

Talking about Medicine ESP Book 2

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2020

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y Jessica Asqui

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Talking about Medicine ESP Book 2

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INTRODUCTION

Nowadays, professionals of different areas must face the current challenges of a globalized world, thus, communicating in the English language has become as important as their major related abilities. English for Specific Purposes (ESP) is an approach to the education of English orientated for specific scientific, medical, technological, economic and academic areas. The ESP aims to satisfy both inside and outside the classroom needs of students who, beyond the learning of the language indeed, require talking about specific topics in certain professional fields. (Hall, 2014)

Most of meaningful academic information about Medicine issues is published in the English language such as: journals, books, scientific websites, and others. It is really important for general and specialized dentist to handle this information in this foreign language in order to reinforce their knowledge and learn about the new tendencies in the dental area. So, mastering the writing, listening, reading, and speaking skills will let them develop all their abilities to participate in academic events, publish papers and books in the English language.

This book is a new educational didactic resource for medical students and professionals who want to improve their English communication skills in a work environment. It includes career-specific vocabulary and contexts. Each lesson provides opportunities for learners to talk about common pathologies in English practicing the four language skills in an interactive form. This book is a complementary instrument for teaching ESP, the experience and professionalism of the teacher in charge will be very important to execute and adapt any section of this according to his/her context. The central goal is to help students in the complex business of learning English for Specific Purposes in order to help them understand books and scientific papers of their area, and attend to international conferences in English. Students or professors who are interested in using this instrument must be at least an A2+. This book was developed taking into account the current needs of students and professionals of medicine, and considering some theoretical issues given by Alamelu and Ilankumaran (2019); Reza, Salehi, and Zhang (2017); Ansaldo and Saidi (2017) and Winder (2018).

The book “Talking about Medicine ESP Book 2” contains 14 lessons which include different tasks that considers topics like: heart, pancreas, liver, lungs, small intestine, large intestine, stomach, masculine reproductive system, female reproductive system, an emergency, the physical examination and health assessment, a surgery, physical examination of the abdomen and pulmonary examination.

All the videos and audios are available for free downloading on: https://liveespochedu-my.sharepoint.com/personal/dtenelanda_esPOCH_edu_ec/_layouts/15/onedrive.aspx?id=%2Fpersonal%2FdtENELANDA%5FesPOCH%5Fed-u%5Fec%2FDocuments%2Flibro%20%20correcciones%20de%20revisor%20Erar&parent=%2Fpersonal%2FdtENELANDA%5FesPOCH%5Fed-u%5Fec%2FDocuments&ct=1596040562850&or=OWA-NT&cid=22bb4acb-330c-c4d5-4ac3-fc4833a8bd1d&originalPath=aHR0cHM6Ly9saXZlZXNwb2NoZW51bGFuZGFfZXNwb2NoX2VkdV9lYy9FWHE2VEh2cm9UaEZ1enBGY-jZoU2RwTUJaODc3Mm5ia203dk1zSi05dmlwd3Z3P3J0aW1lPXk5QmtlOTB-6MkVn

PROLOGUE

Success conscious students know that if they want to get ahead in almost any business or profession, they need to speak, read, and write reasonably well in the language that is considered global: English. Hitting the target in each occupation is something all language teachers should try to do. TALKING ABOUT MEDICINE, ESP-BOOK 2 is a wonderful tool for teachers whose objective is to teach English for Specific Purposes (ESP) in the area of public health.

TALKING ABOUT MEDICINE, ESP-BOOK 2 has fourteen different lessons from which, the first nine talk about different human body organs, and the other five lessons refer to different concepts used in the public health area. The second part of the book has a full answer key that will definitely help both teachers and students ensure their answers. One important aspect of the book is that it fosters the practice of all language skills.

Each of the lessons has different sections, and they are organized in a way in which vocabulary is first presented through catchy ludic activities. Then, there are readings which make the students reason in English and practice the vocabulary previously used. Along the whole book, there are interesting tasks that students will enjoy doing while they learn and practice the vocabulary and structures needed to study, work and interact in the public health world.

Finally, TALKING ABOUT MEDICINE, ESP-BOOK 2 is a practical textbook that has no particular order as to what comes to teaching first. Teachers can easily use it picking a lesson as they need in their school program or as their students' needs command. It will be a wonderful tool for the English teacher who wants to see their students succeed in this particular medical area.

Carmen Cecilia Mejia Calle

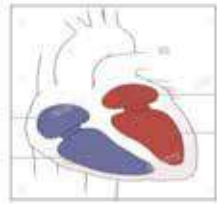
TEFL TEACHER - ESPOCH

LESSON 1: HEART

Before starting. Answer the following question: what do you know about the heart?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a. Delivers



b. Pressure

c. Chambers

d. Backward

e. Covering

f. Vessels



g. Tissue

h. Drain

i. Beating



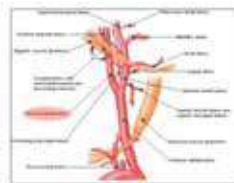
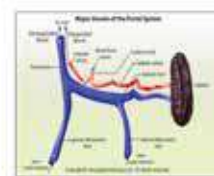
j. Branches

k. Breathe

l. Surround

m. Receives

n. Waste



o. Provide

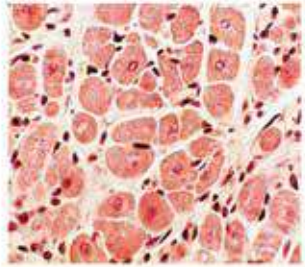
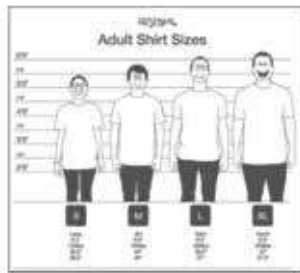
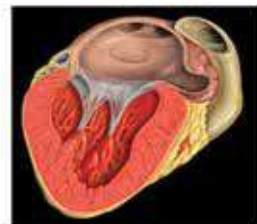
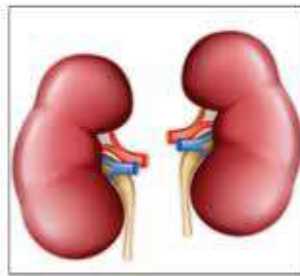
p. Kidneys

q. Size

r. Atrium

s. Pacemaker

t. Carries



TASK 2. Find the following words in the grid.

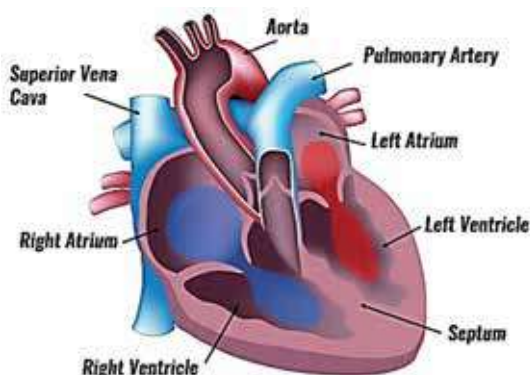
- | | | |
|-------------|--------------|-------------|
| a. Chambers | b. Surround | c. Waste |
| d. Pressure | e. Branches | f. Receives |
| g. Covering | h. Beating | i. Kidneys |
| j. Vessels | k. Pacemaker | l. Atrium |
| m. Delivers | n. Breathe | o. Size |
| p. Backword | q. Carries | r. Provide |
| s. Drain | t. Tissue | |

A	A	E	R	S	U	R	R	O	U	N	D	F	G	H	J	K	L	B
T	S	X	E	T	S	A	W	C	V	N	M	I	O	P	W	E	R	E
R	A	C	S	D	F	G	H	J	K	K	E	R	T	R	Y	U	I	A
I	E	T	H	S	D	F	G	T	D	E	L	I	V	E	R	S	G	T
U	S	U	Q	A	P	Q	V	D	Q	E	R	T	Y	S	P	Y	O	I
M	F	I	A	W	M	W	B	R	A	N	C	H	E	S	D	E	L	N
W	G	K	Z	F	O	B	V	S	G	F	D	S	A	U	V	N	X	G
D	H	L	X	E	U	E	E	F	Ñ	L	K	J	H	R	F	D	S	A
P	A	C	E	M	A	K	E	R	Q	W	E	R	T	E	H	I	J	K
T	J	Ñ	Q	H	I	R	J	G	S	E	P	O	U	Y	T	K	T	R
G	N	I	R	E	V	O	C	H	Z	D	A	V	V	Q	A	P	Z	L
F	R	Q	G	J	B	T	K	J	X	I	S	E	C	W	S	I	X	E
G	E	W	H	K	A	Y	S	K	C	V	D	S	S	E	D	U	U	E
H	C	E	J	L	C	U	E	Ñ	V	O	F	S	W	R	F	S	B	H
J	E	R	K	Ñ	K	I	I	L	B	R	G	E	R	R	S	Y	N	T
K	I	T	C	P	W	O	R	P	N	P	H	L	G	I	G	T	J	A
C	V	Y	V	O	O	U	R	O	M	W	J	S	T	T	H	T	K	E
V	E	U	B	I	R	J	A	I	J	E	K	G	H	U	J	R	R	R
B	S	I	K	U	D	N	C	U	D	R	A	I	N	I	K	Q	D	B

TASK 3.- Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
 e. _____ f. _____ g. _____ h. _____
 i. _____ j. _____ k. _____ l. _____
 m. _____ n. _____ o. _____ p. _____
 q. _____ r. _____ s. _____ t. _____

TASK 4. Read about Heart, then answer the questions below



According to Feher (2012), blood circulation is possible by means of a central pump—the heart and a conduit system—arteries and veins. This circulation system ensures human body cell survival by carrying all the necessary nutrients and removing the waste products of tissue metabolism. The study of blood and the cardiovascular structure is called hemodynamics, and can be analyzed from a biophysical point of view. Similarly, cardiac and vessel structures can be studied from a mechanical point of view. The cardiovascular system can be thought of as the transport system of the body. This system has three main components: the heart, the blood vessel and the blood itself. The heart is the system's pump and the blood vessels are like the delivery routes. Blood can be thought of as a fluid which contains the oxygen and nutrients the body needs and carries the wastes which need to be removed. The following information describes the structure and function of the heart and the cardiovascular system as a whole.

Structure of the Heart

The heart is a muscle about the size of a fist, and is roughly cone-shaped. It is about 12cm long, 9cm across the broadest point and about 6cm thick. The pericardium is a fibrous covering which wraps around the whole heart. It holds the heart in place but allows it to move as it beats. The wall of the heart itself is made up of a special type of muscle called cardiac muscle.

Chambers of the heart

The heart has two sides, the right side and the left side. The heart has four chambers. The left and right side each have two chambers, a top chamber and a bottom chamber. The two top chambers are known as the left and right atria (singular: atrium).

The atria receive blood from different sources. The left atrium receives blood from the lungs and the right atrium receives blood from the rest of the body. The bottom two chambers are known as the left and right ventricles. The ventricles pump blood out to different parts of the body. The right ventricle pumps blood to the lungs while the left ventricle pumps out blood to the rest of the body. The ventricles have much thicker walls than the atria which allows them to perform more work by pumping out blood to the whole body.

Blood Vessels

Blood Vessel are tubes which carry blood. Veins are blood vessels which carry blood from the body back to the heart. Arteries are blood vessels which carry blood from the heart to the body. There are also microscopic blood vessels which connect arteries and veins together called capillaries. There are a few main blood vessels which connect to different chambers of the heart. The aorta is the largest artery in our body. The left ventricle pumps blood into the aorta which then carries it to the rest of the body through smaller arteries. The pulmonary trunk is the large artery which the right ventricle pumps into. It splits into pulmonary arteries which take the blood to the lungs.

Valves

Valves are fibrous flaps of tissue found between the heart chambers and in the blood vessels. They are rather like gates which prevent blood from flowing in the wrong direction. They are found in a number of places. Valves between the atria and ventricles are known as the right and left atrioventricular valves, otherwise known as the tricuspid and mitral valves respectively. Valves between the ventricles and the great arteries are known as the semilunar valves. The aortic valve is found at the base of the aorta, while the pulmonary valve is found the base of the pulmonary trunk. There are also many valves found in veins throughout the body. However, there are no valves found in any of the other arteries besides the aorta and pulmonary trunk. (David, 2006)

What is the Cardiovascular System?

The cardiovascular system refers to the heart, blood vessels and the blood. Blood contains oxygen and other nutrients which your body needs to survive. The body takes these essential nutrients from the blood.

At the same time, the body dumps waste products like carbon dioxide, back into the blood, so they can be removed. The main function of the cardiovascular system is therefore to maintain blood flow to all parts of the body, to allow it to survive. Veins deliver used blood from the body back to the heart. Blood in the veins is low in oxygen (as it has been taken out by the body) and high in carbon dioxide (as the body has unloaded it back into the blood). All the veins drain into the superior and inferior vena cava which then drain into the right atrium. The right atrium pumps blood into the right ventricle. The blood is becomes rich in oxygen which the body can use. From the lungs, blood drains into the left atrium and is then pumped into the left ventricle. The left ventricle then pumps this oxygen-rich blood out into the aorta which then distributes it to the rest of the body through other arteries. (Sánchez, 2003) The main arteries which branch off the aorta and take blood to specific parts of the body are:

- Carotid arteries: which take blood to the neck and head
- Coronary arteries: which provide blood supply to the heart itself
- Hepatic artery: which takes blood to the liver with branches going to the stomach

- Mesenteric artery: which takes blood to the intestines
- Renal arteries: which takes blood to the kidneys
- Femoral arteries: which take blood to the legs

This blood will again return back to the heart through the veins and the cycle continues.

a) What is the function of the pericardium?

.....
.....

b) How many chambers does the heart have? Explain your answer

.....
.....

c) What are the blood vessels?

.....
.....

d) Where are the valves located and what is their function?

.....
.....

e) What is the main function of the cardiovascular system?

.....
.....

f) What are the main arteries that branch out of the aorta?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 1.1 and 1.2 about Human Circulatory System and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 1.1 and 1.2. about Heart. Use the phrases in the box to complete in the blanks.

- a. it can beat more than a hundred thousand times a day
- b. a pump for transport of the blood
- c. the veins return the deoxygenated blood to the right atrium and the cycle begins again
- d. the human heart is made up of four major chambers
- e. in the heart right side between the right atrium and right ventricle
- f. by electrical impulses generated by your heart muscle
- g. are the right and left
- h. located in the chest cavity with its lower tip slightly tilted

The heart is an organ which beats continuously to behave as _____ (1) which carries other substances with it. As long as the person lives, the heart works like a pump nonstop. The heart is _____ (2) towards the left. The heart is typically the size of a fist. There are four chambers in the heart. The two upper chambers are known as the atria or the atrium and the two lower chambers are known as ventricles. The partition between the chambers helps to avoid mixing up of blood rich in oxygen and the blood which is rich in carbon dioxide. The blood flows from the heart to the lungs and then back to the heart from where it is pumped to the rest of the body (Elearnin, 2012)

How does the human heart work?

About the size of your fist the human heart is the most important muscle in the body _____(3) pumping about two thousand gallons of blood through a 60000 mile network of vessels in the body _____(4)the right atrium right ventricle left atrium and left ventricle the right side of the heart receives blood that is low in oxygen from veins all over the body it then pumps the blood through the pulmonary arteries into the lungs where it will become reoxygenate it the left side of the heart receives this oxygen rich blood from the lungs then it pumps the blood through the aorta back out to the rest of the body through a complex network of arteries arterioles and capillaries while blood is circulating through the body it delivers oxygen and nutrients to tissue through the capillaries and at the same time picks up carbon dioxide and other waste material _____(5).

How do the heart's valves work?

The heart four valves each valve is like a one-way door that keeps the blood in the heart flowing in the same direction the valves are made up of two or three small but strong flaps of tissue called leaflets leaflets open to allow blood to flow through the valve and close to prevent blood from flowing backward the opening and closing of the valves is controlled by blood pressure changes within each heart chamber the tricuspid valve is positioned _____(6)the pulmonic valve separates the right ventricle from the pulmonary artery the mitral valve is positioned in the hearts left side between the left atrium and the left ventricle and the aortic valve separates the left ventricle from the aorta

What is coronary artery disease?

As blood circulates through the heart some of the blood flows into a set of much smaller blood vessels that provide blood directly to the heart these arteries called coronary arteries surround or crown the heart this separate circulatory system called coronary circulation keeps the heart nourished and oxygenated, the two main branches of the aorta that nourished the heart _____

(7)main coronary arteries coronary artery disease which occurs when there is a buildup of cholesterol plaque affects the arteries of this circulatory system and causes a decrease in blood flow to the heart muscle resulting in possible damage to the heart or a heart attack

What does the electrical system of your heart look like?

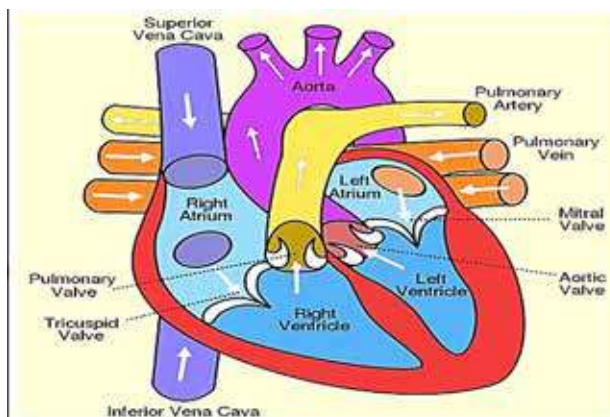
The beating of the heart which is its rhythm is regulated _____
_____ (8) these impulses begin in the sinoatrial node and causes your heart to contract sometimes the sinoatrial node is also referred to as your hearts natural pacemaker since it keeps the heart rate constant and consistent the impulse has then traveled to the atrial ventricular node where the signal is checked and then sent through ventricles which causes them to contract your heart rate can change based upon external conditions such as diet exercise stress or even hormonal factors (Preliminary PDHPE, 2014)

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

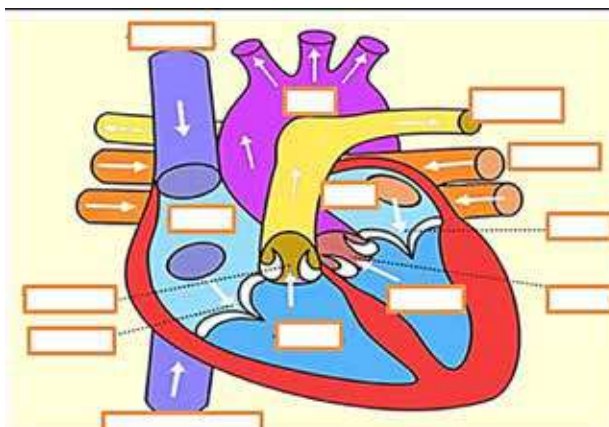
Pump	blood	the human heart	heart muscle	chest cavity
------	-------	-----------------	--------------	--------------

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

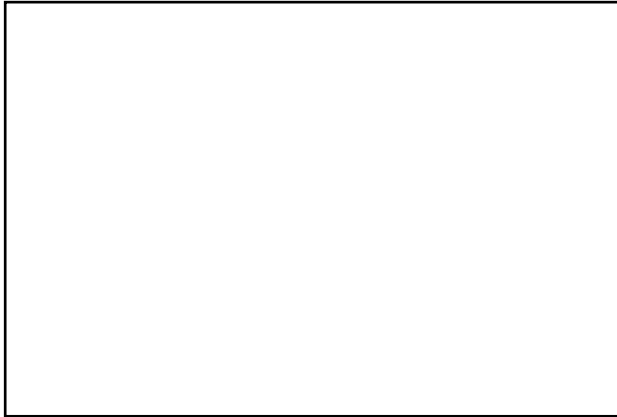
TASK 9. Reinforcement. Look at the parts of the heart. Listen and repeat after your teacher.



TASK 10. Label the picture with the parts in Task 8



TASK 11. Draw the heart with its parts



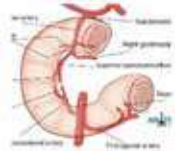
HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 2: PANCREAS

Before starting. Answer the following question: what do you know about the heart?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a. Digestive



b. Blood

c. Pancreas

d. Sugar

e. Stomach

f. Triglyceride

g. Intestine

h. Alcohol

i. Duodenum

j. Tabaco

k. Endocrine

l. Enzymes

m. Exocrine

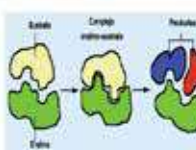
n. Carbohydrates

o. Chemicals

p. Protein

q. Hormones

r. Abdomen



s. Insulin

t. Cholesterol



TASK 2. Find the following words in the grid.

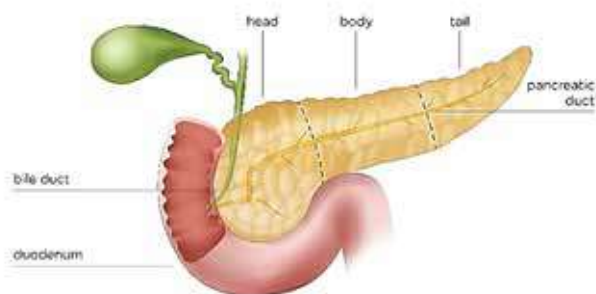
- | | | | |
|--------------|------------------|------------------|--------------|
| a. Enzymes | b. Cholesterol | c. Triglycerides | d. Blood |
| e. Hormones | f. Carbohydrates | g. Alcohol | h. Pancreas |
| i. Insulin | j. Sugar | k. Tabaco | l. Abdomen |
| m. Endocrine | n. Intestine | o. Exocrine | p. Duodenum |
| q. Protein | r. Stomach | s. Digestive | t. Chemicals |

E	B	C	A	B	W	X	B	T	R	I	G	L	Y	C	E	R	I	D	E
N	A	T	A	B	A	C	O	C	V	W	J	C	I	A	Z	N	K	J	N
Z	Z	D	Z	C	V	Y	A	H	U	X	P	A	N	C	R	E	A	S	D
Y	Y	E	A	B	D	O	M	E	N	Y	K	B	H	B	Y	O	L	I	O
M	X	F	Y	D	I	Z	Z	M	T	Z	L	A	G	C	X	P	N	H	C
E	W	G	X	E	G	A	Y	I	S	A	M	Z	F	H	W	Q	M	G	R
S	V	S	W	F	E	B	X	C	A	L	C	O	H	O	L	R	E	F	I
A	U	T	V	G	S	C	W	A	R	B	A	Y	E	R	V	S	A	E	N
B	T	O	U	H	T	D	V	L	Q	C	R	X	D	M	U	T	T	D	E
C	S	M	T	I	I	E	U	S	P	D	B	W	Y	O	Z	A	B	C	I
D	R	A	S	J	V	F	M	C	O	E	O	V	T	N	U	V	W	N	X
E	Q	C	R	K	E	U	T	D	N	F	H	U	O	E	P	Q	T	R	S
F	P	H	Q	L	N	G	S	E	B	G	Y	T	J	S	K	E	L	M	N
G	O	H	P	E	U	H	R	F	L	H	D	S	E	F	S	G	H	I	I
H	N	I	D	M	T	I	Q	G	O	I	R	R	A	T	U	B	C	D	N
P	R	O	T	E	I	N	P	H	O	J	A	Q	I	W	G	X	Y	Z	S
I	U	J	O	N	S	J	O	I	D	K	T	N	R	S	A	T	U	V	U
D	M	K	N	O	R	K	N	J	M	L	E	P	M	N	R	O	P	Q	L
J	L	L	M	P	Q	L	M	K	L	M	S	O	L	K	J	I	H	G	I
K	C	H	O	L	E	S	T	E	R	O	L	N	A	B	C	D	E	F	N

TASK 3. Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about anatomy and physiology of the pancreas, then answer the questions



According to the American Pancreatic Association (2014), the pancreas (meaning all flesh) lies in the upper abdomen behind the stomach. The pancreas is part of the gastrointestinal system that makes and secretes digestive enzymes into the intestine, and also an endocrine organ that makes and secretes hormones into the blood to control energy metabolism and storage throughout the body.

It is worthwhile to mention a few definitions for key terms as used in the context of the pancreas:

Exocrine pancreas, the portion of the pancreas that makes and secretes digestive enzymes into the duodenum. This includes acinar and duct cells with asso-

ciated connective tissue, vessels, and nerves. The exocrine components comprise more than 95% of the pancreatic mass.

Endocrine pancreas, the portions of the pancreas (the islets) that make and secrete insulin, glucagon, somatostatin and pancreatic polypeptide into the blood. Islets comprise 1-2% of pancreatic mass (Hruban, Pitman, & Klimstra, 2007).

The pancreas is a long, slender organ, most of which is located posterior to the bottom half of the stomach. Although it is primarily an exocrine gland, secreting a variety of digestive enzymes, the pancreas also has endocrine cells. Its pancreatic islets—clusters of cells formerly known as the islets of Langerhans—secrete the hormones glucagon, insulin, somatostatin, and pancreatic polypeptide (PP).

It is customary to refer to various portions of the pancreas as head, body, and tail. The head lies near the duodenum and the tail extends to the hilum of the spleen.

When the terms anterior, posterior, front and back are used, they pertain to relationships in the human, standing erect. Superior and inferior are used in the same context so that they mean toward the head and toward the feet, respectively. These usages obviously do not pertain in quadruped animals where dorsal, ventral, cephalad, and caudad are more useful terms.

The tail of the pancreas and spleen are in the left upper quadrant of the abdomen and the head of the pancreas is in the right upper quadrant just to the right of the midline. If you place your right hand over your upper abdomen with fingers extending to the left over the lower portion of your rib cage and the tip of your thumb extended up over the lower portion of the sternum, then your pancreas lies behind your hand in the back (retroperitoneal) portion of the abdomen.

The pancreas is about the size of the half of your hand that includes the index and third fingers excluding the thumb. The pancreas weighs about 100 grams and is 14-20 cm long.

There is no anatomic landmark for the division between the body and tail of the pancreas although the left border of the aorta is sometimes used to mark the junction. (Rahier, Guiot, Goebbels, Sempoux, & Henquin, 2008)

The close proximity of the neck of the pancreas to major blood vessels posteriorly including the superior mesenteric artery, superior mesenteric-portal vein,

inferior vena cava, and aorta limits the option for a wide surgical margin when pancreatectomy (surgical removal of the pancreas) is done.

The common bile duct passes through the head of the pancreas to join the main duct of the pancreas near the duodenum. The portion nearest the liver lies in a groove on the dorsal aspect of the head.

The pancreas has digestive and hormonal functions:

The enzymes secreted by the exocrine gland in the pancreas help break down carbohydrates, fats, proteins, and acids in the duodenum. These enzymes travel down the pancreatic duct into the bile duct in an inactive form. When they enter the duodenum, they are activated. The exocrine tissue also secretes a bicarbonate to neutralize stomach acid in the duodenum.

The main hormones secreted by the endocrine gland in the pancreas are insulin and glucagon. They regulate the level of glucose in the blood, and somatostatin, which prevents the release of the other 2 hormones.

Insulin also reduces blood glucose levels by stimulating glycolysis, the metabolism of glucose for generation of ATP. Moreover, it stimulates the liver to convert excess glucose into glycogen for storage, and it inhibits enzymes involved in glycogenolysis and gluconeogenesis. Finally, insulin promotes triglyceride and protein synthesis. The secretion of insulin is regulated through a negative feedback mechanism. As blood glucose levels decrease, further insulin release is inhibited. (Raichhloz, Giménez, & Dumoulin, 2016)

a) Where is the pancreas located?

.....
.....

b) What are the functions of the pancreas?

.....
.....

c) What does the endocrine function of the pancreas produce?

.....
.....

d) What does the exocrine function of the pancreas produce?

.....
.....

e) What are the parts of the pancreas?

.....
.....

f) How heavy and large is the pancreas?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 2 about Pancreas and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 2 about Pancreas. Use the phrases in the box to complete in the blanks.

- a. between six and ten inches long and two inches wide
- b. an important organ in the digestive system
- c. some genetic conditions that affect the pancreas notably cystic fibrosis
- d. diarrhea bloating, flatulence oily
- e. two functions: endocrine and exocrine
- f. fish and white meats as favorite sources of protein
- g. the duodenum at the major papilla also known as the ampulla of Vater

The pancreas is _____ (1), it is located in the upper abdomen directly behind the stomach and next to the small intestine. In most adults, it is _____ (2). The pancreas is comprised primarily of a network of tubes or pancreatic ducts that release liquids into the upper portion of the small intestine called the duodenum. Anatomically the pancreas is divided into three regions: the head, the body and the tail. The pancreas has _____ (3). It's endocrine function is to produce the chemicals or hormones that regulate blood sugar such as insulin. It's exocrine function is to produce enzymes that help to digest food.

Pancreatic amylase breaks down carbohydrates or starches into glucose proteases break down protein into amino acids and lipases break down fats, because these digestive enzymes so powerful, they are wrapped in a protective layer while they are in the pancreas to reach the gastrointestinal tract the digestive enzymes travel through the pancreatic ducts and are eventually released into _____ (4) once they completely out of the pancreas the protective layer is removed and the enzymes become active. Bile from the gallbladder also enters the duodenum at the major papilla. Bile breaks apart fat into smaller fat droplets which are easier for lipase to digest.

When the pancreas is healthy it contributes to a healthy digestive system. However when our pancreas does not function correctly and is unwell we can have trouble digesting food properly or maintaining our blood sugar in a healthy range the consequences of an unwell pancreas may include _____ (5) and foul-smelling stool weight loss malnutrition poor blood sugar control and diabetes.

Heavy alcohol consumption high-fat diets eating large meals being overweight and Tabaco products can put stress on your pancreas causing it to work less well, there are also _____ (6).

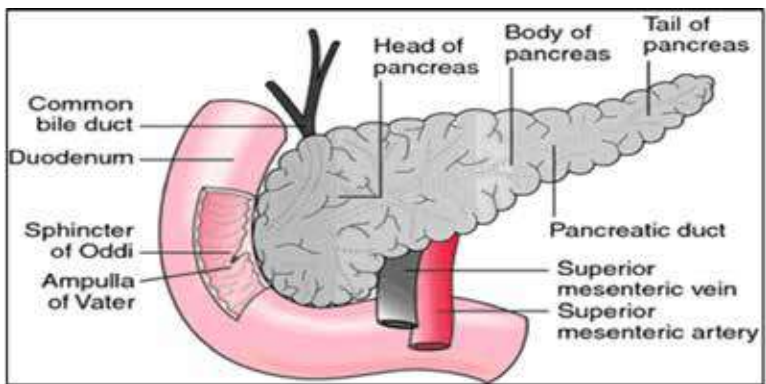
To help keep your pancreas healthy eat a very diet that is rich in fruits and vegetables include _____ (7), limit high-fat foods and alcohol to special occasions maintain a healthy weight and watch your cholesterol and triglyceride levels (ThePancreasPatient, 2013).

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

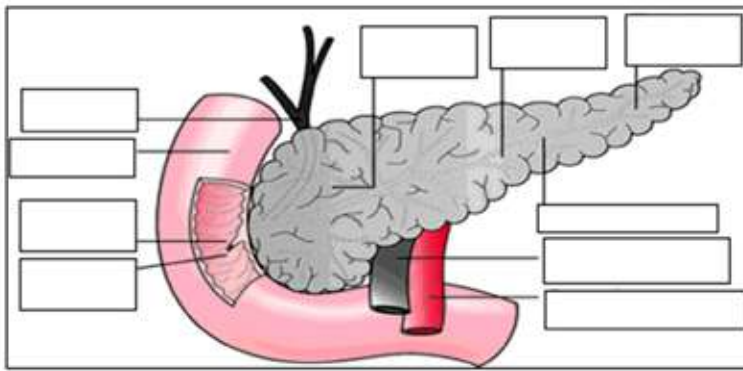
Organ	digestive system	diarrhea	endocrine	protein
-------	------------------	----------	-----------	---------

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

TASK 9. Reinforcement. Look at the parts of the pancreas. Listen and repeat after your teacher.



TASK 10. Label the picture with the parts in Task 9



TASK 11. Draw the pancreas with its parts



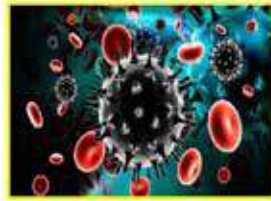
HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 3: LIVER

Before starting. Answer the following question: what do you know about the liver?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

- a. Body
- b. Understand
- c. Aids
- d. Waste
- e. Weighs
- f. Half
- g. Unequal
- h. Harmful
- i. Essential
- j. Mild



*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid

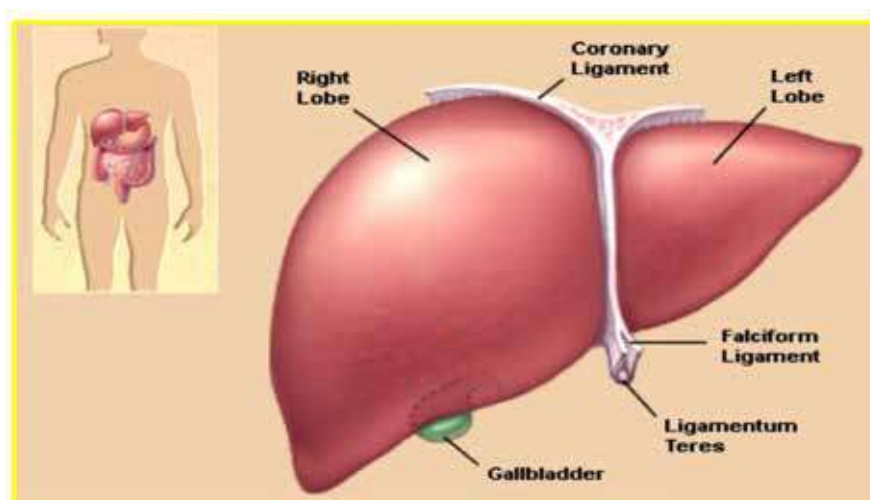
- | | | |
|------------|---------------|--------------|
| a) Unequal | b) Aids | c) Meals |
| d) Mild | e) Bladders | f) Frying |
| g) Well | h) Understand | i) Essential |
| j) Ducts | k) Carry | l) Task |
| m) Supply | n) Harmful | o) Blood |
| p) Body | q) Waste | r) Vessels |
| s) Half | t) Weighs | |

E	A	B	G	E	U	N	E	Q	U	A	L	F	G	H	E	S	X	Z	X
R	A	I	D	S	A	H	J	K	M	E	A	L	S	X	Z	A	D	V	R
W	D	F	A	S	E	R	F	V	B	V	B	B	L	A	D	D	E	R	S
E	D	F	T	H	M	B	C	D	E	R	T	Y	U	I	P	P	K	B	C
L	V	B	N	F	R	Y	I	N	G	M	G	F	A	S	D	C	X	B	U
L	P	O	I	Y	T	R	D	S	E	J	K	M	I	L	D	S	C	V	N
D	F	V	S	C	F	G	H	K	S	L	P	I	G	F	V	B	C	X	D
F	G	H	J	Y	T	R	E	W	S	A	S	C	V	B	H	Y	O	P	E
D	U	C	T	S	A	C	Z	X	E	V	B	G	F	D	S	R	A	E	R
G	F	D	R	R	U	P	O	C	N	F	T	K	D	S	E	R	A	E	S
D	R	T	Y	N	M	K	G	G	T	H	A	J	T	R	S	A	F	R	T
V	F	G	C	A	R	R	Y	S	I	R	S	Q	G	T	H	C	F	B	A
Q	W	X	C	V	N	K	I	T	A	R	K	D	S	E	J	K	L	U	N
C	V	R	F	A	E	G	H	J	L	L	P	O	I	U	T	Y	U	I	D
S	U	P	P	L	Y	G	H	W	A	H	A	R	M	F	U	L	A	C	V
E	R	T	Y	D	U	I	W	E	I	G	H	S	D	W	R	T	L	P	H
A	O	U	O	E	Z	A	Q	B	H	J	K	I	D	R	E	Y	M	N	X
L	O	O	E	Q	M	L	H	A	L	F	F	R	W	E	R	X	D	B	B
B	L	U	S	R	F	J	L	G	D	D	I	K	W	A	S	T	E	O	M
B	E	U	I	V	E	S	S	E	L	S	A	W	D	F	M	G	H	N	B

TASK 3. - Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about Liver, then answer the questions below



The liver weighs about 1900 g. It is located in the right upper quadrant of the abdominal cavity. It consists of two main lobes, the right and the left, which are divided by a ligament, called sickle-cell and the round ligament. “The left lobe has two small lobes: the caudate and the square (García, 2016).

The liver is located in the upper right part of the abdomen, below the diaphragm and above the stomach, the right kidney, and intestines. The liver is an organ of dark reddish brown with a cone shape which weighs about 3 pounds. The hepatic lobule as the functional unit of the body, is classically considered a human liver contains between 50 000 and 100 000 lobules.

The liver has dual blood supply, receives blood from the right and left hepatic arteries (15%) and vena porta (85%). The blood comes out of the hepatic veins, which drain into the lower cellar (Algieri, 2015).

The liver receives blood supply through the following two sources: the oxygenated blood flows to the liver through the hepatic artery. Nutrient-rich blood reaching the liver by vena porta hepatic.

Physiology of the liver

The liver produces bile, stores glycogen, iron, copper, vitamin A, many of the vitamin complex B vitamins, and vitamin D. synthesizes albumin and other proteins, many of these are essential for normal blood clotting (prothrombin and Fibrinogen) and an anticoagulant substance which is heparin (Paéz, 2019).

The liver regulates most of the levels of chemicals in the blood and secretes a substance called bile, which helps to transport the waste from the liver. All the blood that comes out of the stomach and intestines through the liver. The liver processes, breaks down and balances this blood, also creates nutrients and metabolizes the drugs in such a way that the body can use them unless they are toxic.

Vascular functions

The liver receives 30-40% of the cardiac output playing a hemodynamic function by acting in reservoir; so when there is a decrease in blood volume blood reserves go to the general circulation while increasing blood volume, increasing also the vascular reserve in sinusoids liver (García, 2016).

Develops an immune function to the filter and purify blood from the territory portal with the collaboration of Kupffer cells with activity Phagocytic located between the sinusoids and liver and no less important is the high lymphatic flow to It supports the liver (50% of the body)

Metabolic function of the liver

The liver regulates the concentration of glucose that is present in the circulating blood. To perform this function, hepatocytes carry out the following processes for the formation of products from metabolic intermediates (Paéz, 2019)

Storage of glucose (glycogenolysis/genesis): after the digestive process, large amounts of glucose arrive in the liver that is rapidly metabolized by hepatocytes to form glycogen.

Gluconeogenesis: When liver glycogen reserves have been completed, the hepatocyte forms new glucose from the intermediaries of the Krebs cycle and Glycolysis (of Galactose, fructose, amino acids and glycerol)

Bile: is needed for the digestion of food, contains bile salts formed by the liver from the glycocholic acid and acid taurocholic which in turn derive from cholesterol molecule. Bile is excreted into the bile and is stored in the gallbladder where it is ejected into the duodenum when food is ingested. The absorption of fats contained in food is possible thanks to the bile (Algieri, 2015).

Once the liver has broken down harmful substances, by-products are excreted in bile or blood. Bile by-products enter the intestine and leave the body in the form of feces. By-products (blood) seep into the kidneys and leave the body in the form of urine.

a) Where is the liver located?

.....
.....

b) What are the functions of the liver?

.....
.....

c) How many hepatocytes does the liver have?

.....
.....

d) What is the gluconeogenesis?

.....
.....

e) What is the bile's function?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 3 about Liver and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 3 about Liver. Use the phrases in the box to complete in the blanks.

- a. the abdominal aorta and hepatic veins supply and return
- b. a toxin product arising from the digestion of proteins is converted into the less toxic urea
- c. this digestive juice dissolves fat into watery contestants
- d. unequal lobes a large right lobe and a smaller left lobe
- e. make cholesterol and other fats that are needed by the body
- f. vital nutrients and helping in the excretion of waste material
- g. vitamins including iron, vitamin B12 and copper

This video illustrates one of the most used internal parts of the human body the liver one can understand how the liver functions and aids the digestion of food in humans apart from it producing _____
_____ (1) from the body the liver is the largest organ in the human body the liver alone weighs about one and a half to three kilograms in the body. The liver occupies much of the upper right quadrant of the abdomen to the right of the stomach and immediately below of the diaphragm. The liver is divided into two _____ (2).

The liver plays a number of vital roles such as metabolizing the breakdown, products of digestion and detoxifying substances that are harmful to the body. The liver also provides essential energy producing substances and supplies vital _____ (3). The liver controls the production and excretion of cholesterol and metabolizes alcohol into mild toxin. It also performs many important functions including storing iron maintaining the hormonal balance, producing immune factors to fight infections, regulating blood clotting, and producing bile the hepatic portal veins.

Which are blood vessels that carry blood from the gastrointestinal tract and spleen to the liver pick up nutrients and toxins from the stomach and intestines for processing. The hepatic ducts and gall bladders send the processed bile to the duodenum which is about twenty five centimeters long and a c-shape. The stomach opens up into the duodenum through a pyloric sphincter a muscle that acts as a valve that controls a sieve of food from the stomach into the small intestine. _____ (4) blood to the liver. One of the most important functions of the liver is to produce bile _____ (5) much like detergents that dissolve grease from a frying and this juice is stored in the gall bladder between meals during meals it is squeezed out of the gall bladder through the bile ducts and into the intestines to mix with the fat in the blood through the bile ducts. When food medicines, liquids etc. are consumed and digested the cells within the liver that contain a number of powerful enzymes break them down into many toxins. Ammonia _____ (6) by liver. During exercise the liver quickly breaks down the stored glycogen into glucose which is released into the bloodstream to be used by muscles as a source of energy. Another function of the liver is to _____ (7). Maintaining healthy digestive system is essential for the health of the liver and other organs so that they can con-

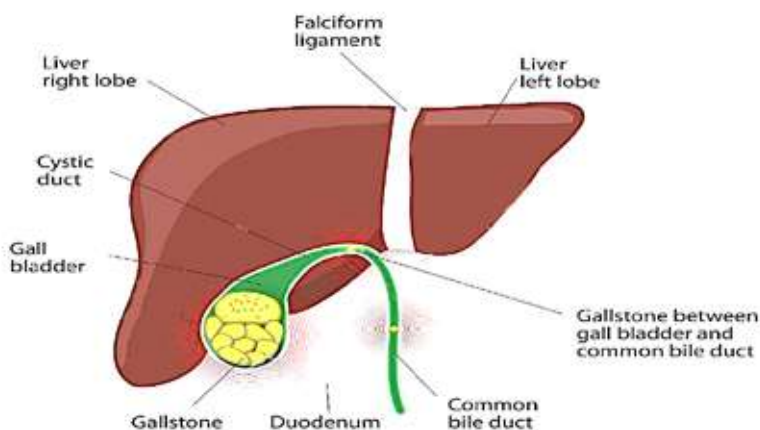
tinue to perform their daily tasks that are vital to the overall health and well-being of a person. (Elearnin, 2013)

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

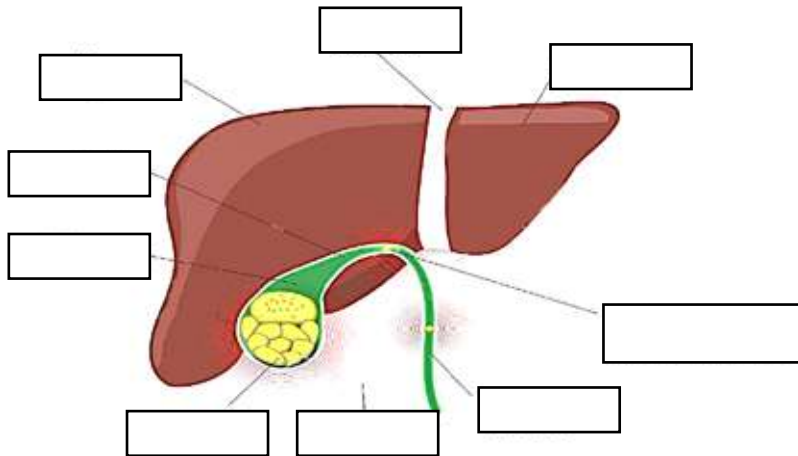
hepatic veins	digestion	digestive juice	cholesterol	vital nutrients
---------------	-----------	-----------------	-------------	-----------------

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

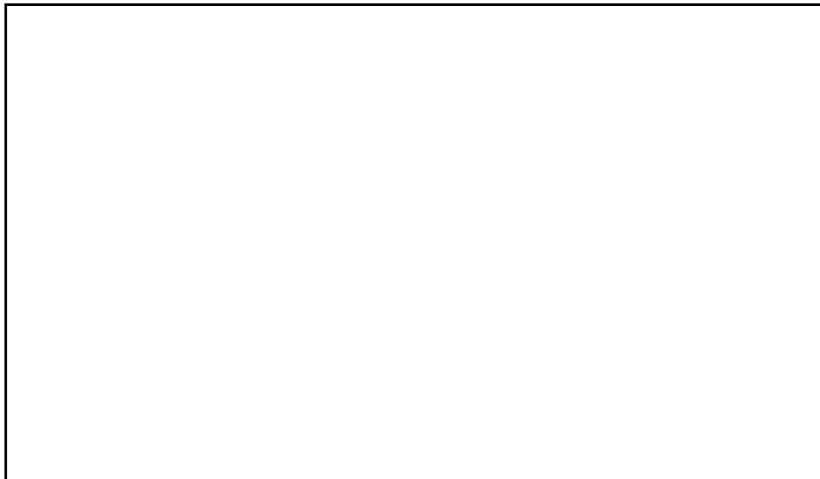
TASK 9. Reinforcement. Look at the parts of the liver. Listen and repeat after your teacher.



TASK 10. Label the picture with the parts in Task 9



TASK 11. Draw the liver with its parts



HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 4: LUNGS

Before starting. Answer the following question: what do you know about the lungs?

TASK 1. Match the words below with the pictures. Listen and repeat.

a. Nostril

b. Breath

c. Cavity

d. Tissue

e. Exhalation

f. Diaphragm

g. Disease

h. Chest

i. Bronchioles

j. Lungs

k. Fissure

l. Ribcage

m. Deflate

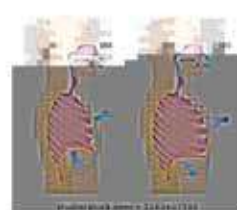
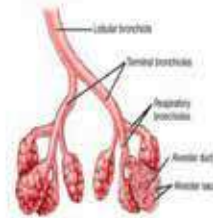
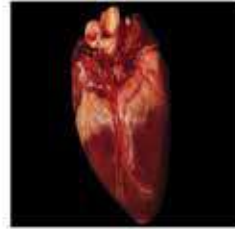
n. Pharynx

o. Bluish

p. Heart

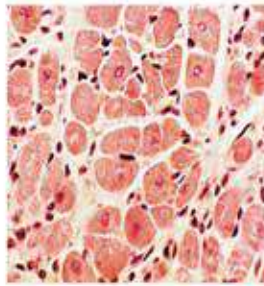
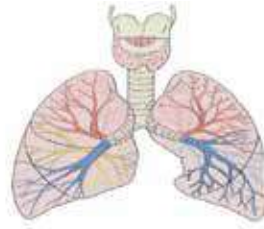
q. Exchange

r. Nose



s. Cough

t. Trachea



*Ask your teacher for the meaning of the words you don't understand



TASK 2. Find the following words in the grid.

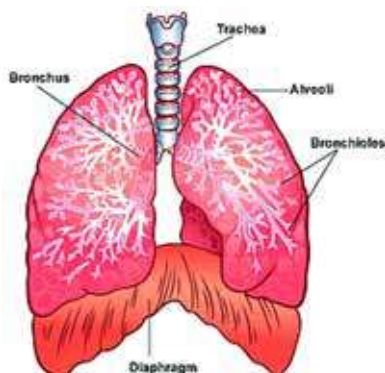
- | | | |
|------------|----------------|--------------|
| a) Nostril | b) Bronchioles | c) Diaphragm |
| d) Fissure | e) Ribcage | f) Pharynx |
| g) Tissue | h) Cavity | i) Heart |
| j) Lung | k) Exhalation | l) Nose |
| m) Cough | n) Exchange | o) Disease |
| p) Deflate | q) Bluish | r) Chest |
| s) Breath | t) Trachea | |

N	D	E	A	B	R	E	A	T	H	E	O	A	E	H	C	A	R	T
O	I	A	X	P	O	N	G	M	O	O	L	N	S	L	C	A	I	A
S	S	D	E	H	H	X	R	E	D	H	D	E	E	U	E	N	E	U
T	G	I	T	E	A	A	A	E	L	R	I	R	R	O	A	S	J	L
R	E	A	U	I	I	L	R	T	O	E	S	E	R	U	S	S	I	F
I	V	P	C	S	E	E	A	Y	A	E	E	A	N	B	I	I	B	I
L	N	H	I	I	S	C	B	T	N	M	A	A	N	R	O	R	T	M
N	C	R	A	D	A	A	A	L	I	X	S	O	S	O	U	E	E	R
E	O	A	P	S	E	V	S	A	U	O	E	U	H	N	R	A	M	P
E	U	G	T	R	R	I	I	O	T	I	N	Y	C	X	U	R	I	A
A	G	M	I	L	T	T	E	A	H	O	S	H	S	E	Q	E	Y	R
P	H	U	S	U	S	Y	H	Q	E	A	I	H	X	T	A	E	D	R
T	N	R	S	N	R	C	E	D	M	O	D	C	E	M	K	S	O	H
C	E	I	U	G	A	G	S	N	L	G	H	T	R	A	E	H	C	A
A	L	A	E	S	A	D	D	E	O	A	T	A	E	V	R	I	A	I
E	N	O	R	C	A	M	S	L	N	S	D	E	F	L	A	T	E	O
I	H	A	B	O	E	H	H	G	E	E	N	E	D	A	E	H	U	N
A	P	I	T	N	N	S	E	H	H	P	C	R	Y	C	S	I	S	O
D	R	T	E	U	E	V	C	S	T	E	N	O	B	E	S	O	N	N

TASK 3. Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about Lungs, then answer the questions below



The human respiratory system is a series of organs responsible for taking in oxygen and expelling carbon dioxide. The primary organs of the respiratory system are lungs, which carry out this exchange of gases as we breathe. (Zimmermann, 2018)

For your lungs to perform their best, these airways need to be open during inhalation and exhalation and free from inflammation or swelling and excess or abnormal amounts of mucus. As the bronchial tubes pass through the lungs, they divide into smaller air passages called bronchioles. The bronchioles end in tiny balloon-like air sacs called alveoli. Your body has over 300 million alveoli. (Blaht, 2017)

The lungs are paired, cone-shaped organs which take up most of the space in the thorax, along with the heart. Their role is to take oxygen into the body, which

we need for the cells to live and function properly, and to help get rid of carbon dioxide, which is a waste product. We have two lungs, a left lung and a right lung. These are divided up into 'lobes', or big sections of tissue separated by 'fissures' or dividers. The right lung has three lobes but the left lung has only two, because the heart takes up some of the space in the left side of our chest. The lungs can also be divided up into even smaller portions, called 'bronchopulmonary segments' (National Heart, Lung and Blood Institute, 2019).

Another important part that helps the lungs in breathing is the diaphragm, a dome-shaped muscle at the bottom of the lungs, controls breathing and separates the chest cavity from the abdominal cavity, the American Lung Association noted. When a breath is taken, it flattens out and pulls forward, making more space for the lungs. During exhalation, the diaphragm expands and forces air out. (Zimmermann, 2018)

The alveoli are surrounded by a mesh of tiny blood vessels called capillaries. Here, oxygen from the inhaled air passes through the alveoli walls and into the blood.

After absorbing oxygen, the blood leaves the lungs and is carried to your heart. Your heart then pumps it through your body to provide oxygen to the cells of your tissues and organs.

As the cells use the oxygen, carbon dioxide is produced and absorbed into the blood. Your blood then carries the carbon dioxide back to your lungs, where it is removed from the body when you exhale. (Blahd, 2017)

The lungs are covered by smooth membranes that we call pleurae. The pleurae have two layers, a 'visceral' layer which sticks closely to the outside surface of your lungs, and a 'parietal' layer which lines the inside of your chest wall (ribcage). The pleurae are important because they help you breathe in and out smoothly, without any friction. They also make sure that when your ribcage expands on breathing in, your lungs expand as well to fill the extra space.

The lungs are very vascular organs, meaning they receive a very large blood supply. This is because the pulmonary arteries, which supply the lungs, come directly from the right side of your heart. They carry blood which is low in oxygen and high in carbon dioxide into your lungs so that the carbon dioxide can be blown off, and more oxygen can be absorbed into the bloodstream. The newly

oxygen-rich blood then travels back through the paired pulmonary veins into the left side of your heart. From there, it is pumped all around your body to supply oxygen to cells and organs.

Diseases of the Respiratory System

Diseases and conditions of the respiratory system fall into two categories: viruses, such as influenza, bacterial pneumonia, enterovirus respiratory virus; and chronic diseases, such as asthma and chronic obstructive pulmonary disease (COPD). According to Dr. Neal Chaisson, who practices pulmonary medicine at the Cleveland Clinic, there is not much that can be done for viral infections but to let them run their course. “Antibiotics are not effective in treating viruses and the best thing to do is just rest,” he said.

Chronic Obstructive Pulmonary Disease

COPD is the intersection of three related conditions — chronic bronchitis, chronic asthma and emphysema, Chaisson told Live Science. It is a progressive disease that makes it increasingly difficult for sufferers to breathe.

Asthma

Asthma is a chronic inflammation of the lung airways that causes coughing, wheezing, chest tightness or shortness of breath, according to Tonya Winders, president of the Allergy & Asthma Network. These signs and symptoms may be worse when a person is exposed to their triggers, which can include air pollution, tobacco smoke, factory fumes, cleaning solvents, infections, pollens, foods, cold air, exercise, chemicals and medications.

Lung cancer

Lung cancer is often associated with smoking, but the disease can affect non-smokers as well. Every year, about 16,000 to 24,000 Americans die of lung cancer, even though they have never smoked. In 2018, the American Cancer So-

ciety estimates there will be about 234,030 new cases of lung cancer (121,680 in men and 112,350 in women) and around 154,050 deaths from lung cancer (83,550 in men and 70,500 in women) (Ganong, 1995).

a) What is the respiratory system?

.....
.....

b) What is the most important function of the lungs?

.....
.....

c) What organ helps the lungs in the breathing process?

.....
.....

d) What are the pleural membranes?

.....
.....

e) What are the arteries that supply the lungs?

.....
.....

f) What are the two categories that classify lung diseases?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 4 about Lungs and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 4 about Lungs. Use the phrases in the box to complete in the blanks.

- a. The trachea has incomplete C shaped rings of cartilage which prevent the tracheal wall from collapsing.
- b. A section of one alveolus shows the presence of numerous alveolar chambers with pores
- c. In humans the main organs responsible for respiration are present in the thoracic cavity
- d. The oxygen molecules from the alveolus diffuse into the capillary and then get absorbed by the bluish purple RBC's.
- e. This process of inhalation and exhalation is known as respiration.
- f. Both the lungs are associated externally with small tubular bronchi, which unite and extend into the trachea
- g. They are collected in the alveolar chamber and then from the alveolus it travels through the bronchioles

To understand the process of breathing, _____
_____(1),
in the thorax region the ribcage and a dome-shaped fibrous tissue known as the diaphragm are observed, present within the ribcage are the pleural membranes which includes the lungs.

The right lung is divided into 3 lobes: the right superior, the right middle, the right inferior lobe. The left lung is smaller and has only two lobes: the left superior and left inferior lobe. Both the lungs are associated externally with small tubular bronchi, which unite and extend into the trachea. _____
_____(2). The trachea leads into the pharynx, which is connected to the nostrils as we breathe in air the oxygen molecules enter the nostril and travel downwards through the pharynx and trachea to finally reach the bronchi.

From each bronchus oxygen travels into the lungs, within the lungs the bronchus divides repeatedly to form bronchioles, oxygen travel through these bronchioles and reaches the alveoli each of which is surrounded by a network of capillaries. _____ (3).

Blood containing RBC's is seen flowing through the capillaries. _____

_____ (4),
this causes oxygenation of the RBC's and a transition in their color from bluish purple to red is observed. The blood moving into the alveolus contain RBC's in carbon dioxide molecules. These molecules are released into the alveolus. The carbon dioxide collects in the alveolar chamber and then from the alveolus is travels through the bronchioles, into the bronchus.

Which finally reaches the trachea and is breathed out through the nostrils, so the process of breathing in air rich in oxygen is called inhalation. After the contraction of the muscular diaphragm the lung expand and the air rushed in resulting in the inflation of the alveoli during exhalation the diaphragm moves up and the lungs contract thus the alveoli deflate causing the air to be forced out, this exhaled air is rich in carbon dioxide _____ (5).
Which is approximately 20 time per minute

SUMMARY

In the thorax region, the ribcage and the diaphragm are observed, which play a vital role in respiration, present within the ribcage are the pleural membranes, which enclose the lungs. The right lung consists of three lobe, while the left lungs has only two lobes. _____
_____ (6), as we breathe the oxygen molecules enter the nostrils and travel downwards through the pharynx and trachea. To finally reach the bronchi from each bronchus, oxygen travels into the lungs within the lungs, the bronchus divides repeatedly form bronchioles oxygen travels through these bronchioles and reaches the alveoli, each of which is surrounded by a network of capillaries. As blood flows through the capillaries. The oxygen molecules from the alveolus diffuse into the capillary, this causes oxygenation of the RBC's.

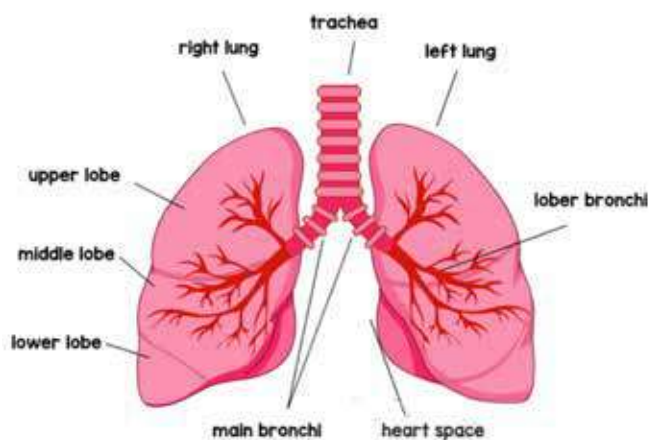
The carbon dioxide molecules are released into the alveolus. _____
_____ (7). Into the bronchus, which finally reaches the trachea and is breathed out through the nostrils (Designmate Pvt, 2015)

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

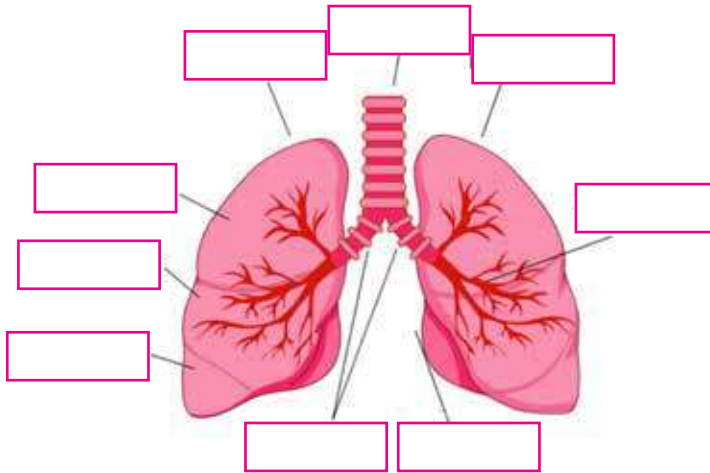
Trachea alveolus thoracic cavity inhalation exhalation alveolar chamber

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

TASK 9. Reinforcement. Look at the parts of the lungs. Listen and repeat after your teacher



TASK 10. Label the picture with the parts in Task 9



TASK 11. Draw the lungs with their parts



HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 5: SMALL INTESTINE

Before starting. Answer the following question: what do you know about the small intestine?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

a. Fulfills

b. development

c. Cell Turnover

d. Velvety

e. Stomach Flu

f. Flushing

g. Stomach Cramps

h. Pain

i. Renewed

j. Such As Bacterial

k. Digestión

l. Absorption

m. Barrier

n. Surface

o. Belly Distensión

p. Or Twisted

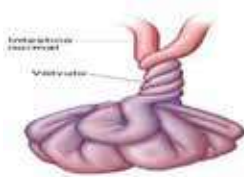
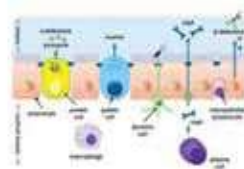
q. Crohn.S Disease

r. Threatening



s. Esophagus

t. Endoscope



*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid

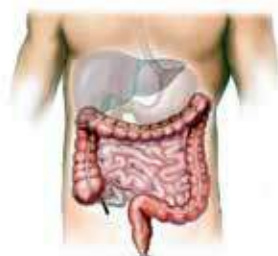
- a. Fulfills
- b. Development
- c. Cell Turnover
- d. Velvety
- e. Stomach Flu
- f. Flushing
- g. Stomach Cramps
- h. Pain
- i. Renewed
- j. Such as
- k. Bacterial Digestion
- l. Absorption
- m. Barrier
- n. Surface
- o. Belly Distension
- p. Or Twisted
- q. Crohn's Disease
- r. Threatening
- s. Esophagus
- t. Endoscope

A	Q	W	F	Q	W	E	R	T	Y	U	I	O	P	A	S	D	F	G	H	J	E	Q	F	A
B	A	Q	G	S	D	G	P	A	I	N	E	R	T	H	N	J	B	E	F	G	N	E	S	S
C	S	Z	V	Z	X	C	V	B	N	M	J	H	G	F	D	S	A	R	U	A	D	A	T	D
S	U	C	K	A	S	B	A	C	T	E	R	I	A	L	F	G	R	F	J	S	O	S	O	C
U	W	E	H	A	S	D	F	G	H	J	K	L	P	O	I	U	R	V	D	Z	S	X	M	E
R	E	R	Y	E	D	F	G	H	J	K	L	I	U	Y	T	R	I	C	I	D	C	C	A	F
F	D	T	N	S	T	O	M	A	C	H	F	L	U	A	B	C	E	V	G	L	O	C	C	V
A	X	Y	R	Q	S	D	F	G	H	J	K	L	P	O	I	U	R	B	E	U	P	V	H	B
C	C	U	E	A	E	R	E	N	E	W	E	D	E	F	C	E	B	N	S	Y	E	S	C	H
E	V	I	W	D	F	G	H	J	K	L	O	I	U	M	N	B	V	F	T	W	F	G	R	O
D	F	O	Q	A	S	D	F	G	H	V	R	E	B	F	L	U	S	H	I	N	G	H	A	R
E	R	P	A	Q	S	D	V	B	N	M	J	O	P	E	G	F	Q	B	O	S	Y	H	M	T
F	T	P	V	G	J	H	N	M	B	V	C	A	S	D	F	R	A	G	N	D	H	K	P	W
G	G	B	E	L	L	Y	D	I	S	T	E	N	S	I	O	N	Z	T	D	H	Q	L	S	I
H	B	P	L	A	S	D	F	G	H	V	R	E	B	H	J	I	D	V	F	E	S	M	E	S
J	N	O	V	A	S	D	F	G	H	V	R	E	B	A	S	D	C	F	C	S	X	A	R	T
R	H	C	E	L	L	T	U	R	N	O	V	E	R	F	K	L	V	C	V	O	C	B	T	E
T	Y	I	T	H	R	E	A	T	E	N	I	N	G	H	Y	U	F	D	B	P	F	S	Y	D
F	U	U	Y	E	R	U	Q	W	E	R	T	Y	U	I	O	P	R	E	H	H	V	O	U	Q
V	J	U	Q	D	F	Y	D	E	V	E	L	O	P	M	E	N	T	W	K	A	B	R	O	W
G	M	Y	A	X	G	H	A	S	D	F	G	H	J	K	L	O	T	S	T	G	H	P	K	E
B	C	R	O	H	N	D	I	A	S	E	S	R	T	Y	Q	I	M	X	P	U	N	T	N	R
D	L	T	T	H	J	K	L	P	I	U	Y	T	R	E	R	U	N	Z	Y	S	M	I	V	T
W	P	R	G	F	U	L	F	I	L	S	G	G	H	Q	Y	H	A	E	R	K	O	C	Y	
W	B	E	T	T	G	Y	H	N	B	V	C	Z	F	D	A	T	Y	Q	S	F	I	N	D	B

TASK 3.- Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about small intestine, then answer the questions below



The small intestine is the section of the digestive system that connects the stomach with the large intestine. It is divided into three parts: duodenum, jejunum and ileum. Small intestine. It fulfills the functions of digestion, absorption, barrier and also immunity. It is one of the organs with the highest number of cell turnover in the whole body, since its entire internal surface is renewed every five days (Sous & Rodrigues, 2015)

The small intestine is the major site for digestion, drug and nutrient absorption, interaction with commensal microbiome, and development of mucosal immunity, as well as a primary site for many diseases, such as bacterial, viral and parasitic infections and inflammatory bowel disease.

The intestines are a long, continuous tube running from the stomach to the anus. Most absorption of nutrients and water happen in the intestines. The intestines include the small intestine, large intestine, and rectum.

The small intestine (small bowel) is about 20 feet long and about an inch in diameter. Its job is to absorb most of the nutrients from what we eat and drink.

Velvety tissue lines the small intestine, which is divided into the duodenum, jejunum, and ileum.

The small intestine absorbs the necessary nutrients for the body. It is located between two sphincters: the pyloric, and the ileocecal, which communicates with the large intestine. It constitutes the largest mucous surface of the organism. Its length varies between 3 and 7 meters, depending on numerous variables such as the size of the individual. In the corpse, as a consequence of hypotonic of the smooth muscle, its length increases.

It has a layer of cells inside that form a barrier. Its mission is, in addition to digesting substances, acting defending the organism of the enemy outside the environment (substances that we ingest and microorganisms present in the intestine). This is achieved by keeping closed the intercellular tight junctions, to prevent uncontrolled access of substances, toxins, chemicals, microorganisms and macromolecules, which otherwise could enter the bloodstream. Currently, it is known that narrow junctions, previously considered as static structures, are in fact dynamic and adapt easily to various circumstances, both physiological and pathological. There is a complex regulatory system that orchestrates the state of assembly of the protein network of the intercellular tight junctions. When the entrances between the cells (the narrow intercellular unions) do not work well and instead of being closed or practically closed, as they should be, they are open without control, an increase of the intestinal permeability takes place. This opening causes substances to enter the body and, depending on the genetic predisposition of the person, can develop autoimmune diseases, inflammatory, infections, allergies or cancers, both intestinal and other organs.

The chyme that is created in the stomach, formed by the food bolus mixed with hydrochloric acid, pepsinogen and other substances from peristaltic movements, is mixed in turn with the biliary and pancreatic secretions (in addition to the duodenal itself) to avoid break the layers of the small intestine (since it has a highly acid pH) and is taken to the duodenum. The alimentary transit continues through this tube along which the process of digestion is completed, the chyme is transformed into chyle and the absorption of the useful substances is affected (Alessio , 2017).

Intestine Conditions

- Stomach flu (enteritis): Inflammation of the small intestine. Infections (from viruses, bacteria, or parasites) are the common cause.
- Small intestine cancer: Rarely, cancer may affect the small intestine. There are multiple types of small intestine cancer, causing about 1,100 deaths each year.
- Celiac disease: An “allergy” to gluten (a protein in most breads) causes the small intestine not to absorb nutrients properly. Abdominal pain and weight loss are usual symptoms.
- Carcinoid tumor: A benign or malignant growth in the small intestine. Diarrhea and skin flushing are the most common symptoms.
- Intestinal obstruction: A section of either the small or large bowel can become blocked or twisted or just stop working. Belly distension, pain, constipation, and vomiting are symptoms.
- Crohn’s disease: An inflammatory condition that usually affects the colon and intestines. Abdominal pain and diarrhea (which may be bloody) are symptoms.
- Ulcerative colitis: An inflammatory condition that usually affects the colon and rectum. Like Crohn’s disease, bloody diarrhea is a common symptom of ulcerative colitis.
- Diarrhea: Stools that are frequent, loose, or watery are commonly called diarrhea. Most diarrhea is due to self-limited, mild infections of the colon or small intestine.
- Salmonellosis: Salmonella bacteria can contaminate food and infect the intestine. Salmonella causes diarrhea and stomach cramps, which usually resolve without treatment.
- Shigellosis: Shigella bacteria can contaminate food and infect the intestine. Symptoms include fever, stomach cramps, and diarrhea, which may be bloody.
- Traveler’s diarrhea: Many different bacteria commonly contaminate water or food in developing countries. Loose stools, sometimes with nausea and

fever, are symptoms.

- Constipation: When bowel movements are infrequent or difficult.
- Irritable bowel syndrome (IBS): Irritable bowel syndrome, also known as IBS, is an intestinal disorder that causes irritable abdominal pain or discomfort, cramping or bloating, and diarrhea or constipation.
- Intussusception: Occurring mostly in children, the small intestine can collapse into itself like a telescope. It can become life-threatening if not treated. (Blum, 2012)

Intestine Tests

- Capsule endoscopy: A person swallows a capsule that contains a camera. The camera takes pictures of possible problems in the small intestine, sending the images to a receiver worn on the person's belt
- Upper endoscopy, EGD (esophagogastroduodenoscopy): A flexible tube with a camera on its end (endoscope) is inserted through the mouth. The endoscope allows examination of the duodenum, stomach, and esophagus.
- Fecal occult blood testing: A test for blood in the stool. If blood is found in the stool, a colonoscopy may be needed to look for the source.

Intestine Treatments

- Antidiarrheal agents: Various medicines can slow down diarrhea, reducing discomfort. Reducing diarrhea does not slow down recovery for most diarrheal illnesses.
- Stool softeners: Over-the-counter and prescription medicines can soften the stool and reduce constipation.
- Laxatives: Medicines can relieve constipation by a variety of methods including stimulating the bowel muscles, and bringing in more water.
- Enema: A term for pushing liquid into the colon through the anus. Enemas can deliver medicines to treat constipation or other colon conditions. (DerSarkissian, 2017)

a) What is the main function of the small intestine?

.....
.....

b) What is the small intestine?

.....
.....

c) What are the parts of the small intestine?

.....
.....

d) What is the small intestine located?

.....
.....

e) What are the morphological characteristics of the small intestine?

.....
.....

f) What is the irrigation of the small intestine?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 5 about Small intestine and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 5 about Small intestine. Use the phrases in the box to complete in the blanks

- a. The first part of the small intestine is called the duodenum
- b. The most absorption of nutrients is going to happen in your jejunum
- c. Then sent down the esophagus word ends
- d. two different things bile salts and bile pigments
- e. this is the inside of our duodenum
- f. have a bunch of projections
- g. little tube connected right there
- h. we say brush border enzymes

Did you know that the stomach flu can make you temporarily lactose intolerant it's true, so this video will talk about how that happens and in detail how the small intestine works, so, as a review Once you put food into your oral cavity or your mouth gets chewed up and _____ (1) up in the stomach where it's at and then introduced to acid where it gets broken down into chyme and then delivered into the first part of the small intestine. Now the small intestine has three different parts to it so let's take a better look. So, _____ (2) the duodenum. This receives the chyme that just got processed in the stomach and it's the part of the entire GI tract where the most digestion occurs. The most break down of food products will happen in the duodenum, alright, so the next part of the small intestine is called the jejunum. I'll just write that right here the jejunum and this is the part of the entire GI tract where the most absorption occurs. Anywhere, so, _____ (3) the jejunum, then finally after your food passes to the jejunum gets to the last part of the small intestine and that's called the ileum, so, this doesn't have a superlative like the most digestion or the most absorption, but there are some pretty important things that are absorbed here, things like vitamin B12, vitamins A-D-E-K. So, there are some important things that are absorbed here. I'm just going to write important absorption. There are some important things that are absorbed in your ileum now the busiest part of your small intestine is the duodenum because there are a bunch of things that are involved in this digestion process so there are four key things to keep in mind first of all your stomach is going to be delivering a bunch of time or processed food into the duodenum so you're going to be working with all I'm here in addi-

tion you're going to have some stomach acid that process fluid into chyme that's going to be present in the duodenum in addition to the stomach the liver and the gallbladder are also going to be important to deliver bile to your duodenum so they give bile and as I'll talk about in a subsequent video, bile is composed of _____ (4) and beyond the liver and the gallbladder the pancreas also delivers a couple of very important enzymes for digestion here so I'm just going to write enzymes for now and in a minute I'm going to go through and talk about which enzymes are delivered by the pancreas and then finally the duodenum itself has what are called brush border enzymes brush border enzymes that very important for activation of certain azymes and also for digestion of several nutrients that we're going to discuss so let's talk a little more about this brush border now if I were to make a little drawing of the duodenum right here remember that first part of our small intestine I would draw just this _____ (5) and then blow up the Wall I want to take a better look at what's going on right there we would find then that there's a whole bunch of things you just meets the eye first of all the Wall isn't just a straight line there's actually a bunch of in folding that are present on the Wall help increase surface area think about it if we're trying to digest as much as we can here we need to make sure that there are a lot of projections or a lot of space where we can make contact with the food that's passing by so if _____ (6) and this is the outside just like how we drew up here that's in and that's out you can notice that this Wall here has a whole bunch of projections on it these projections are called villi and a single one of them is just called a villus just a single villus and these are just a couple of folds or these outpouching x' that help increase the surface area of our duodenum that's not where the story ends if we take a closer look at one of these villi then we'd find that there are even more projection sitting on that even smaller microscopic projections so for this single villus that had a horizontal line right here for its shape if I were to draw it out here you would notice that it's not a straight line but instead these also _____ (7) that are present on them and if you were to guess why all these projections aren't there I'm sure you'd say to further increase our surface area that's sort of the name of the game when we're in the small intestine to increase our surface area and so these little guys cutely enough are called micro villi micro villi and a single one is just called a micro villus so we've got these villi right here or the single villus that you can see if you just blow up the Wall of the duodenum and then if you blow up a single villus you'll find that they have a whole bunch of micron villi that are found on

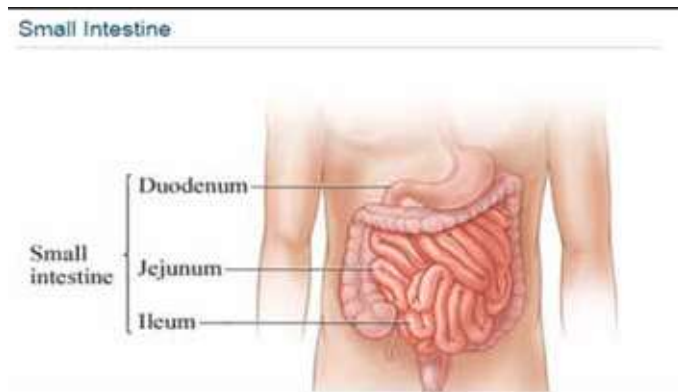
them too to increase our surface area because that allows for better digestion and when _____ (8) these are whole bunch of enzymes that are present on this brush border because think about it these villi micro villi they're no different from bristles on a comb they act to increase surface area or places where you're going to have interaction with food that you want to digest so there enzymes that are present on this brush border so just to make the point all of these micro villi and villi together that's what makes up the brush border of our duodenum, the brush border which is the increased surface area of the Wall helps to digest food with our brush border enzymes taht are present and as we'll see later in the jejunum it helps for absorption so now let's talk about the digestion process in detail.(Narayan, 2014)

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

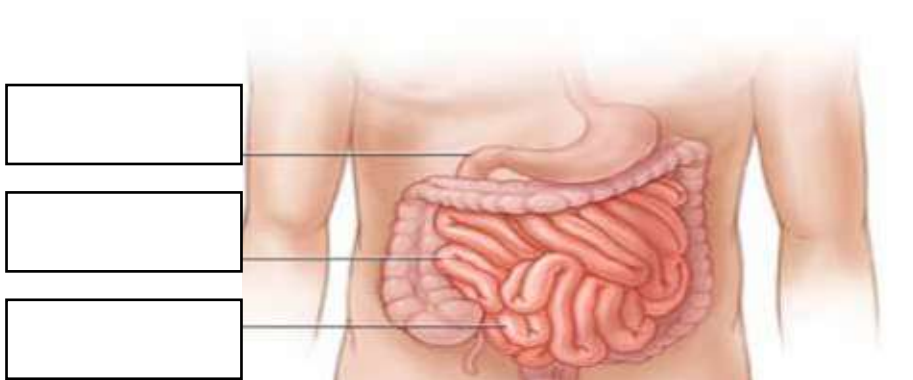
Lactose small intestine stomach duodenum jejunum
--

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

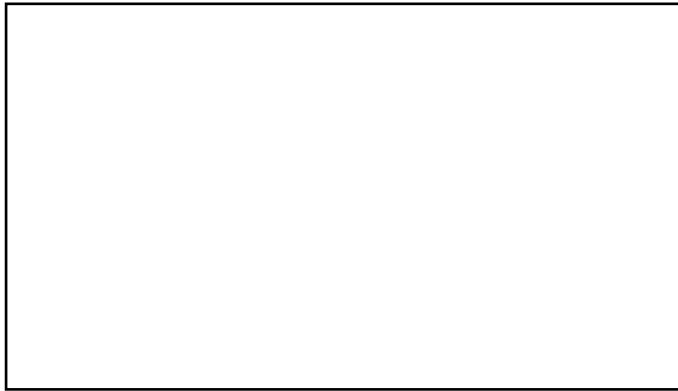
TASK 9. Look at the parts of the small intestine. Listen and repeat after your teacher



TASK 10. Label the picture with the parts in Task 9.



TASK 11. Draw the small intestine with its parts.



HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 6: LARGE INTESTINE

Before starting. Answer the following question: what do you know about the large intestine?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a) Smooth

b) Features

c) Within

d) Sinus

e) Both

f) Attached

g) Strong

h) Pouches

i) Dentate

j) Wrinkled

k) Appendages

l) Hindgut

m) Jagged

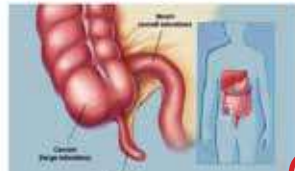
n) Sac-like

o) Whereas

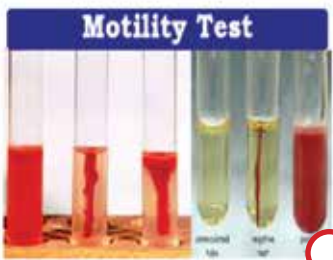
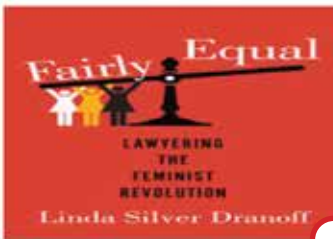
p) Sphincter

q) Below

r) Remain



- s) Fairly
- t) Both



*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid

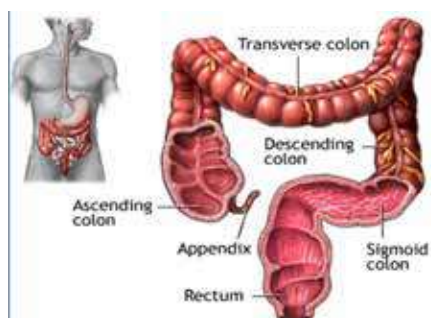
- a. Valve b. Straight c. Anal d. Pelvis e. Appendix
 f. Colon g. Water h. Vitamin i. Skeleton j. Dentate
 k. Bonus l. Mucosa m. Mobility n. Feces o. Function
 p. Diverticulitis q. Fecalitus r. Peritoneum s. Ileus t. Hemorrhage

E	E	T	D	N	P	E	L	V	I	S	E	O	P	D	T	N	E	E
C	S	E	E	T	A	L	C	S	R	A	V	E	P	O	L	G	A	L
A	O	M	M	T	T	T	C	I	M	E	A	A	A	C	A	O	V	V
D	S	E	S	T	V	S	T	I	E	O	C	A	L	H	R	S	O	A
D	U	M	N	A	P	P	E	N	D	I	X	T	R	V	E	D	A	S
A	I	V	E	U	I	S	O	S	V	D	R	R	U	C	E	R	G	K
P	C	V	I	P	A	E	I	V	T	I	O	I	E	M	E	L	N	E
L	A	W	E	T	O	B	N	I	C	M	T	F	N	T	R	M	M	L
A	L	A	O	R	N	L	S	I	E	N	B	A	A	I	E	O	U	E
Q	R	T	C	F	T	R	N	H	R	P	O	T	M	P	E	B	C	T
E	R	E	I	E	E	I	S	S	I	T	N	S	S	I	C	I	O	O
Y	A	R	C	C	E	U	C	O	A	E	U	U	C	I	N	L	S	N
D	I	V	E	A	E	S	A	U	D	N	S	P	A	U	U	I	A	G
A	D	U	N	L	I	X	U	A	L	O	A	M	O	D	L	T	G	E
D	S	U	I	I	C	P	M	E	E	I	A	N	E	A	I	Y	L	I
M	I	E	I	T	E	I	P	E	R	I	T	O	N	I	U	M	E	I
I	S	C	S	U	O	E	O	V	S	V	U	I	C	O	L	O	N	V
G	S	L	D	S	S	S	H	T	I	R	O	A	S	A	I	L	S	S
T	I	F	U	N	C	T	I	O	N	R	A	N	A	L	N	D	R	A

TASK 3. Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about the large intestine, then answer the questions below



Anatomy

The large intestine is within the alimentary tract where water is absorbed from indigestible contents.

Three features are unique to the large intestine: teniae coli, haustra, and epiploic appendages. The teniae coli are three bands of smooth muscle that make up the longitudinal muscle layer of the muscularis of the large intestine, except at its terminal end. Tonic contractions of the teniae coli bunch up the colon into a succession of pouches called haustra (singular = hostrum), which are responsible for the wrinkled appearance of the colon. Attached to the teniae coli are small, fat-filled sacs of visceral peritoneum called epiploic appendages. The purpose of these is unknown. Although the rectum and anal canal have neither teniae coli nor haustra, they do have well-developed layers of muscularis that create the strong contractions needed for defecation. (Biga, Dawson, & Harwell, 2013)

The stratified squamous epithelial mucosa of the anal canal connects to the skin on the outside of the anus. This mucosa varies considerably from that of the rest of the colon to accommodate the high level of abrasion as feces pass through. The anal canal's mucous membrane is organized into longitudinal folds, each called an anal column, which house a grid of arteries and veins. Two superficial venous plexuses are found in the anal canal: one within the anal columns and one at the anus.

Depressions between the anal columns, each called an anal sinus, secrete mucus that facilitates defecation. The pectinate line (or dentate line) is a horizontal, jagged band that runs circumferentially just below the level of the anal sinuses, and represents the junction between the hindgut and external skin. The mucosa above this line is fairly insensitive, whereas the area below is very sensitive. The resulting difference in pain threshold is due to the fact that the upper region is innervated by visceral sensory fibers, and the lower region is innervated by somatic sensory fibers (Azzouz & Sharma., 2018)

Embryology

Azzouz and Sharma (2018) say that Embryologically, the colon develops from the midgut (cecum to the distal transverse colon), the hindgut (distal transverse colon to the dentate line in the anorectum), and the proctodeum (below the dentate line).

Subdivisions

The large intestine is subdivided into four main regions: the cecum, the colon, the rectum, and the anus. The ileocecal valve, located at the opening between the ileum and the large intestine, controls the flow of chyme from the small intestine to the large intestine.

Cecum

The first part of the large intestine is the cecum, a sac-like structure that is suspended inferior to the ileocecal valve. It is about 6 cm (2.4 in) long, receives

the contents of the ileum, and continues the absorption of water and salts. The appendix (or vermiform appendix) is a winding tube that attaches to the cecum. Although the 7.6-cm (3-in) long appendix contains lymphoid tissue, suggesting an immunologic function, this organ is generally considered vestigial. However, at least one recent report postulates a survival advantage conferred by the appendix: In diarrheal illness, the appendix may serve as a bacterial reservoir to repopulate the enteric bacteria for those surviving the initial phases of the illness. Moreover, its twisted anatomy provides a haven for the accumulation and multiplication of enteric bacteria. The mesoappendix, the mesentery of the appendix, tethers it to the mesentery of the ileum.

Colon

The cecum blends seamlessly with the colon. Upon entering the colon, the food residue first travels up the ascending colon on the right side of the abdomen. At the inferior surface of the liver, the colon bends to form the right colic flexure (hepatic flexure) and becomes the transverse colon. The region defined as hindgut begins with the last third of the transverse colon and continues on. Food residue passing through the transverse colon travels across to the left side of the abdomen, where the colon angles sharply immediately inferior to the spleen, at the left colic flexure (splenic flexure). From there, food residue passes through the descending colon, which runs down the left side of the posterior abdominal wall. After entering the pelvis inferiorly, it becomes the s-shaped sigmoid colon, which extends medially to the midline. The ascending and descending colon, and the rectum (discussed next) are located in the retroperitoneum. The transverse and sigmoid colon are tethered to the posterior abdominal wall by the mesocolon.

Rectum

Food residue leaving the sigmoid colon enters the rectum in the pelvis, near the third sacral vertebra. The final 20.3 cm (8 in) of the alimentary canal, the rectum extends anterior to the sacrum and coccyx. Even though rectum is Latin for “straight,” this structure follows the curved contour of the sacrum and has three lateral bends that create a trio of internal transverse folds called the rectal valves. These valves help separate the feces from gas to prevent the simultaneous passage of feces and gas.

Anal Canal

Finally, food residue reaches the last part of the large intestine, the anal canal, which is located in the perineum, completely outside of the abdominopelvic cavity. This 3.8–5 cm (1.5–2 in) long structure opens to the exterior of the body at the anus. The anal canal includes two sphincters. The internal anal sphincter is made of smooth muscle, and its contractions are involuntary. The external anal sphincter is made of skeletal muscle, which is under voluntary control. Except when defecating, both usually remain closed. (Kahai & Lobo, 2019)

Function

- The key functions of the colon include the following:
- Water and nutrient absorption
- Vitamin absorption
- Feces compaction
- Potassium and chloride secretion
- Moving waste material toward the rectum

MECHANISM

Motility

The intestinal wall is made up of multiple layers. The 4 layers of the large intestine from the lumen outward are the mucosa, submucosa, muscular layer, and serosa. The muscular layer is made up of 2 layers of smooth muscle, the inner, circular layer, and the outer, longitudinal layer. These layers contribute to the motility of the large intestine. There are 2 types of motility present in the colon, haustral contraction and mass movement. Haustra are sacculi in the colon that give it its segmented appearance. Haustral contraction is activated by the presence of chyme and serves to move food slowly to the next haustra, along with mixing the chyme to help with water absorption. Mass movements are stronger and serve to move the chyme to the rectum quickly.

Absorption of Water and Electrolytes

Absorption of water occurs by osmosis. Water diffuses in response to an osmotic gradient established by the absorption of electrolytes. Sodium is actively absorbed in the colon by sodium channels. Potassium is either absorbed or secreted depending on the concentration in the lumen. The electrochemical gradient created by the active absorption of sodium allows for this. Chloride ions are exchanged for bicarbonate ions across an electrochemical gradient.

Production/Absorption of Vitamins

The colon also plays a role in providing required vitamins through an environment that is conducive for bacterial cultivation. The colon houses trillions of bacteria that protect our gut and produce vitamins. The bacteria in the colon produce substantial amounts of vitamins by fermentation. Vitamin K and B vitamins, including biotin, are produced by the colonic bacteria. These vitamins are then absorbed into the blood. When dietary intake of these vitamins is low in an individual, the colon plays a significant role in minimizing vitamin disparity (Goodman, 2013).

a) What are the functions of the large intestine?

.....
.....

b) What are the parts of the large intestine?

.....
.....

c) What are the three unique features to the large intestine?

.....
.....

d) Where is the ileocecal valve located and what is its function?

.....
.....

e) Where does the large intestine develop from?

.....
.....

f) What is the appendix?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 6 about Large intestine and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 6 about Large intestine. Use the phrases in the box to complete in the blanks

- | |
|---|
| <ul style="list-style-type: none">a) To absorb water in addition vitamin k is produced in the colon with the help of bacteriab) Your large intestine is roughly nine feet in lengthc) Vitamin K helps you clot bloodd) The colon, water and salt is absorbed in the colone) The food that once was kind has now been converted into fecesf) The cecum is a little like a pouch and receives food material called chyme |
|---|

Why do we need our large intestine?

In this video I'd like to talk about the large intestines after passing through the small intestine's food travels into the large intestine _____ (1)but gets its name because it has a larger diameter than the small intestines, your large intestine is also called the colon .

The large intestine is divided into several sections, the beginning section is called the cecum, food from the small intestine travels to the cecum, _____ (2)from the small intestines at the ileum, from the cecum food travels upward into _____ (3) the next section is a curved section called a sigmoid, _____ (4) and it is stored in the sigmoid until it travels to the rectum and then exits the body one of the main jobs that the large intestine is, _____ (5)

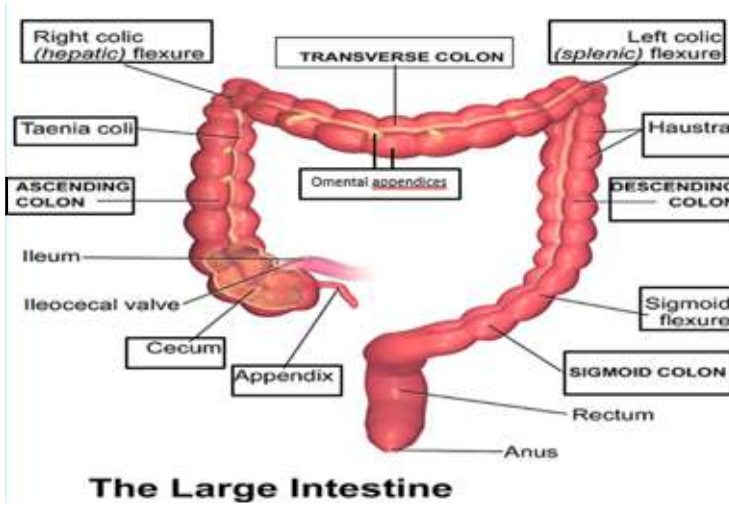
_____ (6) it helps to build bones and it aids in keeping your insulin levels correct so they are the large intestines another stop along the digestive tract. Thanks for watching and moomoomath uploads a new map and signs video every day please subscribe and share. (MooMoo Math and Science, 2017).

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

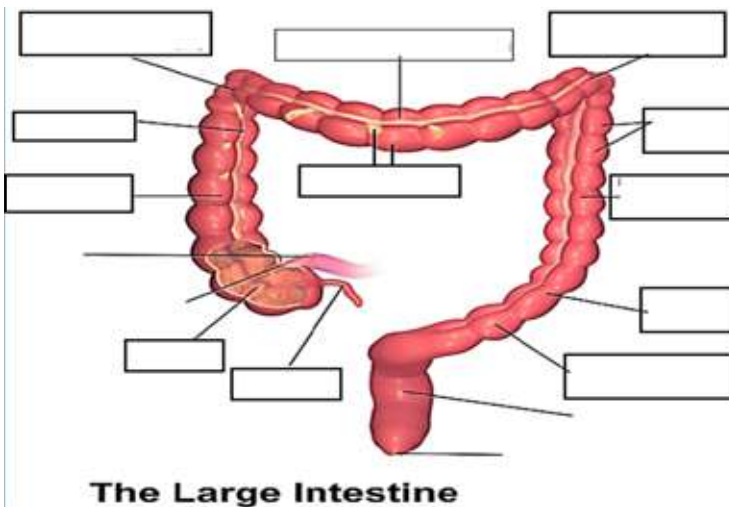
Lactose small intestine stomach duodenum jejunum
--

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

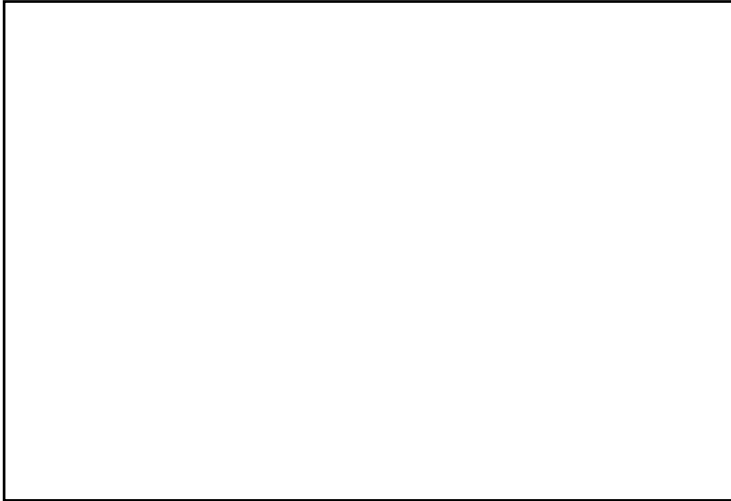
TASK 9. Look at the parts of the large intestine. Listen and repeat after your teacher.



TASK 10. Label the picture with the parts in Task 9.



TASK 11. Draw the large intestine with its parts.



HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 7: STOMACH

Before starting. Answer the following question: what do you know about the stomach?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a. Bacteria

b. Intrinsic

c. Cells

d. Parietal

e. Precursor

f. Glands

g. Chyme

h. Secretes

i. Rugae

j. Mucosa

k. Mixes

l. Pulverize

m. Intestine

n. Smooth

o. Contractile

p. Stomach

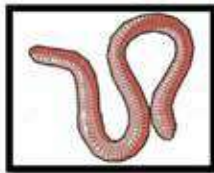
q. Lesser

r. Esophagus

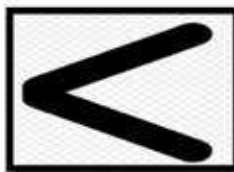


s. Walls

t. Sphincters



*Ask your teacher for the meaning of the words you don't understand



TASK 2. Find the following words in the grid.

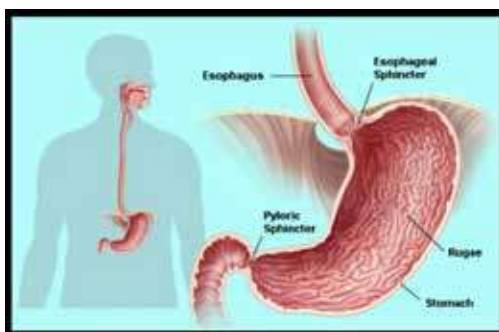
- a) Stomach b) Smooth c) Intestine d) Interstic
 e) Glands f) Bacteria g) Cells h) Precursor
 i) Sercretes j) Pilvefrize k) Walls l) Mixes
 m) Mucosa n) Chyme o) Lesser p) Rugae
 q) Parietal r) Esophagus s) Contractile t) Sphincteres

A	S	D	F	G	Q	Y	I	O	J	K	L	P	Ñ	O	P	Q	S	A	F	V	N	M
S	T	O	M	A	C	H	A	Y	O	I	A	U	O	I	Y	L	U	I	P	N	Y	G
R	U	U	A	E	T	T	U	V	P	W	A	L	L	S	R	P	Y	E	A	I	R	F
T	I	A	U	T	E	O	I	V	A	R	U	V	U	A	E	C	T	E	C	O	E	R
U	I	O	A	U	M	O	O	I	C	T	I	E	M	U	A	E	E	H	S	P	A	T
I	A	U	E	N	O	M	U	I	I	U	I	R	I	I	I	R	A	Y	X	A	I	Q
O	Q	I	N	T	E	S	T	I	N	E	O	I	X	O	U	O	I	T	O	C	U	E
Y	E	T	I	R	F	Y	U	I	T	Y	I	Z	E	Y	Y	I	U	U	A	S	Y	A
R	A	Y	O	E	R	S	E	C	R	E	T	E	S	R	T	C	I	A	U	X	T	U
E	U	V	P	A	T	Q	C	X	I	L	P	C	T	E	R	H	I	O	A	L	R	I
A	I	V	A	I	Q	E	Q	U	S	O	R	E	E	A	E	Y	A	U	E	E	E	O
I	O	I	C	U	E	A	W	G	T	U	E	R	A	I	P	M	U	C	O	S	A	P
U	P	F	Q	Y	E	U	Y	L	I	I	C	O	I	P	R	E	C	U	R	S	O	R
Y	R	R	C	T	E	I	B	A	C	T	E	R	I	A	T	E	T	I	T	E	T	E
T	E	T	R	E	H	O	A	N	P	A	L	A	I	R	C	O	O	U	I	R	Y	R
R	R	Q	U	A	Y	P	U	D	R	T	L	C	U	I	E	T	I	O	U	E	P	T
E	T	E	T	I	T	T	I	S	Y	E	S	Q	Y	E	E	L	U	I	P	S	O	U
S	C	O	O	U	I	E	O	S	T	S	A	C	T	T	I	P	Y	E	A	X	I	O
X	E	T	I	O	U	R	P	U	C	O	N	T	R	A	C	T	I	L	E	W	U	I
W	E	L	U	I	P	A	T	O	Y	P	Q	C	B	L	O	A	I	R	F	Q	Y	E
Q	I	P	Y	E	A	I	Q	I	T	H	I	V	A	I	Q	C	O	E	R	C	T	E
C	M	C	T	E	C	U	E	T	E	A	O	I	C	U	E	S	P	A	T	R	E	H
R	M	E	E	H	S	Y	A	E	A	G	P	F	Q	Y	E	X	A	I	Q	U	A	Y
U	I	R	A	Y	X	T	U	E	I	U	R	R	C	T	E	O	C	U	E	T	I	T
T	E	O	I	T	O	O	I	A	O	S	P	H	I	N	C	T	E	R	E	S	O	J

TASK 3. Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about Stomach, then answer the questions below.



The stomach is a pouchlike organ, about 25—30 centimeters long, which hangs inferior to the diaphragm in the upper left portion of the abdominal cavity. It has a capacity of about one liter or more, and its inner lining is marked by thick folds (rugae) of the mucosal and submucosal layers that disappear when its wall is distended. The stomach receives food from the esophagus, mixes it with gastric juice, initiates the digestion of proteins, carries on limited absorption and moves food into the small intestine (Hunt, Camileri, & Crowe, 2015).

In addition to the two layers of smooth muscle an inner circular layer and an outer longitudinal layer found in other regions of the alimentary canal, some parts of the stomach have another inner layer of oblique fibers, which strengthen the stomach wall and help with mixing and churning. This third innermost muscular layer is most highly developed near the opening of the esophagus and in the body of the stomach.

The stomach can be divided into the cardiac, fundic, body, and pyloric regions. The cardiac region is a small area near the esophageal opening (cardia).

The fundic region, which balloons superior to the cardiac portion, is a temporary storage area and sometimes fills with swallowed air. This produces a gastric air bubble, which may be used as a landmark on a radiograph of the abdomen. The dilated body region, which is the main part of the stomach, is located between the fundic and pyloric portions. The pyloric region (antrum) is a funnel-shaped portion that narrows and becomes the pyloric canal as it approaches the small intestine. At the end of the pyloric canal, the circular layer of fibers in its muscular wall thickens, forming a powerful muscle, the pyloric sphincter. This muscle is a valve that controls gastric emptying.

Small openings. These openings, called gastric pits, are located at the ends of tubular gastric glands (oxyntic glands). Although their structure and the composition of their secretions vary in different parts of the stomach, gastric glands generally contain three types of secretory cells. One type, the mucous cell (goblet cell), is found in the necks of the glands near the openings of the gastric pits. The other types, chief cells (peptic cells) and parietal cells (oxyntic cells), reside in the deeper parts of the glands. The chief cells secrete digestive enzymes, and the parietal cells release a solution containing hydrochloric acid. The products of the mucous cells, chief cells, and parietal cells together form gastric juice.

Of the several digestive enzymes in gastric juice, pepsin is by far the most important. The chief cells secrete it as an inactive, nonerosive enzyme precursor called pepsinogen. When pepsinogen contacts the hydrochloric acid from the parietal cells, however, it breaks down rapidly, forming pepsin. Pepsin, in turn, can also break down pepsinogen to release more pepsin. Pepsin begins the digestion of nearly all types of dietary protein. This enzyme is most active in an acidic environment, which is provided by the hydrochloric acid in gastric juice. Gastric juice contains small quantities of a fat splitting enzyme, gastric lipase. However, its action is weak due in part to the low pH of gastric juice. Gastric lipase acts mainly on butterfat.

The mucous cells of the gastric glands secrete copious thin mucus. In addition, the cells of the mucous membrane, associated with the inner lining of the stomach and between the gastric glands, release a more viscous and alkaline secretion, which coats the inside of the stomach wall. This coating is especially important because pepsin can digest the proteins of stomach tissues, as well as those in foods. The coating normally prevents the stomach from digesting itself (Shier, 2015)

The upper gastrointestinal (GI) tract is composed of the oral cavity and salivary glands, the esophagus, stomach, and small intestine (duodenum, jejunum, and ileum). In all three species, the basic mural structure of the tract is maintained. The tract is essentially a smooth muscle-enveloped tube with an innermost mucosa (barrier epithelium, lamina propria, and muscularis mucosae), submucosa, tunica muscularis, and variable serosa or adventitia. The functions of the upper GI tract include transport of the swallowed food bolus, enzymatic digestion, and absorption of nutrients, in addition to protective barrier function against the external environment. (Arends, 2018)

The gross and microscopic anatomy of the stomach and duodenum are intrinsically linked to their functions in mediating and regulating digestion and nutrition. The stomach and duodenum are innervated by sympathetic and parasympathetic neurons of the autonomic nervous system. The vagus nerve, originating in the dorsal motor nucleus in the medulla, provides parasympathetic innervation to the stomach and duodenum. The stomach and duodenum have four tissue layers: mucosa, submucosa, muscularis propria, and serosa. The juxtaposition of secretory cells and neurons in the stomach and duodenum is crucial to their physiological interactions that regulate digestion (Goldberg, 2015)

Gastric acid facilitates the digestion of protein as well as the absorption of iron, calcium, vitamin B12, and certain medications. High acidity kills ingested microorganisms and limits bacterial overgrowth, enteric infection, and possibly spontaneous bacterial peritonitis. The main stimulants of acid secretion are gastrin, released from antral gastrin cells; histamine, released from oxyntic enterochromaffin-like cells; and acetylcholine, released from antral and oxyntic intramural neurons. Ghrelin and coffee also stimulate acid secretion whereas somatostatin, cholecystokinin, glucagon-like peptide-1, and atrial natriuretic peptide inhibit acid secretion. Although 95% of parietal cells are contained within the oxyntic mucosa (fundus and body), 50% of human antral glands contain parietal cells (Mitchell, 2015)

a) What are the functions of the stomach?

.....
.....

b) Where are the gastric pits located?

.....
.....

c) What is the capacity of stomach?

.....
.....

d) Where is the stomach located?

.....
.....

e) How many sections does the stomach have?

.....
.....

f) What is the most important digestive enzymes in the gastric juice?

.....
.....

g) How many tissue layers do the stomach and duodenum have?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 7 about stomach and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 7 about stomach. Use the phrases in the box to complete in the blanks

- a. this is a muscle that acts like a valve
- b. start the productions of secretions in the stomach
- c. three contractions per minute move the food mass back and forth
- d. the more food goes into the stomach, the more it actively expands

What exactly happens in our stomachs when we eat? Even before we have taken the first bite of a meal, the brain sends impulses to the stomach. These impulses _____ (1) and the upper part of the stomach, which acts as a reservoir, expands. The food passes into the stomach through the cardia at the stomach entrance. _____ (2), closing the top of the stomach. The top part of the stomach, the fundus, is where food and the air that we swallow with every bite is collected. This is where the stomach volume starts to adapt. The fundus is an extremely adaptable structure. _____ (3). In the middle part of the stomach, called the body, gastric juice is produced and mixed with the mass of chewed food. The main component of gastric juice is gastric acid. This eliminates bacteria in the food and also helps to prepare the food for the following stages of digestion. The muscular contractions of the stomach Wall churn the food mass and mix it with gastric juice. _____ (4). After a certain time, the contents of the stomach are adequately broken down and mixed and are passed in small quantities into the intestine via the pylorus. As the stomach empties, it gradually returns to its previous size (Bayer Global, 2017).

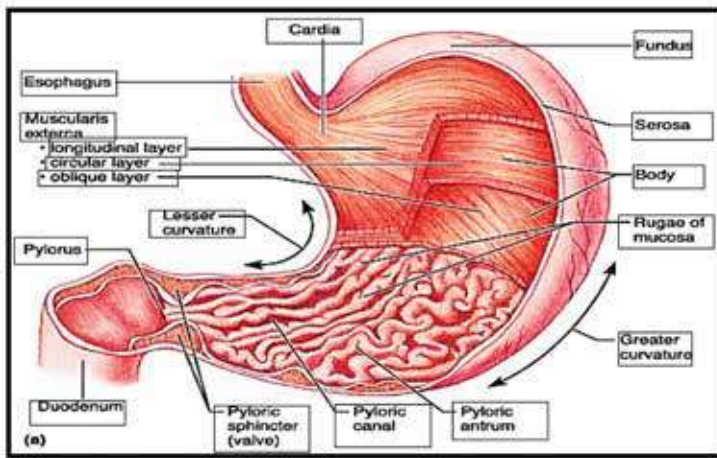
TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

Valve stomach muscular contractions brain pylorus

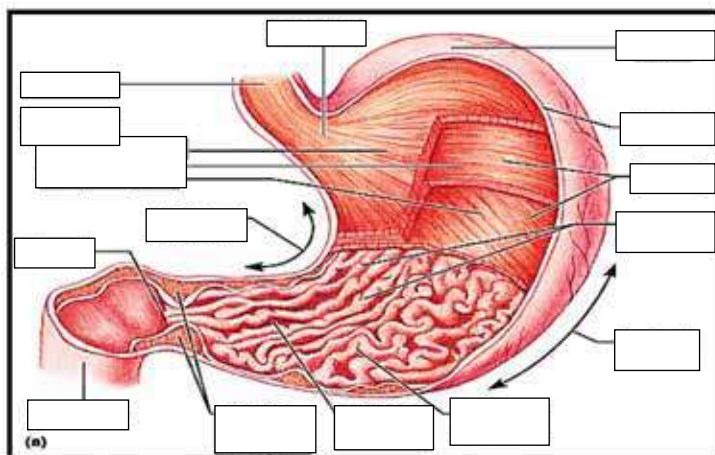
- a. _____
- b. _____

- c. _____
- d. _____
- e. _____

TASK 9. Look at the parts of the large stomach. Listen and repeat after your teacher.



TASK 10. Label the picture with the parts in Task 9.



TASK 11. Draw the stomach with its parts.



HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 8: MASCULINE REPRODUCTIVE SYSTEM

Before starting. Answer the following question: what do you know about the masculine reproductive system?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a. Sack

b. Aid

c. Both

d. Behind

e. Maturation

f. Delivers

g. Fold

h. Skin

i. Foreskin

j. Surface

k. Sinuses

l. Aroused

m. Able

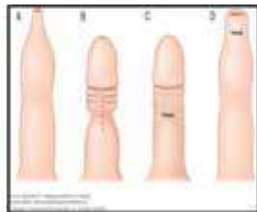
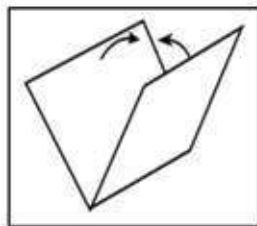
n. Pregnancy

o. Joins

p. Shortly

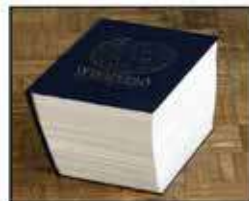
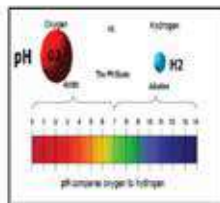
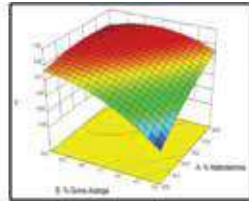
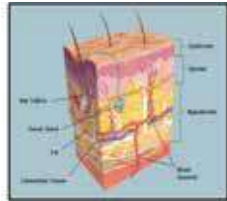
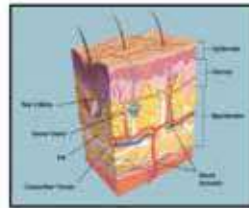
q. Alkalinity

r. Salty

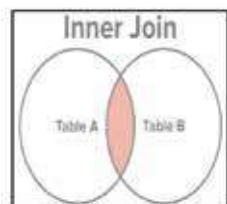


s. Thick

t. Walnut



*Ask your teacher for the meaning of the words you don't understand



TASK 2. Find the following words in the grid

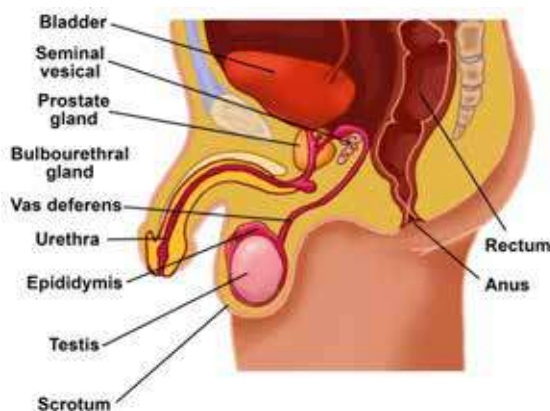
- | | | | |
|---------------|-------------|---------------|--------------|
| a. aid | b. skin | c. surface | d. salty |
| e. both | f. foreskin | g. alkalinity | h. aroused |
| i. maturation | j. sinuses | k. joins | l. shortly |
| m. delivers | n. sack | o. walnut | p. pregnancy |
| q. fold | r. behind | s. thick | t. able |

A	I	D	A	Q	A	L	K	A	L	I	N	I	T	Y	E	R
D	F	A	R	O	U	S	E	D	G	H	J	M	K	L	Z	T
F	A	G	G	Q	W	A	L	N	U	T	U	A	G	H	S	Y
O	S	F	H	W	Y	D	D	S	Y	H	A	T	H	H	A	U
R	D	S	D	E	L	I	V	E	R	S	E	U	O	J	C	I
E	F	E	J	E	H	F	C	F	G	A	I	R	E	M	K	O
S	I	N	U	S	E	S	F	V	V	E	T	A	A	J	B	P
K	G	T	O	U	F	B	O	T	H	L	O	T	O	O	V	A
I	H	Y	P	R	D	T	L	D	Y	I	U	I	I	I	C	S
N	J	S	G	F	S	U	D	I	S	O	A	O	E	N	X	A
H	K	A	F	A	W	H	J	O	S	K	I	N	A	S	Z	B
G	L	L	D	C	T	T	H	I	C	K	E	I	U	I	X	L
F	M	T	E	E	H	H	K	P	Q	D	N	I	H	E	B	E
D	N	Y	T	P	R	E	G	N	A	N	C	Y	O	O	C	D

TASK 3.- Rewrite the 20 words found in task 2

- | | | | |
|----------|----------|----------|----------|
| a. _____ | b. _____ | c. _____ | d. _____ |
| e. _____ | f. _____ | g. _____ | h. _____ |
| i. _____ | j. _____ | k. _____ | l. _____ |
| m. _____ | n. _____ | o. _____ | p. _____ |
| q. _____ | r. _____ | s. _____ | t. _____ |

TASK 4. Read about Male Reproductive System, then answer the questions below



The complex individual organs that comprise the male reproductive system have a single evolutionary goal: to deliver spermatozoa to the female reproductive tract. Haploid germ cells originate in the testis and travel through the epididymis and into the vas deferens, eventually reaching the ampulla, where the mixing of seminal vesicle secretions occurs (Kandeel, 2013).

The paired testes are a crucial component in this process, as they produce both sperm and androgens, the hormones that support male reproductive physiology. In humans, the most important male androgen is testosterone. Several accessory organs and ducts aid the process of sperm maturation and transport the sperm and other seminal components to the penis, which delivers sperm to the female reproductive tract (BC Campus, 2019).

Sperm are produced in the testes and are transported through the reproductive ducts. These ducts include the epididymis, ductus deferens, ejaculatory duct and urethra. The reproductive glands produce secretions that become part of semen, the fluid that is ejaculated from the urethra. These glands include the seminal vesicles, prostate gland, and bulbourethral glands (Encyclopaedia Britannica, 2019)

MALE EXTERNAL GENITAL ORGANS

Penis

The penis is an external genital organ. The distal end of the penis is called the glans penis and is covered with a fold of skin called the prepuce or foreskin. Within the penis are masses of erectile tissue. Each consists of a framework of smooth muscle and connective tissue that contains blood sinuses, which are large, irregular vascular channels. The axis of the penis surrounds the urethra, is composed of the three chambers, the two largest lateral chambers is called the cavernous body, is the largest part of the penis and the spongy body, which can feel like a crest. (Encyclopaedia Britannica, 2019)

Scrotum

The testes are located in a skin-covered, highly pigmented, muscular sack called the scrotum that extends from the body behind the penis. This location is important in sperm production, which occurs within the testes, and proceeds more efficiently when the testes are kept 2 to 4°C below core body temperature (BC Campus, 2019)

MALE INTERNAL GENITAL ORGANS

Epididymis

The seminiferous tubules join together to become the epididymis. The epididymis is a tube that is about 20 feet long that is coiled on the posterior surface of each testis. Within the epididymis the sperm complete their maturation and their flagella become functional. This is also a site to store sperm until the next ejaculation. Consists of three parts: the expanded head, the body, and the tail.

Seminal Vesicles

The pair of seminal vesicles are posterior to the urinary bladder. They secrete fructose to provide an energy source for sperm and alkalinity to enhance sperm mobility. The duct of each seminal vesicle joins the ductus deferens on that side to form the ejaculatory duct (Encyclopaedia Britannica, 2019)

Prostate Gland

Sits anterior to the rectum at the base of the bladder surrounding the prostatic urethra (the portion of the urethra that runs within the prostate). About the size of a walnut, the prostate is formed of both muscular and glandular tissues. It excretes an alkaline, milky fluid to the passing seminal fluid, now called semen, that is critical to first coagulate and then decoagulate the semen following ejaculation.

Bulbourethral Glands

The final addition to semen is made by two bulbourethral glands (or Cowper's glands) that release a thick, salty fluid that lubricates the end of the urethra and the vagina, and helps to clean urine residues from the penile urethra. The fluid from these accessory glands is released after the male becomes sexually aroused, and shortly before the release of the semen. It is therefore sometimes called pre-ejaculate. It is important to note that, in addition to the lubricating proteins, it is possible for bulbourethral fluid to pick up sperm already present in the urethra, and therefore it may be able to cause pregnancy (Encyclopaedia Britannica, 2019)

a) What is the function of the male reproductive system?

.....
.....

b) What are the male external genital organs?

.....
.....

c) What are the male internal genital organs?

.....
.....

d) What is the function of the prostatic gland?

.....
.....

e) What is the temperature for the development of the testicles?

.....
.....

f) Why is the shaft of the penis formed?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6 .- Close your book. Listen to audio 8 about Male Reproductive System and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 8 about Male Reproductive System. Use the phrases in the box to complete in the blanks

- | |
|--|
| <ul style="list-style-type: none">a. vas deferens several ducts from different glands like the prostateb. is the organ responsible for ejaculating sperm for reproductionc. cavity the testes are the site for production of male gametesd. respective secretions in the vas deferens these secretions mixe. form new generation of organisms human beings do sof. between the legs outside the body it is the scrotumg. urethra where the vas deferens releases the sperms the urethra then carries |
|--|

In this module you will learn about male reproductive system. All living beings reproduce to _____ (1) by the process of sexual reproduction. Sexual reproduction as you already know involves the fusion of male and female gametes and thus involves both male and female partners. Let us learn about the main reproductive organs here. The male reproductive organs consists of testes, scrotum, vas deferens, urethra and penis let us learn about these organs one by one the first organ is the testes a human male possesses two testes. The testes lie outside the abdominal _____ (2) which are the sperms. In addition to the formation of sperms the testes are also responsible for the release of testosterone that is the male sex hormone. The next organ of the male reproductive system is the scrotum. The scrotum is a pouch of skin that hangs _____ (3) in which the testes are located the scrotum has lower temperature than rest of the body hence it provides optimal temperature for the development of sperm. The next organ is the vas deferens it is a long tube present close to the testes once the sperms are formed in the testes, they are carried to the urethra by the vas deferens. In the _____ (4) and the seminal vesicle open up. These ducts release their _____ (5) with the sperms and help in easy transport of the sperms outside the body. The next organ is the urethra like vas deferens it is also a long tube that arises from the urinary bladder. It is the _____ (6) the sperms and releases it outside the male body through the penis. Penis is the last organ of the male reproductive system it is a thickened muscular organ like scrotum it is also located outside the male body. The penis _____ (7) not only sperms even the urine is released from this pathway. Hence urethra and penis together form a common passage for the release of both and the sperms.

Let's recap:

- The male reproductive system consists of testes, scrotum, vas deferens, urethra and penis.
- The testes are the site for the production of sperms and testosterone.
- The scrotum is the site for location of the testes outside the body.
- Vas deferens helps in transport of the sperms to the urethra.

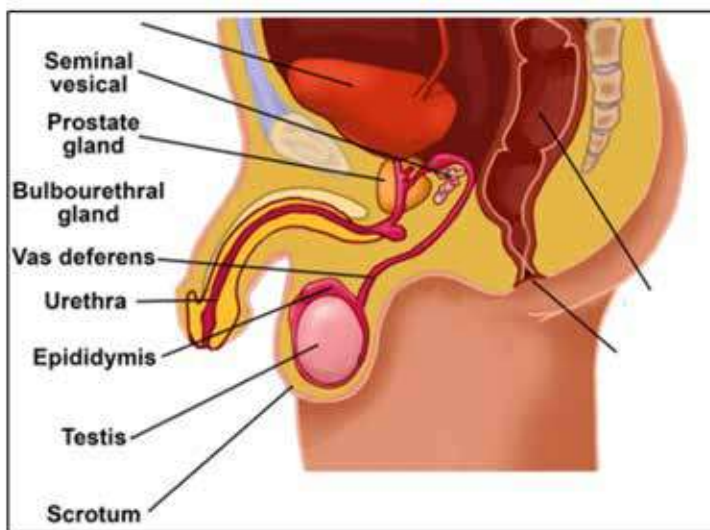
- The urethra is a long tube that carries and releases the sperms outside the male body through penis.
- Located outside the male body, the penis is a thick and muscular organ that ejaculates sperms. (MBD Alchemie, 2018)

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

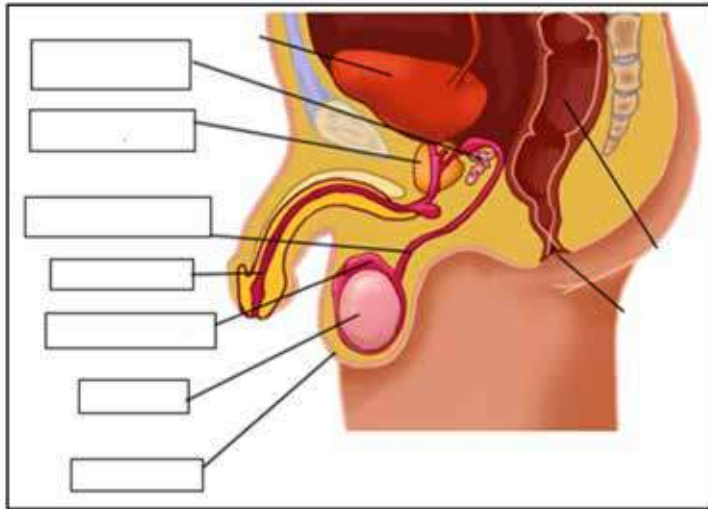
Valve stomach muscular contractions brain pylorus

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

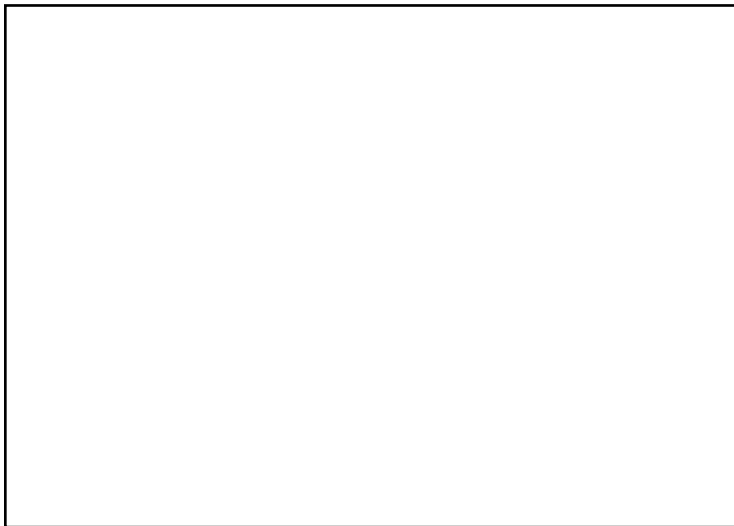
TASK 9. Look at the parts of the Male Reproductive System. Listen and repeat after your teacher



TASK 10. Label the picture with the parts in Task 9.



TASK 11. Draw the masculine reproductive system with its parts



HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 9: FEMALE REPRODUCTIVE SYSTEM

Before starting. Answer the following question: what do you know about female reproductive system?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a.- soft

b.- flashcard

c.- brief

d.- overview

e.- releases

f.- ovarian

g.- follicles

h.- blood

i.-vulva

j.- fatty

k.- surround

l.- urethral

m.- clitoris

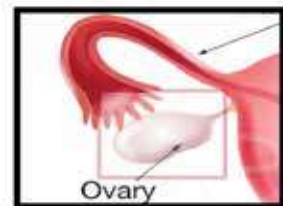
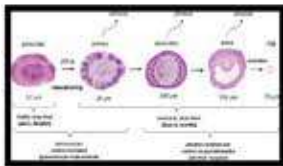
n.- vagina

o.- fallopian tube

p.- uterus

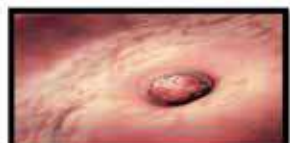
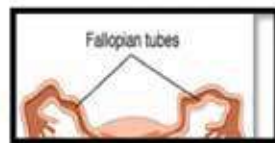
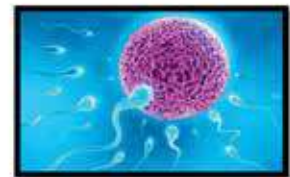
q.- sperms

r.-fertilization



s.-implantation

t.-ovum



*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid.

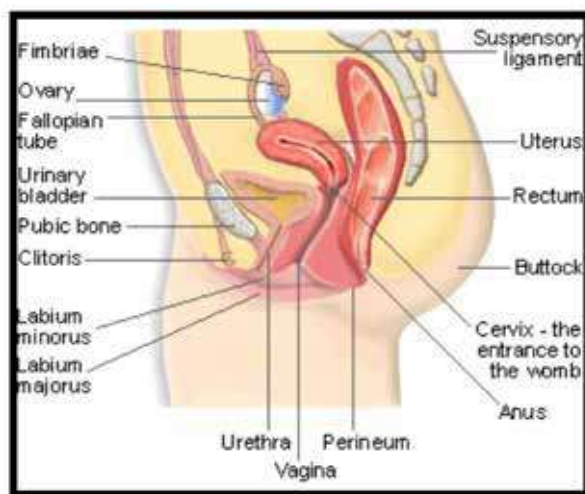
- | | | | |
|--------------|-------------------|-------------|------------------|
| a. soft | b. ovarian | c. surround | d. uterus |
| e. flashcard | f. follicles | g. urethral | h. clitoris |
| i. brief | j. blood | k. ovum | l. sperms |
| m. overview | n. vulva | o. vagina | p. fertilization |
| q. releases | r. fallopian tube | s. fatty | t. implantation |

U	R	E	T	H	R	A	L	S	J	F	A	O	S	S
A	H	E	I	D	S	P	M	W	U	O	X	V	S	U
B	V	A	G	I	N	A	U	T	T	L	V	E	V	R
L	M	W	F	W	U	I	X	N	E	L	A	R	T	R
O	Y	D	A	B	S	U	I	S	R	I	M	V	G	O
O	L	E	T	O	S	O	F	T	U	C	E	I	F	U
D	A	X	T	S	I	U	B	E	S	L	T	E	L	N
G	G	R	Y	A	O	J	L	A	B	E	Y	W	U	D
F	L	A	S	H	C	A	R	D	K	S	A	A	-	E
I	E	F	E	R	T	I	L	I	Z	A	T	I	O	N
F	A	L	L	O	P	I	A	N	T	U	B	E	C	P
B	R	B	Ñ	K	O	T	G	E	S	E	O	O	L	A
I	M	P	L	A	N	T	A	T	I	O	N	V	I	G
D	Q	Q	A	E	H	S	I	I	P	O	B	A	T	V
R	E	L	E	A	S	E	S	S	N	C	L	R	O	U
F	T	T	Z	R	Z	D	E	E	P	V	T	I	R	L
O	V	U	M	E	S	P	E	R	M	S	S	A	I	V
F	I	D	H	M	B	R	I	E	F	O	B	N	S	A

TASK 3.- Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about Female Reproductive System, then answer the questions below



The female reproductive system is designed to carry out several functions. It produces the female egg cells necessary for reproduction, called the ova or oocytes. The system is designed to transport the ova to the site of fertilization. Conception, the fertilization of an egg by a sperm, normally occurs in the fallopian tubes. The next step for the fertilized egg is to implant into the walls of the uterus, beginning the initial stages of pregnancy. If fertilization and/or implantation does not take place, the system is designed to menstruate (the monthly shedding of the uterine lining). In addition, the female reproductive system produces female sex hormones that maintain the reproductive cycle. The female reproductive sys-

tem includes the ovaries, fallopian tubes, uterus, vagina, vulva, mammary glands and breasts. These organs are involved in the production and transportation of gametes and the production of sex hormones. The female reproductive system also facilitates the fertilization of ova by sperm and supports the development of offspring during pregnancy and infancy (WebMD, 2019)

The anatomy and histology of the female genital system in ticks have been studied only in some species by different authors. The knowledge of these subjects is very important as a basic tool in all species in relation to morphological sciences and evolution, physiological events like ovulation, sexual behavior, maturation and mating, and also to research the interrelation tick-hemoparasite. The midgut, salivary glands and ovary in ticks, are organs of the great interest for their role in tick physiology and/or pathogen transmission. The structure of female genital system in Ixodidae consists of a single U-shaped tubular ovary in the posterior region of the body, paired and folded oviducts are in both extremes of the ovary joint into a common oviduct or uterus. The uterus opens into the vagina, which is divided in a cervical vagina and a vestibular vagina. A seminal receptacle, absent in argasids as well as the uterus, open also in the cervical vagina. A pair of tubular accessory glands pours out their secretions at the level of the union of both cervical and vestibular vagina. Surrounding the vestibular vagina there is a glandular epithelium, the lobular accessory gland, found only in ixodid ticks. The anatomy and histology of the female genital system in *Boophilus microplus* are scarcely studied; only it is possible to refer to articles about oviducts and fertilization and studies of the ovary by Saito et al. In the present paper, the general objective is to consider the female genital system of this tick as a whole and to analyze the morphological and functional interrelations between different structures. Also, the mating process in the species is approached and the semen transport inside the female's tract is shown. The quality and resolution of images are remarkable because of the improvement by authors of a histological technique specially for arthropods and for the employ of an original procedure for feminine tract dissection that makes it easier and saves time avoiding technical complications (Vega, Díaz, & Fernández, 2012)

1. What is the female reproductive system?

.....
.....

2. What organs are in the female reproductive system?

.....
.....

3. What opens into the vagina?

.....
.....

4. What's is the general objective of the paper above?

.....
.....

5. How is vagina divided?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 9 about Female Reproductive System and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 9 about Female Reproductive System. Use the phrases in the box to complete in the blanks

- a. Which is a soft mound of fatty tissue
- b. Highly sensitive as it contains many nerve endings
- c. The external sex organs and the internal sex organs.
- d. Protect the other external reproductive organs
- e. Is a fibromuscular canal which is 10 centimeters long
- f. The sperms for fertilization
- g. A womb or the childbearing organ the fertilized egg implants
- h. Contains numerous mucous glands which help in production of mucus for lubrication.
- i. Finger ship projections known
- j. It has a very important role in childbirth as it undergoes
- k. Dense connective tissue it also contains all the blood vessels nerves and the lymphatics
- l. Estrogen and progesterone

The female reproductive system can be divided into two parts _____
_____ (1)

First let's talk about the external sex organs also known as vulva in case of females the external sex organs consist of the Mons pubis _____ (2) in front of the pubic bone.

The word Mons means Mound and the pubis refers to pubic bone the word labia is derived from Latin word which means lip labia majora are the outer folder the skin that _____ (3) They also contain sweat and the oil glands. labia minora lie inside the labia majora and surround the vaginal as well as the urethral openings the two labia minora meet at the front and form the clitoris which is a _____ (4) Clitoris is homologous to glans penis in case of males the central part is the vulva vestibule which contains the vaginal as well as you little openings let's study the internal sex organs of the female reproductive system.

The internal sex organs consist of the vagina and the cervical canal to fallopian tubes the central uterus and a pair of ovaries. Let's first talk about the vagina and the cervical canal, the vagina _____ (5),

it is lined by non-keratinized stratified squamous epithelium, the vagina provides a path for menstrual blood and fetus to leave the body the vaginal mucosa glands provide lubrication it also receives the male sex organs and the sperms .The cervix is the lower cylindrical part of the uterus it is lined by column inner cells it also _____ (6)

The cervix prepares _____ (7) and also delays several folds during the childbirth.

Let's talk about the fallopian tubes each fallopian tube is a 10 centimeter long hollow organ which is made up of four parts the infundibulum is the lateral end of the fallopian tube to which numerous _____ (8) as a film reel are attached the fimbria pick up the oocyte once it is released from the ovary the ampulla is a central dilated part of the fallopian tube and it is the most common site for the fertilization. The medial end of the fallopian tube is the isthmus which connects the tube to the uterus, now let's study about the uterus. The uterus is also known as _____ (9) in the uterus and through a series of changes grows into a fetus the uterus is 7.5 centimeters long five centimeters broad and 2.5 centimeters thick it is made up of the following parts the fundus body the cavity of the uterus which is lined by mucous membrane and coronal or the corners of the uterus to which fallopian tubes are attached let's have a brief look.

About the walls of the uterus, the wall of the uterus is made up of three layers: perimetrium, myometrium, and endometrium. Perimetrium is a thin layer of epithelial cells that covers the uterus from outside it is the visceral peritoneum of the uterus, the myometrium is a central thickest layer made up of smooth muscle cells _____ (10) a series of contractions and relaxations which propels the fetus outside. It is main site for development of fibroids and adenomyosis, endometrium is the innermost and most active layer of the uterus, it undergoes a series of changes throughout the month under the influence of hormones _____ (11) it is a site for development of endometrial hyperplasia and cancer the ovary is the main reproductive organ which is 4 into 3 into 2 centimeters in dimension the ovary has two main functions, first it produces the female eggs also known as oocytes, second it also produces a female reproductive hormones the estrogen and progesterone, looking at the cross-section of the ovary it is made up of the central medulla and the outer part known as the cortex, the medulla consists of the _____

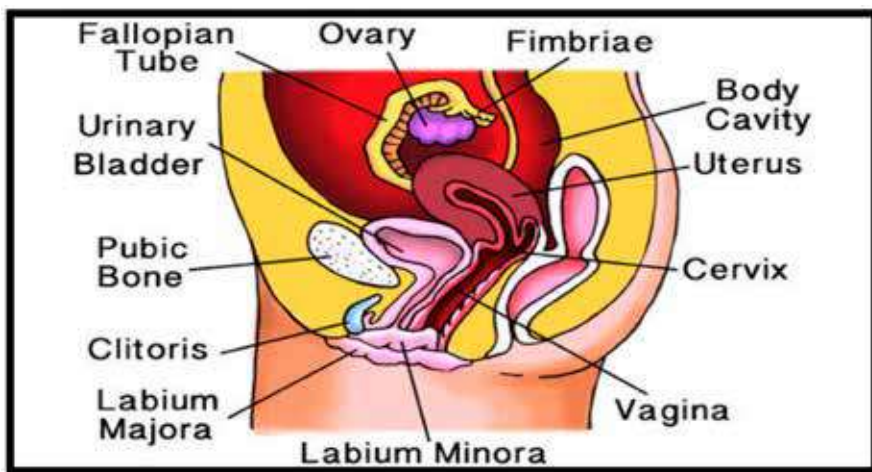
_____ (12) The cortex consists of numerous ovarian follicles in various stages of development these ovarian follicles secrete estrogen when ovarian follicle matures and releases a female egg it becomes the corpus luteum which secretes the progesterone so this was a brief overview about the female reproductive system.

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

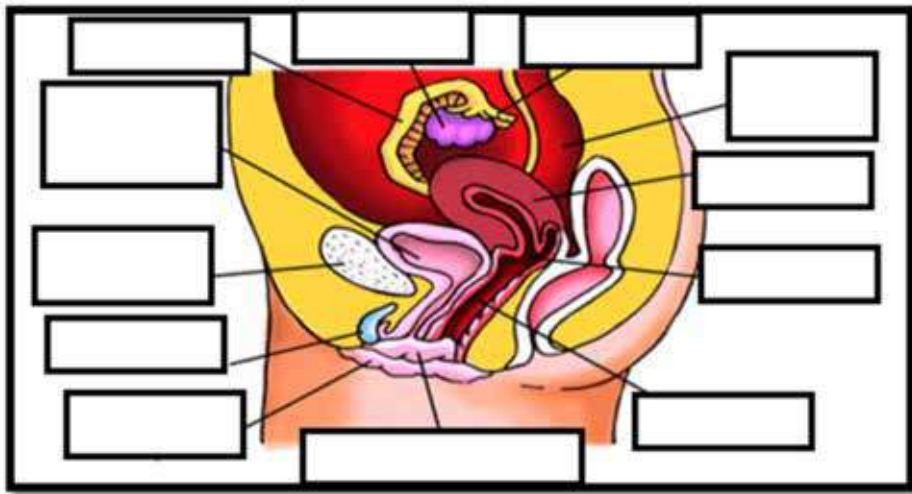
fatty tissue	nerve	sex	fertilization	connective tissue
--------------	-------	-----	---------------	-------------------

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

TASK 9. Look at the parts of the Female Reproductive System. Listen and repeat after you teacher.



TASK 10. Label the picture with the parts in Task 9.



TASK 11. Draw the Female Reproductive System with its parts



HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 10: AN EMERGENCY

Before starting. Answer the following question: what do you know about an emergency?

TASK 1. Match the words below with the pictures. Listen and repeat.

a. seizures

b. deviate

c. awareness

d. wires

e. spill

f. painful

g. witnesses

h. clues

i. labeling

j. approach

k. risk

l. bystander

m. device

n. high-flow

o. threatened

p. mask

q. assess

r. postictal



s. spasms

t. suction



*Ask your teacher for the meaning of the words you don't understand



TASK 2. Find the following words in the grid.

- a) Seizure b) Deviate c) Awareness d) Wires
- e) Spill f) Painful g) Witnesses h) Clues
- i) Labeling j) Approach k) Risk l) Bystander
- m) Device n) Mask o) Threatened p) High – flow
- q) Assess r) Postictal s) Spasms t) Suction

A	I	E	J	H	I	G	H	F	L	O	W	H	J	D	A	A	G	H	A
P	A	T	D	U	R	O	F	G	S	D	W	J	L	K	L	S	L	J	W
P	P	A	F	T	T	P	G	M	E	F	S	I	N	A	L	S	A	E	A
R	K	I	G	P	A	I	N	F	U	L	A	S	R	D	I	E	B	I	R
O	U	V	B	Y	Y	A	H	N	L	H	G	M	M	E	P	S	E	Q	E
A	S	E	I	Z	U	R	E	S	C	J	I	S	H	V	S	S	L	H	N
C	O	D	K	Q	P	O	S	T	I	C	T	A	L	I	S	O	I	Y	E
H	E	I	M	W	U	S	J	B	C	B	G	P	E	C	F	G	N	U	S
W	J	J	K	W	I	T	N	E	S	S	E	S	D	E	H	K	G	O	S
R	N	S	J	E	I	D	K	V	S	V	T	R	R	W	V	T	S	D	S
Y	I	J	T	T	H	R	E	A	T	E	N	E	D	C	D	A	V	A	F
R	E	Ñ	B	Y	S	T	A	N	D	E	R	S	U	C	T	I	O	N	M

TASK 3.- Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about An Emergency, then answer the questions below



TASK 3.- Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about An Emergency, then answer the questions below

Emergency Medical Services, more commonly known as EMS, is a system that provides emergency medical care. Once it is activated by an incident that causes serious illness or injury, the focus of EMS is emergency medical care of the patient(s).

EMS is most easily recognized when emergency vehicles or helicopters are seen responding to emergency incidents. But EMS is much more than a ride to the hospital. It is a system of coordinated response and emergency medical care, involving multiple people and agencies. A comprehensive EMS system is ready every day for every kind of emergency. (NHTSA, 2015)

Emergency medicine, the practitioner is called upon to manage the full spectrum of brain injury ranging from mild concussion to catastrophic brain injury. In the United States, there are more than two million traumatic brain injuries each year.

The majority of these brain injuries are mild concussions, defined as a brief, traumatically induced alteration in mental status that may or may not involve loss of consciousness. Associated with central nervous system trauma is the possibility of posttraumatic epilepsy, affecting 1.5% to 15% of patients with mild to moderate brain injury. Early (defined as occurring within one week of injury) and late (defined as occurring after the first week postinjury) posttraumatic seizures have been studied and written about extensively in the medical literature.

Concussive convulsions have an immediate onset (within a few seconds), a relatively brief duration (<2–3 minutes), and a brief, if any, postictal period. As with any concussion, both retrograde and anterograde amnesia may be present. (Perron, Braddy, & Huff, 2001)

Epilepsy is the third most frequent neurological disease. The diagnosis of epilepsy is clinical and it is based on the descriptions made by the patients and relatives. Other strategies, like EEG and neuroimaging, are used to assess a possible etiology, prognosis and can influence the decision between medical or surgical treatment. The International League against Epilepsy has recently proposed a modified classification that takes into account factors like the physiopathology of seizures, neural substrate and response to treatment, among others. Objective: This article is meant to serve as a general update for psychiatrists and deals with clinical, diagnostic and therapeutic issues in epilepsy.

More than 50 million people worldwide live with epilepsy every year millions more suffer seizures from other causes the brain consumes 20 % of the bodies oxygen and 30% of cardiac output problems can occur when glucose blood flow oxygen or electrical activity deviate from the norm seizures are caused by abnormal electrical discharges in the brain and are classified as either generalized those that are generalized such as tonic-clonic are the result of abnormal electrical activity affecting the entire brain are obvious to the observer a rapid loss of consciousness falling to the ground full body convulsions generalized tonic-clonic seizures often result in calls for EMS response partial seizures however are more difficult to recognize in partial seizures only part of the brain is affected by the abnormal electrical activity symptoms presented depend on which area of the brain is affected simple partial seizures cause changes in sensation or motor activity in part of the body but do not result in a loss of awareness on the other hand complex partial seizures to result in a loss of awareness though the person stays conscious they may exhibit a blank stare repetitive motions or an emotional disturbance complex partial seizures can be difficult to recognize and can easily be confused with drug or alcohol abuse those who experienced recurrent unprovoked seizures are diagnosed with epilepsy there are certain things that may trigger seizures in people with epilepsy such as flashing lights hunger stress and sleep deprivation for people without epilepsy the list of possible seizure causes is long and it's not always possible to determine the cause while on the scene but it is possible to prevent secondary medication of oxygen help prevent possible neurological damage.

Crises

Epilepsy is the most common chronic neurological disease, affecting 0.4% to 1% of the general population. The cumulative incidence of seizure is thought to be approximately 10% to age 74 years, and the lifetime likelihood of receiving a diagnosis of epilepsy is almost 3%. Temporal lobe epilepsy (TLE) is the most common epilepsy syndrome and affects almost 40% of epilepsy patients. Several risk factors are associated with epilepsy, such as prolonged childhood febrile seizure, status epilepticus, central nervous system (CNS) infections, head trauma, neoplasm, perinatal/vascular insults, mesial temporal lobe sclerosis (MTS), and a family history of epilepsy. These risk factors are thought to cause brain injury at a molecular level, leading to either biologic or morphologic changes over years, ultimately leading to the development of refractory epilepsy. Epilepsy surgery has been shown to be an effective treatment, especially for patients with refractory TLE associated with MTS

(TLE-MTS), and 60% to 70% experience seizure remission. Therefore, determining presurgical prognostic factors for TLE-MTS is important for identifying ideal candidates and predicting the prognosis of individual patients. The aim of the present study was to investigate the influence of age at surgery and seizure onset on the surgical outcome of TLE-MTS patients treated at a Brazilian tertiary center

Epilepsy is a relatively common condition, affecting 0.5% to 1% of the population. In the United States, about 2.5 million people have epilepsy and about 9% of Americans will have at least one seizure in their lifetimes. (Crociani, Rocha, Da Silva, Araujo, & Néves, 2015)

Causes

Epilepsy occurs as a result of abnormal electrical activity originating in the brain. Brain cells communicate by sending electrical signals in an orderly pattern. In epilepsy, these electrical signals become abnormal, giving rise to an “electrical storm” that produces seizures. These storms may be within a specific part of the brain or be generalized, depending on the type of epilepsy

a) What are the Emergency Medical Services ?

.....
.....

b) How long are the seizures?

.....
.....

c) Why are neuroimages and EEG's useful?

.....
.....

d) What's a tonic – clonic seizure?

.....
.....

e) What's the difference between a simple partial seizure and a complex seizure?

.....
.....

f) What causes epilepsy?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 10 about an emergency and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 10 about an emergency. Use the phrases in the box to complete in the blanks

- | |
|--|
| <ul style="list-style-type: none">a. if we don't get any response we're going to assessb. we're going to use a head tilt chin liftc. you can gain some pertinent informationd. the AED is brought to the side of the patient with use. we're going to establish CPR with hand placement one heel |
|--|

Ok! This is a CPR for the adult or the adult patient. You're on initial approach of the patient, _____(1) by just a general visual understanding of what's going on the patient's color does the patient appears though he's breathing so as I'm walking up to the patient I'm looking for chest rise and fall looking to see if his eyes are opening or closing and when I get to them if it doesn't appear as though he's awake I'm gonna shake them sir sir can you hear me can you hear me are you awake at that point _____

_____ (2) or gonna look for chest rise and fall we're gonna listen for air movement through the mouth and the nose and we're gonna try and feel for a breath on the side of our cheek by doing this we're gonna sit there and wait for a couple seconds to assess to make sure that the patient's not breathing if the patient's not breathing I'm gonna have my partner here reposition the airway and reassess in the event you know also bear in mind, when you're opening the airway _____ (3) because this is a medical patient if it was a trauma patient you would typically use the jaw thrust maneuver in order to avoid manipulating the cervical spine in any way or potentiating any types of problems that might already be existing due to the trauma at this point we're going to say that the patient's not breathing on his own and I'm going to instruct my partner here to administer two breaths and then reassess the patient we're also going to check for a pulse after those two breaths and if there's no pulse _____ (4) of the hand over the sternum between the nipple line the other hand on top and we're going to do 30 compressions, then we're gonna ventilate the patient again twice we're gonna make sure that 911 was activated if we're outside of the hospital or away from the ambulance and if there is an AED in the area such as the mall or like malls or airports we're going to make sure that _____ (5) as well and until then we're gonna continue CPR, dirty alright and that's pretty much it we just continue CPR at 100 compressions per minute preferably anywhere from 10 to 12 ventilations within that same timeframe after every 5 cycles of CPR we're gonna check a pulse and we're gonna continue to do CPR until the AED arrives once the AED arrives if it does for pre-hospital or for in the ambulance we're also going to attach the patient to the monitor and assess with our defibrillator pads for any type of shockable rhythm and continue CPR throughout that's about all I got for you man (ehow-health, 2009)

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

Oxygen EMS abnormal epilepsy medication

a. _____

b. _____

c. _____

d. _____

e. _____

TASK 9. Reinforcement. Play the “Pictionary” with your class



This game works well with any age group; children love it because they can be creative in the classroom, teenagers love it because they do not feel they are learning, and adults love it because it is a break with the monotony of learning a new language, even though they will do it by learning while playing.

Pictionary can help students practice their vocabular-----+y and see if they are remembering the words

How to play:

- Divide the class into teams of 2 and draw a line in the center of the board.
- Give each team member a pen and ask them to choose a word from the bag.
- Tell students to draw the word as an image on the board and encourage their team to guess the word.

- The first team to shout the correct answer gets a point.
- The student who has completed the drawing must nominate another person to draw for their team.
- Repeat this until all the words have disappeared. Make sure you have enough words so that each student can draw at least once!

Blood:



Pregnancy:



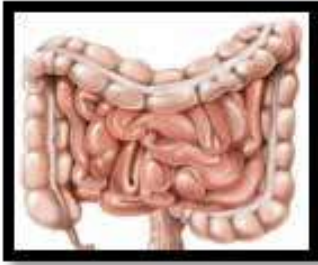
Bones:



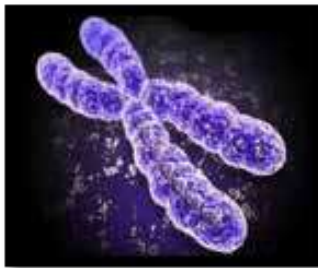
Tongue:



Bowel:



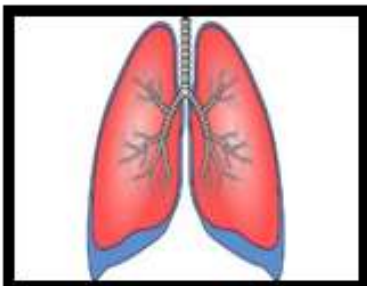
Cromosome:



Convulsions:



Lungs:



HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 11: THE PHYSICAL EXAMINATION AND HEALTH ASSESSMENT

Before starting. Answer the following question: what do you know about the physical examination and health assessment?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

a. Provider

b. Bruising

c. Bulging

d. Swelling

e. Elbows

f. Lumps

g. Ballottement

h. Blunt

i. Further

j. Swishing

k. Narrow

l. Murmurs

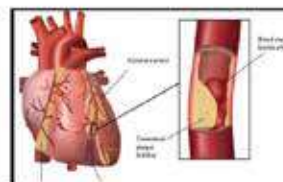
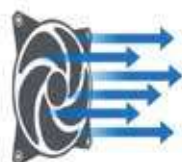
m. Threatening

n. Airflow

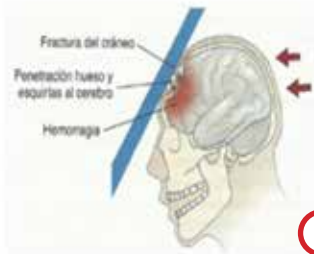
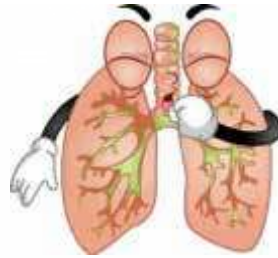
o. Blockage

p. Bowel

q. Beat



- r. Certain
- s. Joints
- t. Markedly



TASK 2. Find the following words in the grid.

- a) airflow b) ballottement c) beat d) blockage
 e) blunt f) bowel g) bruising h) bulging
 i) certain j) elbows k) further l) joints
 m) lumps n) markedly o) murmurs p) narrow
 q) provider r) swelling s) swishing t) threatening

Y	F	A	U	T	S	R	U	M	R	U	M	E	B	Ñ	T	A	O	W	D
D	U	S	M	H	E	V	E	L	B	O	W	S	Y	X	X	R	Ñ	P	W
R	S	H	K	R	F	F	Ñ	W	O	Ñ	N	I	A	T	R	E	C	C	V
E	J	N	L	E	W	O	B	M	J	O	N	V	L	I	A	Q	A	B	L
H	N	N	P	A	S	W	E	L	L	I	N	G	L	U	M	P	S	L	C
T	B	N	K	T	N	S	B	A	L	L	O	T	T	E	M	E	N	T	T
R	Ñ	O	G	E	T	H	B	E	E	A	Y	Z	U	Ñ	S	Ñ	N	Z	A
U	R	Ñ	U	N	C	V	X	R	D	W	Ñ	P	X	W	F	Y	A	R	E
F	C	G	I	I	Y	L	W	O	L	F	R	I	A	G	D	F	N	A	B
J	Y	O	S	N	B	S	S	V	X	M	I	Y	R	N	N	L	M	D	K
U	J	V	T	G	L	W	Q	O	T	S	K	T	E	L	A	J	A	E	K
A	Ñ	S	D	N	O	D	C	V	Ñ	R	V	K	D	K	P	R	E	X	F
V	A	D	R	I	C	I	N	O	X	Z	G	N	I	S	I	U	R	B	M
Q	U	W	M	H	K	B	I	M	M	X	F	A	V	I	I	H	Ñ	O	C
Y	C	I	K	S	A	B	U	L	G	I	N	G	O	W	T	M	R	T	W
T	L	H	I	I	G	O	E	D	M	V	Q	K	R	G	E	Ñ	I	Z	B
U	S	Ñ	G	W	E	R	Q	S	Q	B	Ñ	Q	P	T	H	S	W	M	Ñ
O	G	Ñ	X	S	Ñ	L	M	A	R	K	E	D	L	Y	B	U	C	C	G
F	P	H	N	X	V	V	C	C	R	S	A	S	B	L	U	N	T	G	B
C	W	W	R	K	U	W	A	R	M	W	S	E	P	S	Y	Q	Y	P	U

TASK 3.- Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about Physical Assessment, then answer the questions below



According to Chemocare (2019) website the physical assessment consists of the following parts:

Inspection

Your examiner will look at, or “inspect” specific areas of your body for normal color, shape and consistency. Certain findings on “inspection” may alert your healthcare provider to focus other parts of the physical exam on certain areas of your body. For example, your legs may be swollen. Your healthcare provider will then pay special attention to the common things that cause leg swelling, such as extra fluid caused by your heart, and use this information to help them make a diagnosis. Common areas that are inspected may include:

- Your skin - to look for bruising, cuts, moles or lumps
- Your face and eyes - to see if they are even and “normal”
- Your neck veins - to see if these are bulging, distended (swollen)
- Your chest and abdomen (stomach area)- to see if there are any masses, or bulges
- Your legs - to see if there are any swelling
- Your muscles- to check for good muscle tone
- Your elbows and joints - check for swelling and inflammation, if any deformities are present

Palpation

This is when the examiner uses their hands to feel for abnormalities during a health assessment. Things that are commonly palpated during an exam include your lymph nodes, chest wall (to see if your heart is beating harder than normal), and your abdomen. He or she will use palpation to see if there are any masses or lumps, anywhere in your body.

The four palpation techniques include light palpation deep palpation, light ballottement, and deep ballottement.

Ballottement is the technique used to evaluate a flowing or movable structure. The nurse gently bounces the structure being assessed by applying pressure against it and then waits to feel it rebound. This technique may be used, for example, to check the position of an organ or a fetus

Percussion

This is when the examiner uses their hands to “tap” on an area of your body. The “tapping” produces different sounds. Depending on the kind of sounds that are produced over your abdomen, on your back or chest wall, your healthcare provider may determine anything from fluid in your lungs, or a mass in your stomach. This will provide further clues to a possible diagnosis. For example. air-

filled cavities, such as the lungs, produce markedly different sounds from those produced by the liver and other dense organs and tissues. Percussion techniques include indirect percussion, direct percussion, and blunt percussion.

Auscultation

This is an important physical examination technique used by your healthcare provider, where he or she will listen to your heart, lungs, neck or abdomen, to identify if any problems are present.

Auscultation is often performed by using a stethoscope. The stethoscope will amplify sounds heard in the area that is being listened to. If there is an abnormal finding on your examination, further testing may be suggested.

- **The neck:** When your doctor or healthcare provider is listening to your neck, they are often listening for a “swishing” sound in your arteries. This may suggest that there is a narrowing of the arteries, which would increase the sound of blood flow.
- **The Heart:** Normally, your heart produces a “lub-dub” sound, when the heart valves are opening and closing during the flow of blood. Your healthcare provider will listen -to see if your heart is beating regularly, or if there are any murmurs (extra sounds with every heart beat). Heart murmurs may be “innocent”, meaning they are normal, and non-life threatening, or they may signify a problem may be present. To diagnose this, your healthcare provider may listen with their stethoscope to many areas around the heart, instead of just one area, and suggest further testing, if necessary.
- **The Lungs:** Your doctor or healthcare provider may listen to your lungs with their stethoscope, anywhere on your back (posterior), or on the front of your chest wall (anterior). He or she may be able to tell if air is moving to the bottom of your lungs, by listening to the airflow in and out of your lungs with each breath. These are called normal lung sounds. If there is a blockage, constriction or narrowing of your lung t-ubes, or fluid in your lungs, this can be heard by the examiner.
- **The Abdomen:** The abdomen will be examined using a stethoscope, to listen for any “swishing” sounds of blood through the arteries near your stomach (such as the aorta), or abnormal bowel sounds.

a.-. What are the appropriate times to conduct the physical assessment?

.....
.....

b. - What can be found in the inspection?

.....
.....

c. - What is the palpation?

.....
.....

d. - What's the meaning of Ballottement?

.....
.....

e.- Why is it important the auscultation in the physical assessment?

.....
.....

f. - What are the Percussion techniques?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 11 about the physical examination and health assessment and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 11 about the physical examination and health assessment. Use the phrases in the box to complete in the blanks

- a. for lateral displacement V apex beat for a better idea
- b. what's your thumbs as they move apart are both sides
- c. this is often performed incorrectly the phrase 99 was incorrectly ported
- d. for any peripheral signs of respiratory disease and take a look at your patients
- e. I'll just say clean hands and consent start by taking a good look
- f. a cardiovascular exam an abdominal exam and a full history

Hi! My name is Zack. This is Harrison and today we're going to be taking through the basics the respiratory examination. Now there a number of things you should do before any clinical exam for brevity's sake today _____ (1) at your patient from the bottom of the bed are there any obvious pain or discomfort are they comfortable at rest now listen can you hear them coughing or wheezing perhaps are they making any noise at all a silent chest is a worrying thing this a good time to measure the respiratory rate and often overlooked but vital observation count breaths over 15 seconds are multiplied by four to give breaths per minute try to avoid letting the patient know that you're doing this as awareness of one's breathing can alter the result now look in the hands _____ (2) face for any signs of anemia or hypoxia now let's check the tracheal position warn the patient of imminent discomfort then feel the trachea by placing your index and ring fingers over the clavicle and palpating the windpipe with you middle finger is that trick you're in the midline or is it deviated to one side check _____ (3) of what the respiratory tract has shifted due to thoracic pathology now we make it onto the chest itself start by having a good look notice anything unusual pay close attention to scars and deformities now when examining the lungs themselves the first important thing to assess is chest expansion both sides rising and falling symmetrically or is one side outperforming the other make a note of any asymmetry we could clarify this with a touch of palpation place your hands over the patient's chest like so so your thumbs are touching as the patient breathes in and out _____ (4) still the same or is there a difference we now move on to assess what's going on inside the chest there are three ways to do this and the first one is percussion start by tapping on the clavicles to get a good idea

as to what's going on in the apices then continue down the chest tapping in the intercostal spaces the lungs should give a healthy resonant percussion note a dull notes suggest an underlying solid mass while a hyperresonant notes may indicate a pneumothorax comparing one side to the other is the best way to identify anything abnormal the second technique at our disposal is tactile vocal fremitus now _____ (5) from the German nein inline sage chosen for its delightful low pitch diphthongs instead of 99 ask the patient to say blue balloons or boy oh boy or you feel over their intercostal spaces increased vibration once again suggests underlying consolidation something more solid than air finally it's time to use your stethoscope listen first to the apices by placing the Bell of your stethoscope in the supraclavicular fossa then work your way down the chest with the diaphragm comparing the two sides as you go listen for those breath sounds do they sound louder or quieter than they ought to increase breath sounds once again suggests consolidation do you hear anything else wheezes perhaps or crackles note what you hear and where you hear it finish by sitting the patient forward and repeating those four steps over the back paying special attention to those always tricky lung bases now you're not finished yet no respiratory exam is complete without _____

_____ (6) not to mention a peak flow yeah and a sputum sample wouldn't go amiss either but this is a good place to start and should give you a good idea as to what's going on on the other side of that chest wall finish by thanking the patient and getting them covered back up Hey guys thanks for watching if you enjoyed this video found it useful why not subscribe to our Channel you can do it by clicking that button there you can see some of the other videos in our series on closer examination just below me just down there and want to send us some helpful feedback till next time (HippocraTV, 2013).

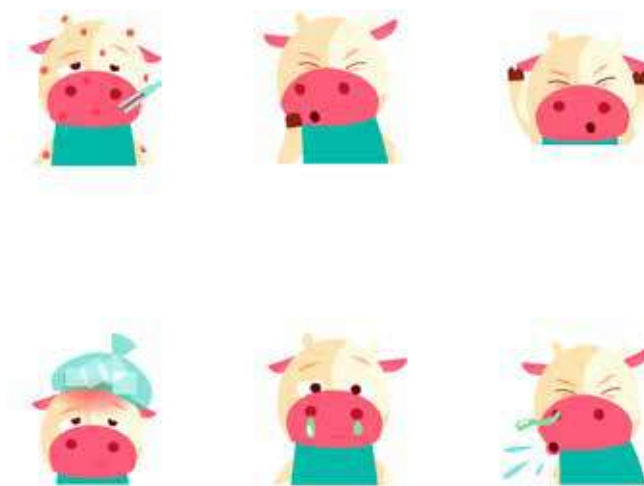
TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

Inspection palpation percussion auscultation stethoscope

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

TASK 9. Label pictures with the correct word in the box.

Chickenpox runny'nose cough headache sneeze earache



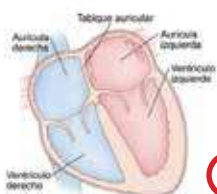
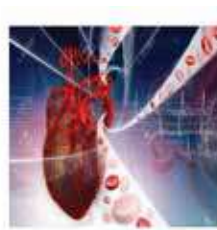
HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 12: A SURGERY

Before starting. Answer the following question: what do you know about a surgery?

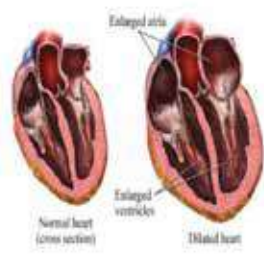
TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

- a. Leaking
- b. Faulty
- c. Pumps
- d. Upper
- e. Ventricles
- f. Chambers
- g. Surgeon
- h. Ensure
- i. Procedure
- j. Heartbeat
- k. Disrupt
- l. Smooth
- m. Enlarged
- n. Untreated
- o. Stenosis
- p. Narrowed
- q. Failure
- r. Fainting

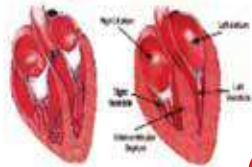


s. Cusps

t. Thick



Hypertrophic Cardiomyopathy



TASK 2. Find the following words in the grid.

- a) Surgeon b) Pumps c) Chambers d) Upper
 e) Ventricles f) Ensure g) Cusps h) Leaking
 i) Smooth j) Narrowed k) Disrupt l) Heartbeat
 m) Stenosis n) Untreated o) Faulty p) Enlarged
 q) Thick r) Failure s) Fainting Procedure

S	D	P	U	M	P	S	A	T	C	E	O	A	U	H	P	A	R	F
U	I	A	N	P	O	N	G	M	H	O	L	N	P	L	R	A	I	A
R	S	D	T	H	H	X	R	E	A	H	D	E	P	U	O	N	E	U
G	G	I	R	E	A	A	A	E	M	R	I	R	E	O	C	S	J	L
E	E	A	E	I	I	L	R	T	B	E	S	E	R	U	E	S	I	T
O	V	P	A	S	E	E	A	V	E	N	T	R	I	C	L	E	S	Y
N	N	H	T	H	I	C	K	T	R	M	A	A	N	R	O	N	T	M
N	C	R	E	D	A	U	A	L	S	X	S	O	S	O	U	S	E	E
E	O	A	D	S	E	S	S	A	U	O	E	U	H	N	R	U	M	N
L	U	G	T	R	R	P	I	O	T	I	N	Y	E	X	G	R	I	L
E	G	M	I	L	T	S	M	O	O	T	H	H	A	E	N	E	Y	A
A	H	U	S	N	S	Y	H	Q	E	A	I	H	R	T	I	E	D	R
K	N	R	S	A	R	C	E	D	M	O	D	C	T	M	T	S	O	G
I	E	I	U	R	A	J	S	N	L	G	H	T	B	A	N	H	C	E
N	D	I	S	R	U	P	T	E	O	A	T	A	E	V	I	I	A	D
G	P	P	R	O	C	E	D	U	R	E	D	E	A	L	A	T	E	O
I	H	A	B	W	E	H	H	G	E	E	N	S	T	A	F	H	U	N
A	P	I	T	E	N	F	A	I	L	U	R	E	Y	C	S	I	S	O
D	R	T	E	D	E	V	C	S	T	E	N	O	S	I	S	O	N	N

TASK 3. - Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about SURGERY, then answer the questions below



According to Capodanno et al. (2017), transcatheter valve implantation for patients with aortic stenosis: a position statement from the European Association of Cardio-Thoracic Surgery (EACTS) and the European Society of Cardiology (ESC), in collaboration with the European Association of Percutaneous Cardiovascular Interventions (EAPCI).

To critically review the available transcatheter aortic valve implantation techniques and their results, as well as propose recommendations for their use and development. Methods and results: A committee of experts including European Association of Cardio-Thoracic Surgery and European Society of Cardiology representatives met to reach a consensus based on the analysis of the available data

obtained with transcatheter aortic valve implantation and their own experience. The evidence suggests that this technique is feasible and provides haemodynamic and clinical improvement for up to 2 years in patients with severe symptomatic aortic stenosis at high risk or with contraindications for surgery. Questions remain mainly concerning safety and long-term durability, which have to be assessed. Surgeons and cardiologists working as a team should select candidates, perform the procedure, and assess the results. Today, the use of this technique should be restricted to high-risk patients or those with contraindications for surgery. However, this may be extended to lower risk patients if the initial promise holds to be true after careful evaluation. Conclusion: Transcatheter aortic valve implantation is a promising technique, which may offer an alternative to conventional surgery for high-risk patients with aortic stenosis. Today, careful evaluation is needed to avoid the risk of uncontrolled diffusion.

Previous trials have shown that among high-risk patients with aortic stenosis, survival rates are similar with transcatheter aortic-valve replacement (TAVR) and surgical aortic-valve replacement. We evaluated the two procedures in a randomized trial involving intermediate-risk patients.

In conclusion, we found that in intermediate-risk patients with severe symptomatic aortic stenosis, surgical and transcatheter valve replacement were similar with respect to the primary end point of death or disabling stroke for up to 2 years and resulted in a similar degree of lessening of cardiac symptoms (León, y otros, 2016).

Techniques of implantation: TAVI is currently carried out using two different approaches (retrograde transfemoral and antegrade trans-apical), which share the same main principles.

- Most teams perform the procedure under general anaesthesia, although sedation and analgesia may suffice for the transfemoral approach.
- Peri-procedural transoesophageal echocardiography (TEE) monitoring is desirable to correctly position the valve as well as to detect complications.
- After crossing the aortic valve, BAV is performed to pre-dilate the native valve and serve as a rehearsal for TAVI. Simultaneous rapid pacing decreases cardiac output, stabilizing the balloon during inflation. Normal blood pressure must be completely recovered between sequences of rapid pacing.

- The following imaging methods can be used to position the prosthesis at the aortic valve:
- Fluoroscopy to assess the level of valve calcification.
- Aortography, using different views, performed at the beginning of the procedure and eventually repeated with the undeployed prosthesis in place, to determine the position of the valve and the plane of alignment of the aortic cusps.
- Echocardiography: TEE is helpful, in particular, in cases with moderate calcification. The additional value of three-dimensional real-time TEE is currently being evaluated. According to the limited current experience with intracardiac echography, it does not seem to add to TEE in this setting.
- When positioning is considered correct, the prosthesis is released. Rapid pacing is used at this stage in balloon expandable but not in self-expanding devices.
- Immediately after TAVI, aortography and, whenever available, TEE or, in the absence of TEE, eventually Transthoracic echo-cardiogram (TTE) are performed to assess the location and degree of aortic regurgitation and the patency of the coronary arteries and to rule out complications such as haemopericardium, and aortic dissection. The haemodynamic results are assessed using pressure recordings and/or echocardiography.
- After the procedure, the patients should stay in intensive care for at least 24 h and be closely monitored for several days especially as regards haemodynamics, vascular access, rhythm disturbances (especially late atrio-ventricular block), and renal function.

The following are the specific issues related to the different approaches.

In the transfemoral approach, close attention should be paid to the vascular access.

The common femoral artery can be either prepared surgically or approached percutaneously. Echo-guided femoral access could be useful. Manipulation of the introductory sheaths should be careful and fluoroscopically guided. Depending on the size of the device, closure of the vascular access can be effected surgically or using a percutaneous closure device. (Vahanian, 2008)

For the transapical approach, femoral access and cardiopulmonary bypass should be on standby in patients in whom surgical conversion is an option in case of complications. The technique requires an antero-lateral mini-thoracotomy, pericardiotomy, identification of the apex, and then puncture of the left ventricle using a needle through purse-string sutures. Subsequently, an introductory sheath is positioned in the LV, and the prosthesis is implanted using the antero-grade route.

Results; Since the first-in-man TAVI by Alain Cribier in 2002, well over 1000 high-risk patients with severe symptomatic AS have been treated using TAVI

In 2005, the Canadian TAVI program was approved by the Department of Health and Welfare (Ottawa, Ontario, Canada) for compassionate clinical use in patients with symptomatic severe aortic stenosis considered nonoperable or very high surgical risk candidates. All consecutive patients who underwent TAVI between January 2005 and June 2009 in 6 Canadian centers with the Cribier-Edwards, Edwards-SAPIEN or SAPIEN XT valve (Edwards Lifesciences) in the setting of the Canadian compassionate clinical use program were included. All potential candidates for TAVI were evaluated by a multidisciplinary team composed of interventional cardiologists and cardiac surgeons who determined the eligibility of the patient for TAVI. Patients considered eligible for TAVI underwent a systematic workup protocol that included Doppler echocardiography, coronary angiography, aorto-iliofemoral angiography, and computed tomography. Depending on the size, disease, and degree of calcification of iliofemoral arteries the patients were selected for approach. (Rodés & Webb, 2010)

a. How long can this technique provide clinical improvement?

.....
.....

b. Who is this technique restricted to?

.....
.....

c. How many approaches can TAVI be carried out?

.....
.....

d. What are the imaging methods that can be used to position the prosthesis at the aortic valve?

.....
.....

e. After the procedure, how long should patients stay in intensive care for?

.....
.....

f. In the transfemoral approach, what should be paid close attention to?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 12 about a surgery and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video 12 about a surgery. Use the phrases in the box to complete in the blanks

- | |
|---|
| <ul style="list-style-type: none">a. into the femoral tunnel to create a new ACL tendonb. your doctor will remove the instruments and close the incisionsc. if your ACL tears through completely your doctor may recommend surgeryd. physical therapy should begin two or three days after surgery |
|---|

- e. until you obtain approval from your physician
- f. your surgeon will remove part of your patellar tendon to

The anterior cruciate ligament or ACL is one of the four main ligaments connecting the femur to the tibia the ACL provides stability as you move your knee a torn ACL may occur if your knee joint over rotates or if you receive a direct blow to the front of your knee _____

____(1) to repair it before your procedure you will receive either spinal anesthesia which will numb your body from the chest down or general anesthesia which will put you to sleep for the duration of the procedure during this arthroscopic procedure your surgeon will make a few incisions around your knee through which he or she will insert surgical instruments including a camera the camera will transmit images to a TV monitor which the surgeon will view during the procedure first your surgeon will remove the remaining portions of your torn ACL from your knee then _____(2) use as the graft or obtained donor tissue your surgeon will create attachment points for the graft by drilling a small tunnel in the end of your tibia then another at the end of your femur your surgeon will place one end of the patellar tendon graft in the tibial tunnel then he or she will pull the graft up through the knee joint and _____(3). Finally your surgeon will place small screws in the tunnels at either end of the new ACL to hold it in place over the next six to eight weeks bone growth will fill in these tunnels further stabilizing the graft at the end of the procedure _____

____(4) this procedure typically lasts two to two-and-a-half hours after the procedure you will go to the recovery room for two to three hours and then go home you will likely need a knee brace and crutches for one to four weeks supervised _____

____(5) and continue for six to ten weeks after this time continue with self-directed therapy as long as needed it takes about nine months for a reconstructed ACL to fully heal you should avoid contact- sports racket sports and other sports that require rapid direction changes _____(6)

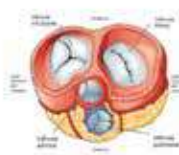
(Nucleus Medical Media, 2011).

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

Implantation surgery intermediate-risk moderate calcification echography

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

TASK 9. Reinforcement. Play the hangman with your class



INSTRUCTIONS:

1. Discover the Word that corresponds according to the image.
2. Write in the box the number of letters of the word.
3. Depending on the number in the box you have opportunities to guess.
4. If you have a foul it will be penal crossing a part of the body.

HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 13: PHYSICAL EXAMINATION OF THE ABDOMEN

Before starting. Answer the following question: what do you know about the abdomen?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

a. Ascites

b. Hemoperitoneum

c. Hypotension

d. Bowel

e. Blood pressure

f. Brisk

g. Ulcers

h. Hematoma

i. Surgical

j. Prompt

k. Pale

l. Jaundiced

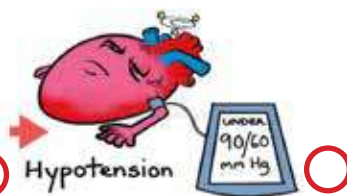
m. Pain

n. Moist

o. Sunken

p. Bleeding

q. Mass



r. Scars

s. Tender

t. Liver



*Ask your teacher for the meaning of the words you don't understand



TASK 2. Find the following words in the grid.

- a) Pale b) Jaundiced c) Pain d) Moist
 e) Sunken f) Bleeding g) Mass h) Scars
 i) Tender j) Liver k) Ascites l) Hemoperitoneum
 m) Hypotension n) Bowel o) Blood pressure p) Brisk
 q) Ulcers r) Hematoma s) Surgical t) Prompt

O	S	U	R	G	I	C	A	L	R	G	N	I	D	E	E	L	B
W	S	F	E	L	L	J	A	U	N	D	I	C	E	D	Y	J	T
S	A	S	C	I	T	E	S	P	U	L	C	E	R	S	I	N	G
R	M	L	E	Ñ	H	Y	P	O	T	E	N	S	I	O	N	R	H
H	H	P	R	T	E	I	J	N	M	W	T	E	U	Y	O	E	V
F	Y	Y	U	G	R	H	T	H	U	O	G	E	T	U	U	V	E
C	C	P	S	A	D	P	E	E	N	B	H	V	L	I	N	I	B
S	R	I	S	O	M	C	N	M	E	A	V	D	H	A	J	L	Y
S	A	U	E	O	T	S	C	A	R	S	E	U	P	O	P	T	W
D	M	Y	R	G	E	E	B	T	G	E	E	D	L	A	H	Y	C
E	B	P	P	O	Ñ	N	N	O	D	F	Y	H	I	C	I	U	H
R	R	T	D	T	L	P	S	M	I	C	W	R	P	P	E	N	B
D	I	R	O	S	Z	I	X	A	B	I	T	E	N	D	E	R	J
V	S	N	O	I	S	N	E	T	O	P	Y	L	F	Y	F	J	S
L	K	I	L	O	T	Y	U	F	H	Y	I	A	H	Y	T	G	S
E		W	B	M	M	A	T	E	M	Q	E	P	R	E	S	S	U
H	E	M	O	P	E	R	I	T	O	N	E	U	M	U	S	C	L
I	L	O	V	E	L	I	N	S	U	N	K	E	N	K	F	S	W

TASK 3. Rewrite 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
 e. _____ f. _____ g. _____ h. _____
 i. _____ j. _____ k. _____ l. _____
 m. _____ n. _____ o. _____ p. _____
 q. _____ r. _____ s. _____ t. _____

TASK 4. Read about physical examination of abdomen and answer the questions



Highlights

Severe hemorrhagic shock can be caused by a Meckel's Diverticulum in the pediatric age group. Meckel's Diverticulum can cause bleeding that is both intra-peritoneal and extraluminal. Laparoscopy or laparotomy should be required if on-going hemorrhage is suspected.

Article

Meckel's diverticulum, present in 2% of the population, is a vestigial remnant of the omphalomesenteric duct. Cases of Meckel's Diverticulum rarely present with major extra-luminal, intraperitoneal hemorrhage, and instead present with several other well-documented complications. These include perforation, intra-luminal bleeding, necrosis, intussusception, obstruction, and neoplasm. We present a rare case of Meckel's Diverticulum which caused extra-luminal, intra peritoneal bleeding, and severe hemorrhagic shock (Hosamani , Kodaganur, & Chaukimath, 2016)

Case report

A previously healthy 9-month old male presented to the emergency room with a six-hour history of vomiting and abdominal pain. On physical examination, he was pale and lethargic. Heart rate was 152, and blood pressure was 94/42 mmHg. On physical exam, he was diffusely tender, but non-distended. The hemoglobin

was 9.5 g/dL (normal 10.5–14.0). An ultrasound showed a heterogeneous mass in the right lower quadrant with free fluid in the peritoneum. This was thought to possibly represent an intussusception with ascites. During the initial evaluation, he developed hypotension (BP 60/30 mmHg). A repeat hemoglobin was 4.8 g/dL. He was treated with 40 ml/kg packed red blood cells and taken emergently to the operating room for an exploratory laparotomy.

At exploration, he was found to have free intraperitoneal bleeding and a hematoma in the right lower quadrant. A large Meckel's Diverticulum, had eroded into the adjacent ileal mesentery, causing brisk bleeding. Diverticulectomy and control of the bleeding were performed. There was no perforation in either the diverticulum, or adjacent bowel. The patient was transfused another 40 ml/kg of packed red blood cells intraoperatively and -recovered well. He was discharged home on postoperative day two. The pathology report confirmed a Meckel's Diverticulum with heterotrophic gastric mucosa and no perforation.

Discussion

Our patient presented with abdominal pain and shock of unknown etiology, and was found to have a Meckel's Diverticulum causing extraluminal, intraperitoneal hemorrhage. While intraluminal bleeding, bowel perforation, and intussusception have been well-described in such patients, extraluminal hemorrhage from a Meckel's has not been well documented (Sharma & Jain , 2008).

With a reported incidence of 0.6%–4%, Meckel's diverticulum is the most common congenital malformation of the gastrointestinal tract (4). It is also reported to be the most common cause of gastrointestinal bleeding in the pediatric age group. Intraluminal bleeding in the setting of Meckel's diverticulum usually results from ulcers in the adjacent bowel caused by the secretion of acid from heterotopic gastric mucosa (5). Diagnostic technetium-99 m pertechnetate scanning may be useful. However, this often does not give a definitive diagnosis therefore laparoscopy or laparotomy may be required.

Free intraperitoneal bleeding in the setting of bowel perforation from a Meckel's Diverticulum is rarely reported in pediatric patients but its occurrence results in large blood -volume loss and hypotension. This was the case in our patient whose bleeding was caused by erosion of the diverticulum into the adjacent

mesentery rather than ulcer perforation (Erginel , Soysal , & Ozbey, 2016). We suggest, that Meckel’s Diverticulum must be considered as a primary diagnosis in pediatric patients who present with abdominal symptoms and shock. Exploratory laparotomy after resuscitation should not be delayed if on-going hemorrhage is suspected. While intraluminal bleeding in patients with Meckel’s is well-described, extraluminal bleeding can occur, leading to massive intra-abdominal hemorrhage. Though spontaneous hemoperitoneum has been documented in affiliation with a wide array of diseases, Meckel’s Diverticulum is not commonly considered as a cause for free intraperitoneal bleeding (Bhattacharyya, Bethel, & Zuberi, 2017) .

Conclusion

Meckel’s diverticulum should be considered in pediatric patients who present with acute abdomen and signs of shock. Effective management entails prompt surgical exploration rather than observation. While hemoperitoneum in the setting of shock most commonly suggests trauma, the diagnosis of intraperitoneal bleeding from a Meckel’s diverticulum should also be considered.

a. Why is it important to do a complete physical examination?

.....
.....

b. What is the requirement to perform an adequate abdominal examination technique?

.....
.....

c. What aspects are required in the examination and in the written record?

.....
.....

d. What is the incidence of Meckel's diverticulum according to the article?

.....
.....

e. What were the most important findings of Meckel's diverticulum present in the pediatric patient?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 13 about physical examination of abdomen and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video audio 13 about physical examination of abdomen. Use the phrases in the box to complete in the blanks

- | |
|---|
| <ul style="list-style-type: none">a. well hydrated so that concludes my first setb. accessory equipment such as drips or medicationsc. his breaths and again ending it with the index fingerd. sure I feel in all nine areas of the abdomene. when examining the abdomen to start with general observationsf. I would follow this up with percussion |
|---|

Good morning Sophie and this is Alex and I think it says abdomen that we need it to examine this morning isn't it so if you're all quite comfortable. Then I think we can start:

Ok, the first think I'm going to do is just simply observe Alex and just see him sitting on the bed there and I can see that he look nice and is alert and it's quite

lively and I can also see that he's a good, he's nice and pink and he doesn't look pale or jaundiced for example and he's not got any _____ (1) or anything of that nature. Moving in to look at his hands if I look at fairly closely I can see they're a good color they're also nice and pink they feel nice and warm and I'm going to do a capillary refill time shows it was and that was less than two seconds. Okay, so it's perfusion is fine we're then going to assess his hydration and just looking in his mouth can I would it look in there stick your tongue out for me? And that looks lovely and moist eyes look nice and moist and they're not sunken and if I do a skin turgor I can see that pings back absolutely nicely so it's very ___ - _____ (2) of observations and now I want to look at is tummy and for that I need to just lie you down the little bit is that okay if you just lie back well done here.

We go we are I then so can I lift this up a bit? So, It just list it up like that so we're lifting it up just so, that we can see his rib margins there is that all right. So, thank you. So starting my next lots of observations I can see that this tummy looks nice and flat it isn't distended, there aren't any scars and it's moving nicely. Thank you. It's moving nicely with respiration which tells me the system is not hurting at all. I'm next going to do a superficial palpation so just gently feeling around the term a going all the way around making _____ (3) and what I'm mainly doing here is checking to see if it hurts anywhere so I'm not really looking at his abdomen I'm more looking at his face to see its tender anywhere and it certainly doesn't seem to be tender and I can't feel any hard areas or any garden so that's fine.

After superficial palpation, we go on to deep palpation and I'm starting the right eye like fossa and we palpate gently with each of his respirations moving up towards his liver and ending with your index finger parallel to his rib margin and I can just feel the tip of his liver there which perfectly normal in a child of his age. Moving back to the right a liar fossa we the-n move a round in the same way palpate in deeply for his spleen breathing feeling in between each of _____ (4) parallel to his rib margin I can't feel a spleen, sometimes a little spleen the back you can feel by just pulling forward in that way but there's still no spleen there and that is absolutely normal.

If the liver or spleen were palpable. _____ (5) which would help to estimate the size of enlargement. I'm going to auscultate his abdomen. That all sounds fine we'll just check down in the hernial orifices

and that looks absolutely fine no sign of any hernias or any lumps and bumps normally at this stage we would also check the external genitalia but we've already done that previously on Alex and we know that everything's fine there so we don't need to do that today one final thing if we were examining a young baby who's in nappies it will be important to start the abdominal examination with the nappy open right from the start but with a young man of Alex's age which is three it's important to examine it in a sensitive manner so that we open the top area first and then we can see the external genitalia at a later stage.

Remember _____
____(6) including the general well-being and color of the child note any accessory equipment and note the perfusion and hydration status. Then, move on to specific observations of the abdomen including noting any distension any masses or scars and how it moves with respiration (University of Leicester, 2014)

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

Hydrated rib respiration palpation percussion

a. _____

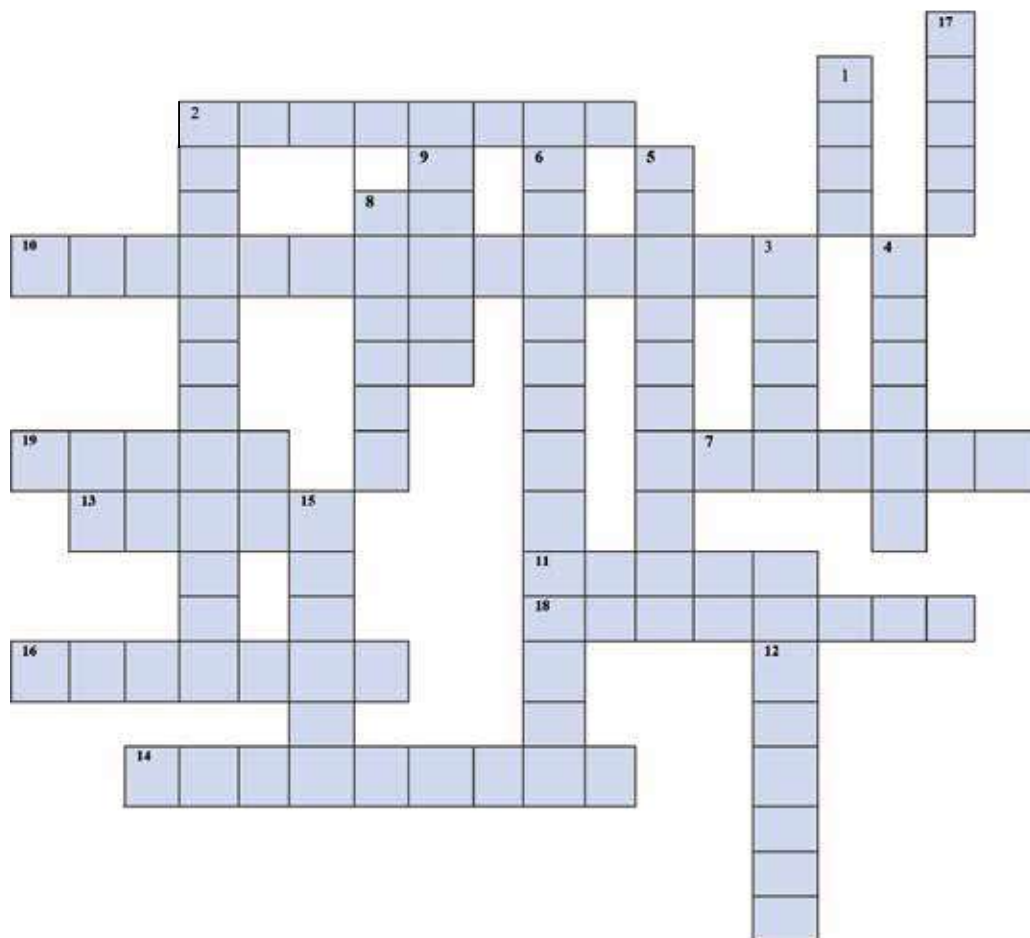
b. _____

c. _____

d. _____

e. _____

TASK 9. Reinforcement. Do the following activity



DOWN

- 1 light in color or having little color
- 2 abnormally low blood pressure.
- 3 in the body it is an accumulation of tissue that is grouped in a compact way.
- 4 at a lower level than the surrounding area.
- 5 lose blood from the body as a result of injury or illness.
- 6 the pressure of the blood in the circulatory system, often measured for diagnostic.
- 8 word synonymous with fast or immediate
- 9 slightly wet; damp or humid.

- 12 That is cut, scratched, yields or deforms easily.
- 15 the part of the alimentary canal below the stomach; the intestine.
- 17 a large lobed glandular organ in the abdomen of vertebrates, involved in many metabolic processes.

ACROSS

- 2 a solid swelling of clotted blood within the tissues
- 7 an external or internal surface of the body, caused by a break in the skin or mucous membrane that fails to heal.
- 10 Presence of free blood in the peritoneal cavity
- 11 a mark left on the skin
- 13 physical suffering or discomfort caused by illness or injury
- 14 particular unnaturally yellow in complexion.
- 16 the accumulation of fluid in the peritoneal cavity, causing abdominal swelling.
- 18 of, relating to, or used in surgery.
- 19 active, fast, and energetic.

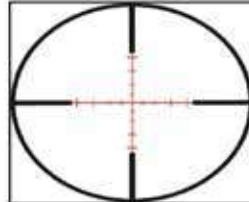
HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

LESSON 14: PULMONARY EXAMINATION

Before starting. Answer the following question: what do you know about pulmonary examination?

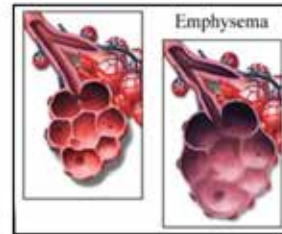
TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

- a. Scope
- b. Tenderness
- c. Inspection
- d. Palpation
- e. Percussion
- f. Auscultation
- g. Swelling
- h. Turgor
- i. Moistness
- j. Bulging
- k-. Sternum
- l. Pigeon Chest
- m. Thumbs
- n. Shrunken
- o.- Nipple
- p. Pneumothorax
- q. Pleural Effusion
- r. Ulnar



s. Emphysema

t. Neoplasm



*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid.

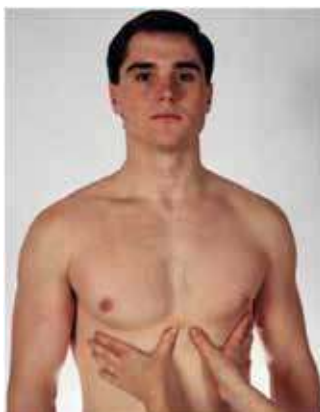
- a. Scope b. Tenderness c. Inspection d. Palpation
 e. Percussion f. Auscultation g. Swelling h. Turgor
 i. Moistness j. Bulging k. Sternum l. Pigeon Chest
 m. Thumbs n. Shrunken o. Nipple p. Pneumothorax
 q. Pleural Effusion r. Ulnar s. Emphysema t. Neoplasm

S	J	C	W	J	K	T	H	U	M	B	S	X	I	J	S	U	X	G	C
M	E	O	I	Z	K	Y	Q	I	G	Z	I	C	Ñ	O	C	X	A	O	I
I	U	F	V	E	V	H	M	I	A	W	M	B	G	V	I	S	R	R	P
N	V	N	M	I	Q	F	Q	T	Ñ	A	W	N	P	S	Ñ	H	O	S	L
S	S	X	R	T	G	A	M	E	S	Y	H	P	M	E	J	R	H	D	E
P	J	Y	J	E	Y	A	L	K	C	E	L	T	M	A	V	U	T	J	U
E	R	T	W	J	T	K	G	K	I	X	H	D	B	V	M	N	O	E	R
C	P	F	P	G	G	S	D	D	I	H	S	C	U	S	S	K	M	L	A
T	Q	R	P	M	B	U	L	G	I	N	G	G	N	S	W	E	U	P	L
I	N	O	I	T	A	T	L	U	C	S	U	A	E	O	B	N	E	P	E
O	T	D	R	K	Y	L	X	X	A	J	Y	N	G	V	E	A	N	I	F
N	K	X	E	V	A	G	E	E	C	J	R	Ñ	V	J	S	G	P	N	F
S	S	E	N	T	S	I	O	M	Q	E	T	H	G	C	P	J	I	R	U
D	X	C	Z	R	A	N	L	U	D	D	Y	N	O	H	I	X	R	P	S
S	W	E	L	L	I	N	G	N	N	H	I	P	C	Y	D	L	G	V	I
W	R	R	W	Y	H	X	E	W	I	Z	E	Q	Q	P	N	S	A	I	O
F	M	T	I	K	S	T	U	R	G	O	R	L	U	O	W	V	F	O	N
N	H	Z	B	R	G	F	B	J	U	J	B	Ñ	H	C	J	X	P	V	R
D	P	E	R	C	U	S	S	I	O	N	M	S	A	L	P	O	E	N	D
U	S	Z	E	B	F	W	N	O	I	T	A	P	L	A	P	C	H	B	F

TASK 3. Rewrite the 20 words found in task 2

- a. _____ b. _____ c. _____ d. _____
e. _____ f. _____ g. _____ h. _____
i. _____ j. _____ k. _____ l. _____
m. _____ n. _____ o. _____ p. _____
q. _____ r. _____ s. _____ t. _____

TASK 4. Read about pulmonary examination, then answer the questions below



The pulmonary examination consists of inspection, palpation, percussion, and auscultation. The inspection process initiates and continues throughout the patient encounter. Palpation, confirmed by percussion, assesses for tenderness and degree of chest expansion. Auscultation, a more sensitive process, confirms earlier findings and may help to identify specific pathologic processes not previously recognized. Also the patient's history determines the scope and intensity of chest examination.

Palpation technique

What we expect to observe while palpating? We hope to evaluate some of the following aspects: any swelling, pain, expansion, symmetry and fremitus.

With the patient disrobed, place the entire palm of each hand first on the superior portion of both hemithoraces and then, gently though firmly, move the hand inferiorly to just below the twelfth rib. Repeat the process moving laterally and subsequently anteriorly; search for rib deformities, nodules, and areas of tenderness. (Milic-Emili & Henderson, 2012)

Palpation is also important in the assessment of ventilation. One can sensitively assess the symmetry, synchrony, and volume of each breath. This is done by examining the patient posteriorly, placing the examiner's thumbs together at the midline at the level of the tenth rib with hands grasping the lateral rib cage; both visual and tactile observations are made both during tidal volume breathing and during deep forceful inhalation. With the latter, thumbs typically separate by approximately 2 to 3 cm.

A part of the palpatory portion of the chest examination is to assess the position of the trachea. This is accomplished best with the examiner stationed behind the patient, palpating the anterior inferior neck just above the jugular notch by gently pressing the fingertips between the lateral tracheal wall and the medial portion of the sternocleidomastoid muscle. Comparing one side to the other, an assessment is made of the position of the trachea: midline or deviation away from the centrist position.

Tactile appreciation of vibrations transmitted to the surface of the thorax as upper airways sounds are generated by breathing or speaking is a traditional though insensitive maneuver referred to as tactile or vocal fremitus.

Clinical Significance

Palpation is used both as a screening technique and as a means to confirm a specific diagnosis. Light palpation over the entire thorax posteriorly, laterally, and anteriorly will aid in the identification of cutaneous and subcutaneous nodules and the site of previously unsuspected tenderness. Nodules that are firm and freely moveable suggest a focal benign inflammatory or clinically insignificant problem. Those that are hard, fixed, and multiple suggest metastatic malignancy. Fleishy nodules may be indicative of a systemic disease such as neurofibromatosis.

Tenderness may be elicited during this same maneuver. At times, it is unsuspected by both the patient and the examiner. Under other circumstances, it is

used to aid in a diagnosis of the complaint of chest pain. Localizing a rib fracture, either traumatic or pathologic, or -reproducing the chest pain of costochondritis by firm palpation of an inflamed costochondral junction may be most helpful in planning further management. (Alison, 2014)

Assessment of ventilatory excursion includes evaluation of the synchrony of expansion and the degree of chest expansion associated with a deep forceful inspiration from residual volume. Asymmetrical expansion invariably implies decreased ventilation to one side. This may be due to thoracic wall abnormalities, particularly those that are either associated with structural immobility or defect (thoracoplasty) or pain (rib fracture). Similarly, the problem may be caused by an inflamed, fibrosed, or malignantly infiltrated pleura, a unilateral pleural effusion, an interstitial pulmonary process, or a complete obstruction of an airway or airways on the ipsilateral side.

Palpation is used to assess further abnormalities; gynecomastia suspected because of observed breast enlargement is confirmed by the palpation of breast tissue. Similarly, spider hemangiomas are confirmed when the central arterial supply is seen to feed the spider's radicals following manual occlusion.

-Finally, deviation of the trachea to one side can mean that a process is either pulling the trachea to one side, such as occurs with lung volume loss (lobar collapse, atelectasis, pneumothorax), or pushing the trachea away, such as might occur with either a tumor or an inflammatory mass. Spontaneous movement of the trachea in synchrony with the pulse suggests the presence of an aortic aneurysm. (Leblanc , 2016)

a) What are the stages of the pulmonary physical exam?

.....
.....

b) What is expected at observing while palpating?

.....
.....

c) How is the patient's breathing evaluated by palpation?

.....
.....

d) What is the procedure to evaluate the position of the trachea?

.....
.....

e) What is vocal fremitus?

.....
.....

f) What does an asymmetric thorax expansion imply?

.....
.....

TASK 5.- Make your own question based on the reading above, then ask and answer the different questions in groups of four.

TASK 6.- Close your book. Listen to audio 14 about pulmonary examination and take notes about the main ideas. Discuss with a partner about each others notes.

TASK 7.- Watch video audio 14 about pulmonary examination. Use the phrases in the box to complete in the blanks

- | |
|---|
| <ul style="list-style-type: none">a) The thumbs must not touch the chestb) Palpable nodes could suggest the presence of infection or metastatic diseasec) Palpate over the sternumd) Take the tape and encircle the patient's chest around the level of nipple |
|---|

- e) The general scheme is to develop a postulate and test it with further history
- f) Position of trachea
- g) physical examination of the thorax must be expanded beyond a minimal screening examination
- h) Ask the patient to take a deep breath and then exhale
- i) Explain what is going to take place and ask for consent
- j) The movement should be equal on both sides
- k) inspection, palpation, percussion and auscultation
- l) Check the tracheal position by palpating between the heads of the two clavicle

Introduction

The patient's history determines the scope and intensity of chest examination. When the history elicits suspicion of the presence of a chest problem, the _____ (1) to determine the nature of the problem so that a diagnosis can be made.

Technique

The pulmonary examination consists of _____ (2)

Palpation is used both as a screening technique and as a means to confirm a specific diagnosis.

What to observe while palpating:

- Any swelling
- Any pain/tenderness
- _____ (3)
- Chest expansion
- Chest symmetry
- Tactile vocal fremitus

Procedure

- Introduce yourself and confirm the patient's identity.
- _____ (4)
- Ask the patient to sit in the upright position.
- Note the temperature, moistness and turgor.
- Examine for any edema.
- Rule out any pulsations, bulging, masses, depressions or unusual movement.
- _____ (5)
- A slight deviation of trachea to the right is normal in healthy people.
- Trachea is displaced to the affected side in conditions such as fibrosis or collapse.
- _____ (6)
- Look for any structural deformities such as pigeon chest or funnel chest.

Feel for chest expansion

Grip method

- Face the patient before proceeding.
- Place both hands firmly on the anterior chest wall (on the lower rib cage) with the thumbs meeting in the midline of the patient's chest.
- _____ (7)
- Ask the patient to take a deep breathe in and note the distance as both the thumbs move apart during inspiration.
- Then ask the patient to breathe out and note the distance during expiration.
- _____ (8)

- Repeat the steps on the back of the patient.
- The affected side is prominent and chest expansion is reduced in pneumothorax, pleural effusion and emphysema.
- The affected side is shrunken with reduced expansion in fibrosis and collapse.
- To find out the chest symmetry you must measure the chest expansion and hemithorax using a measuring tape.
- _____ (9)
- Take measurements at the end of deep inspiration and expiration.

Normal chest expansion

- Normal chest expansion in a healthy man is 5-8 cm.
- Chest expansion in emphysema patients may be less than 1 cm.
- Measure the right hemithorax by encircling the tape from the vertebral spine to the midpoint of the sternum.
- _____ (10)
- Measure the right and left hemithorax during inspiration and expiration.
- Asymmetrical chest expansion can be seen in: Pneumothorax, Pleural effusion, Fibrosis or Extensive consolidation/collapse.
- Palpate for the right supraclavicular lymph nodes by asking the patient to move the head slightly to the right so that skin relaxes.
- Palpate deeply, just above the clavicle, to assess the supraclavicular lymph nodes.
- Do the same on the left side.
- _____ (11)
- Check for tactile vocal fremitus by placing the ulnar edge of your hand on the chest.

- Now ask the patient to say “99”.
- Check the fremitus in the upper, middle and lower areas of both lungs on the front and back side.
- Vocal fremitus is decreased in pleural effusion, pneumothorax and emphysema.
- It is increased in consolidation and neoplasm.

Physical- findings must be interpreted in light of all previously collected data

_____ (12) additional observation or maneuvers on physical examinations and laboratory tests. (Amritacreate, 2016)

TASK 8. Vocabulary. Use the words in the box to make a sentence with each one

Chest metastatic disease nipple trachea thorax
--

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

TASK 9. Reinforcement. Play the Broad Race with your class

Instructions:

1. Split the class into two teams and give each team a colored marker.
2. If you have a very large class, it may be better to split the students into 2 teams.

3. Draw a line down the middle of the board and write a topic at the top.
4. The students must then write as many words as you require related to the topic in the form of a relay race.
5. Each team wins one point for each correct word. Any words that are unreadable or misspelled are not counted.

Respiratory system organs	
Team 1	Team 2
Lungs	Trachea
Trachea	Bronchi
	Lungs

HOMEWORK. Summize the reading in task 4 and write a 300 word paragraph about it.

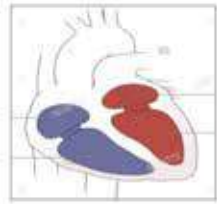
**ANSWERS KEY
(JUST FOR THE TEACHER)**

LESSON 1: HEART

Before starting. Answer the following question: what do you know about the heart?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a. Delivers



c



b

b. Pressure

c. Chambers

d. Backward



e



f

e. Covering

f. Vessels

g. Tissue



a



d

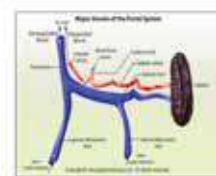
h. Drain

i. Beating

j. Branches



l

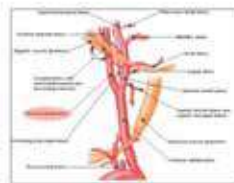


h

k. Breathe

l. Surround

m. Receives



j



i

n. Waste

o. Provide

p. Kidneys

q. Size

r. Atrium

s. Pacemaker

t. Carries



m



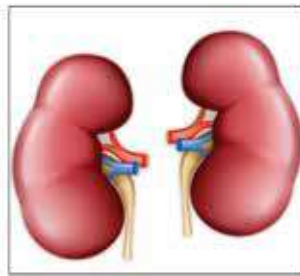
k



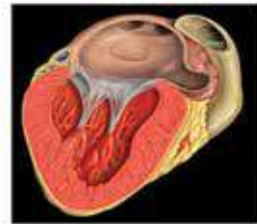
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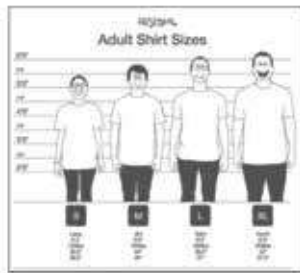
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r



t



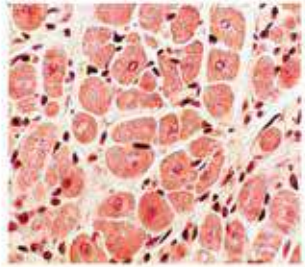
s



q



n



g

TASK 2. Find the following words in the grid.

- | | | |
|-------------|--------------|-------------|
| a. Chambers | b. Surround | c. Waste |
| d. Pressure | e. Branches | f. Receives |
| g. Covering | h. Beating | i. Kidneys |
| j. Vessels | k. Pacemaker | l. Atrium |
| m. Delivers | n. Breathe | o. Size |
| p. Backword | q. Carries | r. Provide |
| s. Drain | t. Tissue | |

A	A	E	R	S	U	R	R	O	U	N	D	F	G	H	J	K	L	B
T	S	X	E	T	S	A	W	C	V	N	M	I	O	P	W	E	R	E
R	A	C	S	D	F	G	H	J	K	K	E	R	T	R	Y	U	I	A
I	E	T	H	S	D	F	G	T	D	E	L	I	V	E	R	S	G	T
U	S	U	Q	A	P	Q	V	D	Q	E	R	T	Y	S	P	Y	O	I
M	F	I	A	W	M	W	B	R	A	N	C	H	E	S	D	E	L	N
W	G	K	Z	F	O	B	V	S	G	F	D	S	A	U	V	N	X	G
D	H	L	X	E	U	E	E	F	Ñ	L	K	J	H	R	F	D	S	A
P	A	C	E	M	A	K	E	R	Q	W	E	R	T	E	H	I	J	K
T	J	Ñ	Q	H	I	R	J	G	S	E	P	O	U	Y	T	K	T	R
G	N	I	R	E	V	O	C	H	Z	D	A	V	V	Q	A	P	Z	L
F	R	Q	G	J	B	T	K	J	X	I	S	E	C	W	S	I	X	E
G	E	W	H	K	A	Y	S	K	C	V	D	S	S	E	D	U	U	E
H	C	E	J	L	C	U	E	Ñ	V	O	F	S	W	R	F	S	B	H
J	E	R	K	Ñ	K	I	I	L	B	R	G	E	R	R	S	Y	N	T
K	I	T	C	P	W	O	R	P	N	P	H	L	G	I	G	T	J	A
C	V	Y	V	O	O	U	R	O	M	W	J	S	T	T	H	T	K	E
V	E	U	B	I	R	J	A	I	J	E	K	G	H	U	J	R	R	R
B	S	I	K	U	D	N	C	U	D	R	A	I	N	I	K	Q	D	B

TASK 4. Read about Heart, then answer the questions below

a) What is the function of the pericardium?

The pericardium is a fibrous covering which wraps around the whole heart. It holds the heart in place but allows it to move as it beats.

b) How many chambers does the heart have and in which are classified?

The heart has four chambers. The left and right side each have two chambers, a top chamber and a bottom chamber. The two top chambers are known as the left and right atria. The atria receive blood from different sources. The left atrium receives blood from the lungs and the right atrium receives blood from the rest of the body. The bottom two chambers are known as the left and right ventricles. The ventricles pump blood out to different parts of the body.

c) What are the blood vessels?

Blood Vessels are tubes which carry blood. Veins are blood vessels which carry blood from the body back to the heart. Arteries are blood vessels which carry blood from the heart to the body. There are also microscopic blood vessels which connect arteries and veins together called capillaries. There are a few main blood vessels which connect to different chambers of the heart.

d) Where are the valves located and what is their function?

Valves are fibrous flaps of tissue found between the heart chambers and in the blood vessels.

They are rather like gates which prevent blood from flowing in the wrong direction.

e) What is the main function of the cardiovascular system?

The main function of the cardiovascular system is therefore to maintain blood flow to all parts of the body, to allow it to survive.

f) Which are the main arteries that branch out of the aorta?

- Carotid arteries, which take blood to the neck and head

- Coronary arteries, which provide blood supply to the heart itself
- Hepatic artery, which takes blood to the liver with branches going to the stomach
- Mesenteric artery, which takes blood to the intestines
- Renal arteries, which takes blood to the kidneys
- Femoral arteries, which take blood to the legs

TASK 7.- Watch video 1.1 and 1.2. about Heart. Use the phrases in the box to complete in the blanks.

1-(b) 2. (h) 3. (a) 4. (d) 5. (c) 6. (e) 7. (g) 8. (f)

LESSON 2: PANCREAS

Before starting. Answer the following question: what do you know about the heart?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a. Digestive

b. Blood

c. Pancreas

d. Sugar

e. Stomach

f. Triglyceride

g. Intestine

h. Alcohol

i. Duodenum

j. Tabaco

k. Endocrine

l. Enzymes

m. Exocrine

n. Carbohydrates

o. Chemicals

p. Protein

q. Hormones

r. Abdomen



i



d



g



t



a



j



c



r



m



h



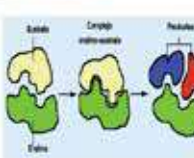
e



p



k



l

s. Insulin

t. Cholesterol



q



f



o



n



b



s

TASK 2. Find the following words in the grid.

- | | | | |
|--------------|------------------|------------------|--------------|
| a. Enzymes | b. Cholesterol | c. Triglycerides | d. Blood |
| e. Hormones | f. Carbohydrates | g. Alcohol | h. Pancreas |
| i. Insulin | j. Sugar | k. Tabaco | l. Abdomen |
| m. Endocrine | n. Intestine | o. Exocrine | p. Duodenum |
| q. Protein | r. Stomach | s. Digestive | t. Chemicals |

E	B	C	A	B	W	X	B	T	R	I	G	L	Y	C	E	R	I	D	E
N	A	T	A	B	A	C	O	C	V	W	J	C	I	A	Z	N	K	J	N
Z	Z	D	Z	C	V	Y	A	H	U	X	P	A	N	C	R	E	A	S	D
Y	Y	E	A	B	D	O	M	E	N	Y	K	B	H	B	Y	O	L	I	O
M	X	F	Y	D	I	Z	Z	M	T	Z	L	A	G	C	X	P	N	H	C
E	W	G	X	E	G	A	Y	I	S	A	M	Z	F	H	W	Q	M	G	R
S	V	S	W	F	E	B	X	C	A	L	C	O	H	O	L	R	E	F	I
A	U	T	V	G	S	C	W	A	R	B	A	Y	E	R	V	S	A	E	N
B	T	O	U	H	T	D	V	L	Q	C	R	X	D	M	U	T	T	D	E
C	S	M	T	I	I	E	U	S	P	D	B	W	Y	O	Z	A	B	C	I
D	R	A	S	J	V	F	M	C	O	E	O	V	T	N	U	V	W	N	X
E	Q	C	R	K	E	U	T	D	N	F	H	U	O	E	P	Q	T	R	S
F	P	H	Q	L	N	G	S	E	B	G	Y	T	J	S	K	E	L	M	N
G	O	H	P	E	U	H	R	F	L	H	D	S	E	F	S	G	H	I	I
H	N	I	D	M	T	I	Q	G	O	I	R	R	A	T	U	B	C	D	N
P	R	O	T	E	I	N	P	H	O	J	A	Q	I	W	G	X	Y	Z	S
I	U	J	O	N	S	J	O	I	D	K	T	N	R	S	A	T	U	V	U
D	M	K	N	O	R	K	N	J	M	L	E	P	M	N	R	O	P	Q	L
J	L	L	M	P	Q	L	M	K	L	M	S	O	L	K	J	I	H	G	I
K	C	H	O	L	E	S	T	E	R	O	L	N	A	B	C	D	E	F	N

TASK 4. Read about anatomy and physiology of the pancreas, then answer the questions

a) What is the pancreas located?

The pancreas lies in the upper abdomen behind the stomach.

b) What are the functions of the pancreas?

The pancreas has two functions: endocrine and exocrine.

c) What does the endocrine function of the pancreas produce?

Endocrine pancreas, the portions of the pancreas (the islets) that make and secrete insulin, glucagon, somatostatin and pancreatic polypeptide into the blood. Islets comprise 1-2% of pancreatic mass.

d) What does the exocrine function of the pancreas produce?

Exocrine pancreas, the portion of the pancreas that makes and secretes digestive enzymes into the duodenum.

e) What are the parts of the pancreas?

The parts of the pancreas are head, body, and tail.

g) How heavy and large is the pancreas?

The pancreas weighs about 100 grams and is 14-20 cm long

TASK 7.- Watch video 2 about Pancreas. Use the phrases in the box to complete in the blanks.

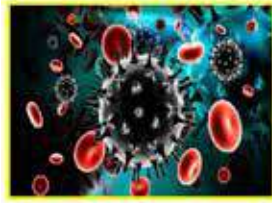
1. (b) 2-. (a) 3. (e) 4. (g) 5. (d) 6. (c) 7. (f)

LESSON 3: LIVER

Before starting. Answer the following question: what do you know about the liver?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

- a. Body
- b. Understand
- c. Aids
- d. Waste
- e. Weighs
- f. Half
- g. Unequal
- h. Harmful
- i. Essential
- j. Mild



(c)



(d)



(j)



(a)



(f)



(b)



(h)



(e)

*Ask your teacher for the meaning of the words you don't understand



(i)



(g)

TASK 2. Find the following words in the grid

- | | | |
|------------|---------------|--------------|
| a) Unequal | b) Aids | c) Meals |
| d) Mild | e) Bladders | f) Frying |
| g) Well | h) Understand | i) Essential |
| j) Ducts | k) Carry | l) Task |
| m) Supply | n) Harmful | o) Blood |
| p) Body | q) Waste | r) Vessels |
| s) Half | t) Weighs | |

E	A	B	G	E	U	N	E	Q	U	A	L	F	G	H	E	S	X	Z	X
R	A	I	D	S	A	H	J	K	M	E	A	L	S	X	Z	A	D	V	R
W	D	F	A	S	E	R	F	V	B	V	B	B	L	A	D	D	E	R	S
E	D	F	T	H	M	B	C	D	E	R	T	Y	U	I	P	P	K	B	C
L	V	B	N	F	R	Y	I	N	G	M	G	F	A	S	D	C	X	B	U
L	P	O	I	Y	T	R	D	S	E	J	K	M	I	L	D	S	C	V	N
D	F	V	S	C	F	G	H	K	S	L	P	I	G	F	V	B	C	X	D
F	G	H	J	Y	T	R	E	W	S	A	S	C	V	B	H	Y	O	P	E
D	U	C	T	S	A	C	Z	X	E	V	B	G	F	D	S	R	A	E	R
G	F	D	R	R	U	P	O	C	N	F	T	K	D	S	E	R	A	E	S
D	R	T	Y	N	M	K	G	G	T	H	A	J	T	R	S	A	F	R	T
V	F	G	C	A	R	R	Y	S	I	R	S	Q	G	T	H	C	F	B	A
Q	W	X	C	V	N	K	I	T	A	R	K	D	S	E	J	K	L	U	N
C	V	R	F	A	E	G	H	J	L	L	P	O	I	U	T	Y	U	I	D
S	U	P	P	L	Y	G	H	W	A	H	A	R	M	F	U	L	A	C	V
E	R	T	Y	D	U	I	W	E	I	G	H	S	D	W	R	T	L	P	H
A	O	U	O	E	Z	A	Q	B	H	J	K	I	D	R	E	Y	M	N	X
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B	L	U	S	R	F	J	L	G	D	D	I	K	W	A	S	T	E	O	M
B	E	U	I	V	E	S	S	E	L	S	A	W	D	F	M	G	H	N	B

TASK 4. Read about Liver, then answer the questions below

a) Where is the liver located?

-It is located in the right upper quadrant of the abdominal cavity, below the diaphragm and above the stomach, the right kidney, and intestines.

b) What are the functions of the liver?

- The liver regulates most of the levels of chemicals in the blood and secretes a substance called bile, which helps to transport the waste from the liver, developing an immune function filtering and purifying blood from the territory portal with the collaboration of Kupffer cells.

c) How many hepatocytes does the liver have?

-The hepatic lobule contains between 50 000 and 100 000 lobules

d) What is the gluconeogenesis?

- It is the formation of new glucose by hepatocytes from the intermediaries of the Krebs cycle and Glycolysis (of Galactose, fructose, amino acids and glycerol)

d) What is the bile's function?

-Bile is needed for the digestion of food.

TASK 7.- Watch video 3 about Liver. Use the phrases in the box to complete in the blanks.

1. (f) 2. (d) 3. (g) 4. (a) 5. (c) 6. (b) 7. (e)

LESSON 4: LUNGS

Before starting. Answer the following question: what do you know about the lungs?

TASK 1. Match the words below with the pictures. Listen and repeat.

a. Nostril

b. Breath

c. Cavity

d. Tissue

e. Exhalation

f. Diaphragm

g. Disease

h. Chest

i. Bronchioles

j. Lungs

k. Fissure

l. Ribcage

m. Deflate

n. Pharynx

o. Bluish

p. Heart

q. Exchange

r. Nose



q



p



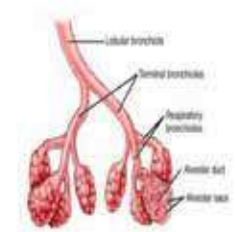
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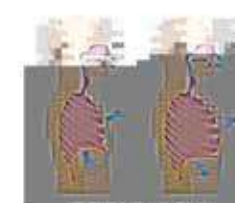
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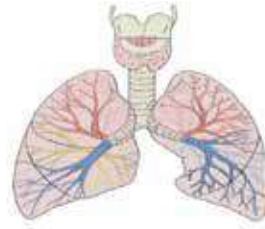
e

s. Cough

t. Trachea



r



j



t



s



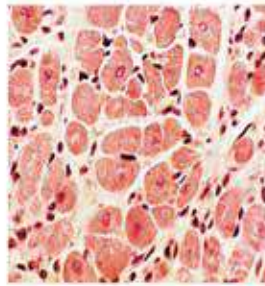
s



b



c



d

*Ask your teacher for the meaning of the words you don't understand



f



n

TASK 2. Find the following words in the grid.

- a) Nostril b) Bronchioles c) Diaphragm
- d) Fissures e) Ribcage f) Pharynx
- g) Tissue h) Cavity i) Heart
- j) Lung k) Exhalation l) Nose
- m) Cough n) Exchange o) Disease
- p) Deflate q) Bluish r) Chest
- s) Breath t) Trachea

N	D	E	A	B	R	E	A	T	H	E	O	A	E	H	C	A	R	T
O	I	A	X	P	O	N	G	M	O	O	L	N	S	L	C	A	I	A
S	S	D	E	H	H	X	R	E	D	H	D	E	E	U	E	N	E	U
T	G	I	T	E	A	A	A	E	L	R	I	R	R	O	A	S	J	L
R	E	A	U	I	I	L	R	T	O	E	S	E	R	U	S	S	I	F
I	V	P	C	S	E	E	A	Y	A	E	E	A	N	B	I	I	B	I
L	N	H	I	I	S	C	B	T	N	M	A	A	N	R	O	R	T	M
N	C	R	A	D	A	A	A	L	I	X	S	O	S	O	U	E	E	R
E	O	A	P	S	E	V	S	A	U	O	E	U	H	N	R	A	M	P
E	U	G	T	R	R	I	I	O	T	I	N	Y	C	X	U	R	I	A
A	G	M	I	L	T	T	E	A	H	O	S	H	S	E	Q	E	Y	R
P	H	U	S	U	S	Y	H	Q	E	A	I	H	X	T	A	E	D	R
T	N	R	S	N	R	C	E	D	M	O	D	C	E	M	K	S	O	H
C	E	I	U	G	A	G	S	N	L	G	H	T	R	A	E	H	C	A
A	L	A	E	S	A	D	D	E	O	A	T	A	E	V	R	I	A	I
E	N	O	R	C	A	M	S	L	N	S	D	E	F	L	A	T	E	O
I	H	A	B	O	E	H	H	G	E	E	N	E	D	A	E	H	U	N
A	P	I	T	N	N	S	E	H	H	P	C	R	Y	C	S	I	S	O
D	R	T	E	U	E	V	C	S	T	E	N	O	B	E	S	O	N	N

TASK 4. Read about Lungs, then answer the questions below

a) What is the respiratory system?

The respiratory system is a series of organs responsible for absorbing oxygen and expelling carbon dioxide.

b) What is the most important function of the lungs?

The function of the lungs is to bring oxygen to the body, which we need for the cells to live and function properly, and to help eliminate carbon dioxide, which is a waste product.

c) What organ helps the lungs in the breathing process?

The organ that helps the lungs in breathing is the diaphragm, a muscle in the lower part of the lungs that controls breathing and separates the thoracic cavity from the abdominal cavity

d) What are the pleura?

The pleurae are two smooth membranes that cover the lungs, which has 2 layers: one visceral and one parietal; and they help to inhale and exhale correctly

e) What are the arteries that supply the lungs?

The arteries are the pulmonary arteries that come directly from the heart

f) What are the two categories that classify lung diseases?

The categories that divide the diseases of the lungs are:

- Viruses: such as influenza, bacterial pneumonia, respiratory enterovirus virus
- Chronic diseases: such as asthma and chronic obstructive pulmonary disease

TASK 7.- Watch video 4 about Lungs. Use the phrases in the box to complete in the blanks.

1.(c) 2. (a) 3. (b) 4. (d) 5. (e) 6. (f) 7. (g)

LESSON 5: SMALL INTESTINE

Before starting. Answer the following question: what do you know about the small intestine?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

- a. Fulfills
- b. development
- c. Cell Turnover
- d. Velvety
- e. Stomach Flu
- f. Flushing
- g. Stomach Cramps
- h. Pain
- i. Renewed
- j. Such As Bacterial
- k. Digestión
- l. Absorption
- m. Barrier
- n. Surface
- o. Belly Distensión
- p. Or Twisted
- q. Crohn.S Disease
- r. Threatening



(c)



(a)



(h)



(h)



(e)



(f)



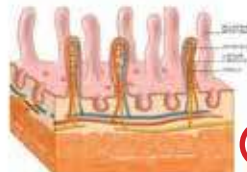
(i)



(d)



(b)



(n)



(o)

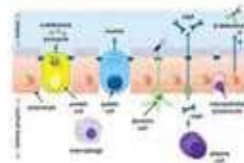


(q)

- s. Esophagus
- t. Endoscope



s



j



r



l



p



k



t



g

*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid

- a. Fulfills
- d. Velvety
- g. Stomach Cramps
- j. Such as
- m. Barrier
- p. Or Twisted
- s. Esophagus
- b. Development
- e. Stomach Flu
- h. Pain
- k. Bacterial Digestion
- n. Surface
- q. Crohn's Disease
- t. Endoscope
- c. Cell Turnover
- f. Flushing
- i. Renewed
- l. Absorption
- o. Belly Distension
- r. Threatening

A	Q	W	F	Q	W	E	R	T	Y	U	I	O	P	Á	S	D	F	G	H	J	E	Q	F	A
B	A	Q	G	S	D	G	P	A	I	N	E	R	T	H	N	J	B	E	F	G	N	E	S	S
C	S	Z	V	Z	X	C	V	B	N	M	J	H	G	F	D	S	A	R	U	A	D	A	T	D
S	U	C	K	A	S	B	A	C	T	E	R	I	A	L	F	G	R	F	J	S	O	S	O	C
U	W	E	H	A	S	D	F	G	H	J	K	L	P	O	I	U	R	V	D	Z	S	X	M	E
R	E	R	Y	E	D	F	G	H	J	K	L	I	U	Y	T	R	I	C	I	D	C	C	A	F
F	D	T	N	S	T	O	M	A	C	H	F	L	U	A	B	C	E	V	G	L	O	C	C	V
A	X	Y	R	Q	S	D	F	G	H	J	K	L	P	O	I	U	R	B	E	U	P	V	H	B
C	C	U	E	A	E	R	E	N	E	W	E	D	E	F	C	E	B	N	S	Y	E	S	C	H
E	V	I	W	D	F	G	H	J	K	L	O	I	U	M	N	B	V	F	T	W	F	G	R	O
D	F	O	Q	A	S	D	F	G	H	V	R	E	B	F	L	U	S	H	I	N	G	H	A	R
E	R	P	A	Q	S	D	V	B	N	M	J	O	P	E	G	F	Q	B	O	S	Y	H	M	T
F	T	P	V	G	J	H	N	M	B	V	C	A	S	D	F	R	A	G	N	D	H	K	P	W
G	G	B	E	L	L	Y	D	I	S	T	E	N	S	I	O	N	Z	T	D	H	Q	L	S	I
H	B	P	L	A	S	D	F	G	H	V	R	E	B	H	J	I	D	V	F	E	S	M	E	S
J	N	O	V	A	S	D	F	G	H	V	R	E	B	A	S	D	C	F	C	S	X	A	R	T
R	H	C	E	L	L	T	U	R	N	O	V	E	R	F	K	L	V	C	V	O	C	B	T	E
T	Y	I	T	H	R	E	A	T	E	N	I	N	G	H	Y	U	F	D	B	P	F	S	Y	D
F	U	U	Y	E	R	U	Q	W	E	R	T	Y	U	I	O	P	R	E	H	H	V	O	U	Q
V	J	U	Q	D	F	Y	D	E	V	E	L	O	P	M	E	N	T	W	K	A	B	R	O	W
G	M	Y	A	X	G	H	A	S	D	F	G	H	J	K	L	O	T	S	T	G	H	P	K	E
B	C	R	O	H	N	D	I	A	S	E	S	R	T	Y	Q	I	M	X	P	U	N	T	N	R
D	L	T	T	H	J	K	L	P	I	U	Y	T	R	E	R	U	N	Z	Y	S	M	I	V	T
W	P	R	G	F	U	L	F	I	L	L	S	G	G	H	Q	Y	H	A	E	R	K	O	C	Y
W	B	E	T	T	G	Y	H	N	B	V	C	Z	F	D	A	T	Y	Q	S	F	I	N	D	B

TASK 4. Read about small intestine, then answer the questions below

a) What is the main function of the small intestine?

It fulfills the functions of digestion, absorption, barrier and also immunity.

b) What is the small intestine?

The small intestine is the section of the digestive system that connects the stomach with the large intestine.

c) What are the parts of the small intestine?

It is divided into three parts: duodenum, jejunum and ileum

d) What is the small intestine located?

It is located between two sphincters: the pyloric, and the ileocecal, which communicates with the large intestine

e) What are the morphological characteristics of the small intestine?

Circular folds Intestinal villi Microvilli of the small intestine

f) What is the irrigation of the small intestine?

Irrigation comes from the superior mesenteric artery, branch of the aorta, which walks within the mesentery-

TASK 7.- Watch video 5 about Small intestine. Use the phrases in the box to complete in the blanks

1. (c) 2. (a) 3. (b) 4. (d) 5. (g) 6. (e) 7. (f) 8. (h)

LESSON 6: LARGE INTESTINE

Before starting. Answer the following question: what do you know about the large intestine?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a) Smooth

b) Features

c) Within

d) Sinus

e) Both

f) Attached

g) Strong

h) Pouches

i) Dentate

j) Wrinkled

k) Appendages

l) Hindgut

m) Jagged

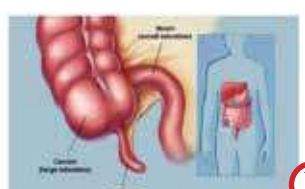
n) Sac-like

o) Whereas

p) Sphincter

q) Below

r) Remain



- s) Fairly
- t) Both



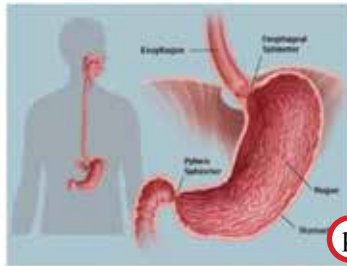
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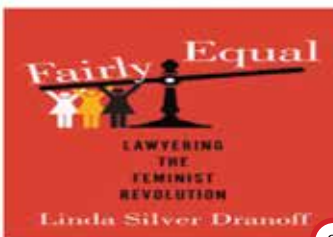
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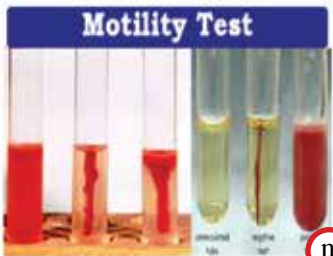
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c



o



n



q

*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid

- a. Valve b. Straight c. Anal d. Pelvis e. Appendix
 f. Colon g. Water h. Vitamin i. Skeleton j. Dentate
 k. Bonus l. Mucosa m. Mobility n. Feces o. Function
 p. Diverticulitis q. Fecalitus r. Peritoneum s. Ileus t. Hemorrhage

E	E	T	D	N	P	E	L	V	I	S	E	O	P	D	T	N	E	E	
C	S	E	E	T	A	L	C	S	R	A	V	E	P	O	L	G	A	L	
A	O	M	M	T	T	C	I	M	E	A	A	A	C	A	O	V	V		
D	S	E	S	T	V	S	T	I	E	O	C	A	L	H	R	S	O	A	
D	U	M	N	A	P	P	E	N	D	I	X	T	R	V	E	D	A	S	
A	I	V	E	U	I	S	O	S	V	D	R	R	U	C	E	R	G	K	
P	C	V	I	P	A	E	I	V	T	I	O	I	F	M	F	L	N	E	
L	A	W	E	T	O	B	N	I	C	M	T	F	E	N	T	R	M	M	L
A	L	A	O	R	N	L	S	I	E	N	B	A	A	I	E	O	U	E	
Q	R	T	C	F	T	R	N	H	R	P	O	T	M	P	E	B	C	T	
E	R	E	I	E	E	I	S	S	I	T	N	S	S	I	C	I	O	O	
Y	A	R	C	C	E	U	C	O	A	E	U	U	C	I	N	L	S	N	
D	I	V	E	A	E	S	A	U	D	N	S	P	A	U	U	I	A	G	
A	D	U	N	L	I	X	U	A	L	O	A	M	O	D	L	T	G	E	
D	S	U	I	I	C	P	M	E	E	I	A	N	E	A	I	Y	L	I	
M	I	E	I	T	E	I	P	E	R	I	T	O	N	I	U	M	E	I	
I	S	C	S	U	O	E	O	V	S	V	U	I	C	O	L	O	N	V	
G	S	L	D	S	S	S	H	T	I	R	O	A	S	A	I	L	S	S	
T	I	F	U	N	C	T	I	O	N	R	A	N	A	L	N	D	R	A	

TASK 4. Read about the large intestine, then answer the questions below

a) What are the functions of the large intestine?

The key functions of the colon include the following:

- Water and nutrient absorption
- Vitamin absorption
- Feces compaction
- Potassium and chloride secretion
- Moving waste material toward the rectum

b) What are the parts of the large intestine?

The large intestine is subdivided into four main regions: the cecum, the colon, the rectum, and the anus.

c) What are the three unique features to the large intestine:

Three features are unique to the large intestine: teniae coli, haustra, and epiploic appendages.

d) Where is the ileocecal valve and what is its function.

The ileocecal valve is located in the opening between the ileum and the large intestine and controls the flow of chyme from the small intestine to the large intestine.

e) Where does the large intestine develop from?

Embryologically, the colon develops from the midgut, the hindgut, and the proctodeum.

f) ¿Which is the appendix?

The appendix is a rolled tube that attaches to the cecum, 7.6 cm long and contains lymphoid tissue, but this organ is generally considered vestigial.

TASK 7.- Watch video 6 about Large intestine. Use the phrases in the box to complete in the blanks

- 1.(b) 2. (f) 3. (d) 4. (e) 5. (a) 6. (c)

LESSON 7: STOMACH

Before starting. Answer the following question: what do you know about the stomach?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a. Bacteria

b. Intrinsic

c. Cells

d. Parietal

e. Precursor

f. Glands

g. Chyme

h. Secretes

i. Rugae

j. Mucosa

k. Mixes

l. Pulverize

m. Intestine

n. Smooth

o. Contractile

p. Stomach

q. Lesser

r. Esophagus



c



f



d



b



e



a



h



o

s. Walls

t. Sphincters



n



l



k



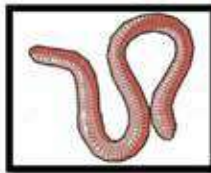
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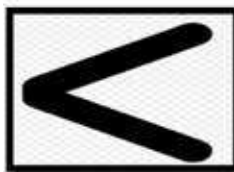


s



p

*Ask your teacher for the meaning of the words you don't understand



q



t

TASK 2. Find the following words in the grid.

- a) Stomach b) Smooth c) Intestine d) Interstic
- e) Glands f) Bacteria g) Cells h) Precursor
- i) Sercretes j) Pilvefrize k) Walls l) Mixes
- m) Mucosa n) Chyme o) Lesser p) Rugae
- q) Parietal r) Esophagus s) Contractile t) Sphincteres

A	S	D	F	G	Q	Y	I	O	J	K	L	P	Ñ	O	P	Q	S	A	F	V	N	M
S	T	O	M	A	C	H	A	Y	O	I	A	U	O	I	Y	L	U	I	P	N	Y	G
R	U	U	A	E	T	T	U	V	P	W	A	L	L	S	R	P	Y	E	A	I	R	F
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U	I	O	A	U	M	O	O	I	C	T	I	E	M	U	A	E	E	H	S	P	A	T
I	A	U	E	N	O	M	U	I	I	U	I	R	I	I	I	R	A	Y	X	A	I	Q
O	Q	I	N	T	E	S	T	I	N	E	O	I	X	O	U	O	I	T	O	C	U	E
Y	E	T	I	R	F	Y	U	I	T	Y	I	Z	E	Y	Y	I	U	U	A	S	Y	A
R	A	Y	O	E	R	S	E	C	R	E	T	E	S	R	T	C	I	A	U	X	T	U
E	U	V	P	A	T	Q	C	X	I	L	P	C	T	E	R	H	I	O	A	L	R	I
A	I	V	A	I	Q	E	Q	U	S	O	R	E	E	A	E	Y	A	U	E	E	E	O
I	O	I	C	U	E	A	W	G	T	U	E	R	A	I	P	M	U	C	O	S	A	P
U	P	F	Q	Y	E	U	Y	L	I	I	C	O	I	P	R	E	C	U	R	S	O	R
Y	R	R	C	T	E	I	B	A	C	T	E	R	I	A	T	E	T	I	T	E	T	E
T	E	T	R	E	H	O	A	N	P	A	L	A	I	R	C	O	O	U	I	R	Y	R
R	R	Q	U	A	Y	P	U	D	R	T	L	C	U	I	E	T	I	O	U	E	P	T
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X	E	T	I	O	U	R	P	U	C	O	N	T	R	A	C	T	I	L	E	W	U	I
W	E	L	U	I	P	A	T	O	Y	P	Q	C	B	L	O	A	I	R	F	Q	Y	E
Q	I	P	Y	E	A	I	Q	I	T	H	I	V	A	I	Q	C	O	E	R	C	T	E
C	M	C	T	E	C	U	E	T	E	A	O	I	C	U	E	S	P	A	T	R	E	H
R	M	E	E	H	S	Y	A	E	A	G	P	F	Q	Y	E	X	A	I	Q	U	A	Y
U	I	R	A	Y	X	T	U	E	I	U	R	R	C	T	E	O	C	U	E	T	I	T
T	E	O	I	T	O	O	I	A	O	S	P	H	I	N	C	T	E	R	E	S	O	J

TASK 4. Read about Stomach, then answer the questions below.

a) What are the functions of the stomach?

The stomach functions are receive food from the esophagus, mixes it with gastric juice, initiates the digestion of the proteins, carries on limited absorption, and moves food into the small intestine.

b) Where are the gastric pits located?

They are located at the ends of tubular gastric gland (oxyntic glands)

c) What is the capacity of stomach?

It has a capacity of one liter or more

d) Where is the stomach located?

The stomach hangs inferior to the diaphragm in the upper left portion of the abdominal cavity.

e) How many sections does the stomach have?

--The stomach is divided into four sections: the cardiac region, the fundus, the body, and the pylorus or atrium.

f) What is the most important digestive enzymes in the gastric juice?

The pepsin is the most important enzyme because of the chief cells secrete it as an inactive, non-erosive enzyme precursor called pepsinogen

g) How many tissue layers do the stomach and duodenum have?

The stomach and duodenum have four tissue layers: mucosa, submucosa, muscularis propria, and serosa.

TASK 7.- Watch video 7 about stomach. Use the phrases in the box to complete in the blanks

1. (b) 2. (a) 3. (d) 4. (c)

LESSON 8: MASCULINE REPRODUCTIVE SYSTEM

Before starting. Answer the following question: what do you know about the masculine reproductive system?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a. Sack

b. Aid

c. Both

d. Behind

e. Maturation

f. Delivers

g. Fold

h. Skin

i. Foreskin

j. Surface

k. Sinuses

l. Aroused

m. Able

n. Pregnancy

o. Joins

p. Shortly

q. Alkalinity

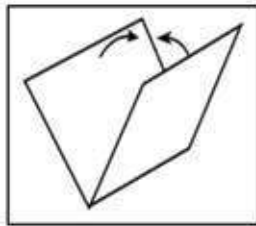
r. Salty



r



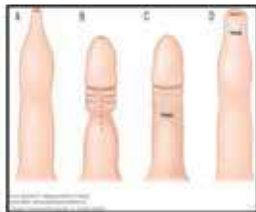
f



g



a



i



k



e



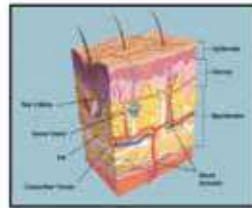
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s. Thick

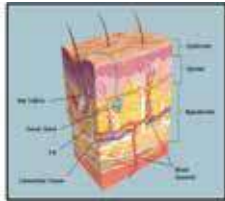
t. Walnut



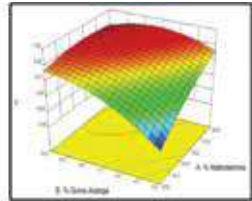
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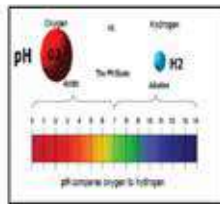
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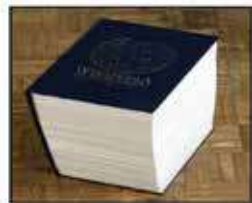
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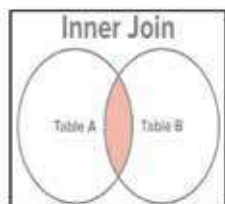


b



s

*Ask your teacher for the meaning of the words you don't understand



o



n

TASK 2. Find the following words in the grid

- | | | | |
|---------------|-------------|---------------|--------------|
| a. aid | b. skin | c. surface | d. salty |
| e. both | f. foreskin | g. alkalinity | h. aroused |
| i. maturation | j. sinuses | k. joins | l. shortly |
| m. delivers | n. sack | o. walnut | p. pregnancy |
| q. fold | r. behind | s. thick | t. able |

A	I	D	A	Q	A	L	K	A	L	I	N	I	T	Y	E	R
D	F	A	R	O	U	S	F	D	G	H	J	M	K	L	Z	T
F	A	G	G	Q	W	A	L	N	U	T	U	A	G	H	S	Y
O	S	F	H	W	Y	D	D	S	Y	H	A	T	H	H	A	U
R	D	S	D	E	L	I	V	E	R	S	E	U	O	J	C	I
E	F	E	J	E	H	F	C	F	G	A	I	R	E	M	K	O
S	I	N	U	S	E	S	F	V	V	E	T	A	A	J	B	P
K	G	T	O	U	F	B	O	T	H	L	O	T	O	O	V	A
I	H	Y	P	R	D	T	L	D	Y	I	U	I	I	I	C	S
N	J	S	G	F	S	U	D	I	S	O	A	O	E	N	X	A
H	K	A	F	A	W	H	J	O	S	K	I	N	A	S	Z	B
G	L	L	D	C	T	T	H	I	C	K	E	I	U	I	X	L
F	M	T	E	E	H	H	K	P	Q	D	N	I	H	E	B	E
D	N	Y	T	P	R	E	G	N	A	N	C	Y	O	O	C	D

TASK 4. Read about Male Reproductive System, then answer the questions below

a) What is the function of the male reproductive system?

To delivers sperm to the female reproductive tract.

b) What are the male external genital organs?

The penis and scrotum

c) What are the male internal genital organs?

Epididymis, seminal vesicles, prostatic gland and bulbourethral glands.

d) What is the function of the prostatic gland?

It excretes a milky and alkaline fluid to the passing seminal fluid, called semen

e) What is the temperature for the development of the testicles?

Between 2 and 4 ° C below the core body temperature.

f) Why is the sh-aft of the penis formed?

By two cavernous bodies and a spongy body

TASK 7.- Watch video 8 about Male Reproductive System. Use the phrases in the box to complete in the blanks

- 1.(e) 2. (c) 3. (f) 4. (a) 5. (d) 6.(g)
7. (b)

LESSON 9: FEMALE REPRODUCTIVE SYSTEM

Before starting. Answer the following question: what do you know about female reproductive system?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

a.- soft

b.- flashcard

c.- brief

d.- overview

e.- releases

f.- ovarian

g.- follicles

h.- blood

i.-vulva

j.- fatty

k.- surround

l.- urethral

m.- clitoris

n.- vagina

o.- fallopian tube

p.- uterus

q.- sperms

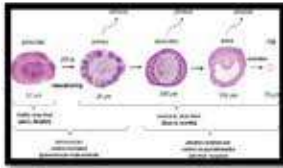
r.-fertilization



h



d



g



c



a



e



f



j

s.-implantation

t.-ovum



b



i



k



q



n



p



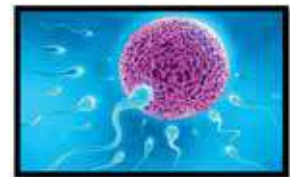
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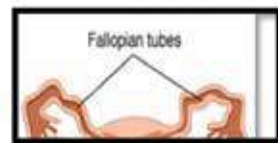
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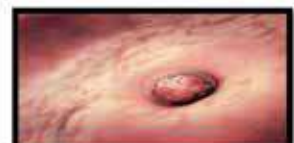
m



r



o



s

*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid.

- | | | | |
|--------------|-------------------|-------------|------------------|
| a. soft | b. ovarian | c. surround | d. uterus |
| e. flashcard | f. follicles | g. urethral | h. clitoris |
| i. brief | j. blood | k. ovum | l. sperms |
| m. overview | n. vulva | o. vagina | p. fertilization |
| q. releases | r. fallopian tube | s. fatty | t. implantation |

U	R	E	T	H	R	A	L	S	J	F	A	O	S	S
A	H	E	I	D	S	P	M	W	U	O	X	V	S	U
B	V	A	G	I	N	A	U	T	T	L	V	E	V	R
L	M	W	F	W	U	I	X	N	E	L	A	R	T	R
O	Y	D	A	B	S	U	I	S	R	I	M	V	G	O
O	L	E	T	O	S	O	F	T	U	C	E	I	F	U
D	A	X	T	S	I	U	B	E	S	L	T	E	L	N
G	G	R	Y	A	O	J	L	A	B	E	Y	W	U	D
F	L	A	S	H	C	A	R	D	K	S	A	A	-	E
I	E	F	E	R	T	I	L	I	Z	A	T	I	O	N
F	A	L	L	O	P	I	A	N	T	U	B	E	C	P
B	R	B	Ñ	K	O	T	G	E	S	E	O	O	L	A
I	M	P	L	A	N	T	A	T	I	O	N	V	I	G
D	Q	Q	A	E	H	S	I	I	P	O	B	A	T	V
R	E	L	E	A	S	E	S	S	N	C	L	R	O	U
F	T	T	Z	R	Z	D	E	E	P	V	T	I	R	L
O	V	U	M	E	S	P	E	R	M	S	S	A	I	V
F	I	D	H	M	B	R	I	E	F	O	B	N	S	A

TASK 4. Read about Female Reproductive System, then answer the questions below

a.- What is the female reproductive system?

The female reproductive system is a well-coordinated group of organs that exist for the sole purpose of preparing for and maintaining a normal pregnancy

b.-What organs are in the female reproductive system?

The female reproductive system includes the ovaries, fallopian tubes, uterus, vagina, vulva, mammary glands and breasts.

c. What opens into the vagina?

The uterus

d. What's is the general objective of the paper above?

to consider the female genital system of this tickas a whole and to analyze the morphological and functional interrelations between different structures

e. How is vagina divided?

It is divided in a cervical vagina and a vestibular vagina

TASK 7.- Watch video 9 about Female Reproductive System. Use the phrases in the box to complete in the blanks

1.(c) 2. (a) 3. (d) 4. (b) 5. (e) 6. (h) 7. (f) 8. (i) 9. (g)

10. (j)

LESSON 10: AN EMERGENCY

Before starting. Answer the following question: what do you know about an emergency?

TASK 1. Match the words below with the pictures. Listen and repeat.

a. seizures

b. deviate

c. awareness

d. wires

e. spill

f. painful

g. witnesses

h. clues

i. labeling

j. approach

k. risk

l. bystander

m. device

n. high-flow

o. threatened

p. mask

q. assess

r. postictal



t



n



a



e



b



s



o



q

s. spasms

t. suction



d



r



l



j



c



m



f



h



p



i

*Ask your teacher for the meaning of the words you don't understand



g



k

TASK 2. Find the following words in the grid.

- a) Seizure b) Deviate c) Awareness d) Wires
- e) Spill f) Painful g) Witnesses h) Clues
- i) Labeling j) Approach k) Risk l) Bystander
- m) Device n) Mask o) Threatened p) High - flow
- q) Assess r) Postictal s) Spasms t) Suction

A	I	E	J	H	I	G	H	F	L	O	W	H	J	D	A	A	G	H	A
P	A	T	D	U	R	O	F	G	S	D	W	J	L	K	L	S	L	J	W
P	P	A	F	T	T	P	G	M	E	F	S	I	N	A	L	S	A	E	A
R	K	I	G	P	A	I	N	F	U	L	A	S	R	D	I	E	B	I	R
O	U	V	B	Y	Y	A	H	N	L	H	G	M	M	E	P	S	E	Q	E
A	S	E	I	Z	U	R	E	S	C	J	I	S	H	V	S	S	L	H	N
C	O	D	K	Q	P	O	S	T	I	C	T	A	L	I	S	O	I	Y	E
H	E	I	M	W	U	S	J	B	C	B	G	P	E	C	F	G	N	U	S
W	J	J	K	W	I	T	N	E	S	S	E	S	D	E	H	K	G	O	S
R	N	S	J	E	I	D	K	V	S	V	T	R	R	W	V	T	S	D	S
Y	I	J	T	T	H	R	E	A	T	E	N	E	D	C	D	A	V	A	F
R	E	Ñ	B	Y	S	T	A	N	D	E	R	S	U	C	T	I	O	N	M

TASK 4. Read about An Emergency, then answer the questions below

a) What are the Emergency Medical Services ?

Emergency Medical Services, more commonly known as EMS, is a system that provides emergency medical care. Once it is activated by an incident that causes serious illness

b) How long are the seizures?

Concussive convulsions have an immediate onset (within a few seconds), a relatively brief duration (<2–3 minutes), and a brief postictal period.

c) Why are neuroimages and EEG's useful?

EEG and neuroimaging, are used to assess a possible etiology, prognosis and can influence the decision between medical or surgical treatment.

d) What's a tonic clonic seizure?

The norm seizures are caused by abnormal electrical discharges in the brain and are classified as tonic-clonic, these are the result of abnormal electrical activity affecting the entire brain and are obvious to the observer as rapid loss of consciousness with the patient falling to the ground.

e) What's the difference between a simple partial seizure and a complex seizure?

Simple partial seizures cause changes in sensation or motor activity in part of the body but do not result in a loss of awareness on the other hand complex partial seizures to result in a loss of awareness though the person stays conscious

f) What causes epilepsy?

Epilepsy occurs as a result of abnormal electrical activity originating in the brain. Brain cells communicate by sending electrical signals in an orderly pattern. In epilepsy, these electrical signals become abnormal, giving rise to an “electrical storm” that produces seizures. --

TASK 7.- Watch video 10 about an emergency. Use the phrases in the box to complete in the blanks

1.(c)

2. (a)

3. (b)

4. (e)

5. (d)

LESSON 11: THE PHYSICAL EXAMINATION AND HEALTH ASSESSMENT

Before starting. Answer the following question: what do you know about the physical examination and health assessment?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

- a. Provider
- b. Bruising
- c. Bulging
- d. Swelling
- e. Elbows
- f. Lumps
- g. Ballottement
- h. Blunt
- i. Further
- j. Swishing
- k. Narrow
- l. Murmurs
- m. Threatening
- n. Airflow
- o. Blockage
- p. Bowel
- q. Beat



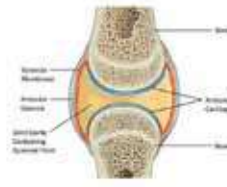
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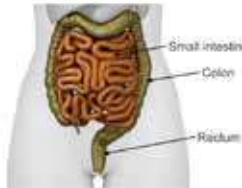
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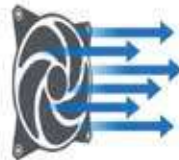
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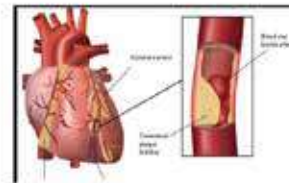
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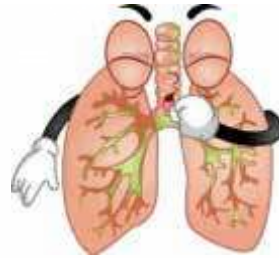
r. Certain

s. Joints

t. Markedly



i



j



h



g



c



d



b



a



f



e

TASK 2. Find the following words in the grid.

- a) airflow b) ballottement c) beat d) blockage
- e) blunt f) bowel g) bruising h) bulging
- i) certain j) elbows k) further l) joints
- m) lumps n) markedly o) murmurs p) narrow
- q) provider r) swelling s) swishing t) threatening

Y	F	A	U	T	S	R	U	M	R	U	M	E	B	Ñ	T	A	O	W	D
D	U	S	M	H	E	V	E	L	B	O	W	S	Y	X	X	R	Ñ	P	W
R	S	H	K	R	F	F	Ñ	W	O	Ñ	N	I	A	T	R	E	C	C	V
E	J	N	L	E	W	O	B	M	J	O	N	V	L	I	A	Q	A	B	L
H	N	N	P	A	S	W	E	L	L	I	N	G	L	U	M	P	S	L	C
T	B	N	K	T	N	S	B	A	L	L	O	T	T	E	M	E	N	T	T
R	Ñ	O	G	E	T	H	B	E	E	A	Y	Z	U	Ñ	S	Ñ	N	Z	A
U	R	Ñ	U	N	C	V	X	R	D	W	Ñ	P	X	W	F	Y	A	R	E
F	C	G	I	I	Y	L	W	O	L	F	R	I	A	G	D	F	N	A	B
J	Y	O	S	N	B	S	S	V	X	M	I	Y	R	N	N	L	M	D	K
U	J	V	T	G	L	W	Q	O	T	S	K	T	E	L	A	J	A	E	K
A	Ñ	S	D	N	O	D	C	V	Ñ	R	V	K	D	K	P	R	E	X	F
V	A	D	R	I	C	I	N	O	X	Z	G	N	I	S	I	U	R	B	M
Q	U	W	M	H	K	B	I	M	M	X	F	A	V	I	I	H	Ñ	O	C
Y	C	I	K	S	A	B	U	L	G	I	N	G	O	W	T	M	R	T	W
T	L	H	I	I	G	O	E	D	M	V	Q	K	R	G	E	Ñ	I	Z	B
U	S	Ñ	G	W	E	R	Q	S	Q	B	Ñ	Q	P	T	H	S	W	M	Ñ
O	G	Ñ	X	S	Ñ	L	M	A	R	K	E	D	L	Y	B	U	C	C	G
F	P	H	N	X	V	V	C	C	R	S	A	S	B	L	U	N	T	G	B
C	W	W	R	K	U	W	A	R	M	W	S	E	P	S	Y	Q	Y	P	U

TASK 4. Read about Physical Assessment, then answer the questions below

a.- What are the appropriate times to conduct the physical assessment?

Inspection , Palpation, Percussion, Auscultation

b.- What can be found in the inspection?

We will look at, or “inspect” specific areas of your body for normal color, shape and consistency. Certain findings on “inspection” may alert your healthcare provider to focus other parts of the physical exam on certain areas of your body.

c.- What is the palpation?

This is when the examiner uses their hands to feel for abnormalities during a health assessment. Things that are commonly palpated during an exam include your lymph nodes, chest wall (to see if your heart is beating harder than normal), and your abdomen.

d. - What's the meaning of Ballottement?

Ballottement is the technique used to evaluate a flowing or movable structure, This technique may be used, for example, to check the position of an organ or a fetus.

e. - Why is it important the auscultation in the physical assessment?

This is an important physical examination technique used, where we will listen to your heart, lungs, neck or abdomen, to identify if any problems are present

f.- What are the Percussion techniques?

Percussion techniques include indirect percussion, direct percussion, and blunt percussion

TASK 7.- Watch video 11 about the physical examination and health assessment. Use the phrases in the box to complete in the blanks

1.-(e) 2. (d) 3. (a) 4. (b) 5. (c) 6. (f)

LESSON 12: A SURGERY

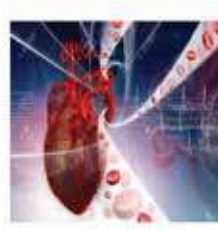
Before starting. Answer the following question: what do you know about a surgery?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

- a. Leaking
- b. Faulty
- c. Pumps
- d. Upper
- e. Ventricles
- f. Chambers
- g. Surgeon
- h. Ensure
- i. Procedure
- j. Heartbeat
- k. Disrupt
- l. Smooth
- m. Enlarged
- n. Untreated
- o. Stenosis
- p. Narrowed
- q. Failure
- r. Fainting



g



c



f



e



d



h



s



a



l



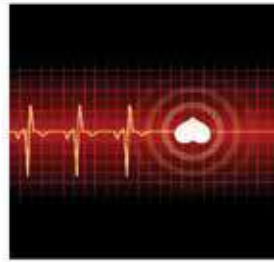
p

s. Cusps

t. Thick



k



j



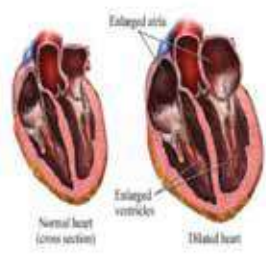
o



n

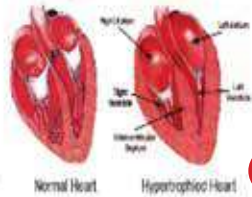


b



m

Hypertrophic Cardiomyopathy



t



q



r



i

TASK 2. Find the following words in the grid.

- a) Surgeon b) Pumps c) Chambers d) Upper
- e) Ventricles f) Ensure g) Cusps h) Leaking
- i) Smooth j) Narrowed k) Disrupt l) Heartbeat
- m) Stenosis n) Untreated o) Faulty p) Enlarged
- q) Thick r) Failure s) Fainting Procedure

S	D	P	U	M	P	S	A	T	C	E	O	A	U	H	P	A	R	F
U	I	A	N	P	O	N	G	M	H	O	L	N	P	L	R	A	I	A
R	S	D	T	H	H	X	R	E	A	H	D	E	P	U	O	N	E	U
G	G	I	R	E	A	A	A	E	M	R	I	R	E	O	C	S	J	L
E	E	A	E	I	I	L	R	T	B	E	S	E	R	U	E	S	I	T
O	V	P	A	S	E	E	A	V	E	N	T	R	I	C	L	E	S	Y
N	N	H	T	H	I	C	K	T	R	M	A	A	N	R	O	N	T	M
N	C	R	E	D	A	U	A	L	S	X	S	O	S	O	U	S	E	E
E	O	A	D	S	E	S	S	A	U	O	E	U	H	N	R	U	M	N
L	U	G	T	R	R	P	I	O	T	I	N	Y	E	X	G	R	I	L
E	G	M	I	L	T	S	M	O	O	T	H	H	A	E	N	E	Y	A
A	H	U	S	N	S	Y	H	Q	E	A	I	H	R	T	I	E	D	R
K	N	R	S	A	R	C	E	D	M	O	D	C	T	M	T	S	O	G
I	E	I	U	R	A	J	S	N	L	G	H	T	B	A	N	H	C	E
N	D	I	S	R	U	P	T	E	O	A	T	A	E	V	I	I	A	D
G	P	P	R	O	C	E	D	U	R	E	D	E	A	L	A	T	E	O
I	H	A	B	W	E	H	H	G	E	E	N	S	T	A	F	H	U	N
A	P	I	T	E	N	F	A	I	L	U	R	E	Y	C	S	I	S	O
D	R	T	E	D	E	V	C	S	T	E	N	O	S	I	S	O	N	N

TASK 4. Read about SURGERY, then answer the questions below

a. How long can this technique provide clinical improvement?

The evidence suggests that this technique is feasible and provides hemodynamic and clinical improvement for up to 2 years in patients with severe symptomatic aortic stenosis at high risk or with contraindications for surgery.

b. Who is this technique restricted to?

Today, the use of this technique should be restricted to high-risk patients or those with contraindications for surgery. However, this may be extended to lower risk patients.

c. How many approaches can TAVI be carried out?

TAVI is currently carried out using two different approaches (retrograde transfemoral and anterograde transapical), which share the same main principles.

d. What are the imaging methods that can be used to position the prosthesis at the aortic valve?

The following imaging methods can be used to position the p-rosthesis at the aortic valve:

- Fluoroscopy • Aortography • Echocardiography

e. After the procedure, how long should patients stay in intensive care for?

After the procedure, the patients should stay in intensive care for at least 24 h and be closely monitored for several days.

f. In the transfemoral approach, what should be paid close attention to?

Close attention should be payed to the vascular access.

TASK 7.- Watch video 12 about a surgery. Use the phrases in the box to complete in the blanks

- 1.(c) 2. (f) 3. (a) 4. (b) 5. (d) 6. (e)

LESSON 13: PHYSICAL EXAMINATION OF THE ABDOMEN

Before starting. Answer the following question: what do you know about the abdomen?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher

- a. Ascites
- b. Hemoperitoneum
- c. Hypotension
- d. Bowel



f



j

- e. Blood pressure
- f. Brisk
- g. Ulcers
- h. Hematoma



g



c

- i. Surgical
- j. Prompt
- k. Pale
- l. Jaundiced



b



i

- m. Pain
- n. Moist
- o. Sunken
- p. Bleeding
- q. Mass



o



l

r. Scars

s. Tender

t. Liver



t



k



m



r



q



e



n



s



a



p

*Ask your teacher for the meaning of the words you don't understand



d



h

TASK 2. Find the following words in the grid.

- a) Pale b) Jaundiced c) Pain d) Moist
- e) Sunken f) Bleeding g) Mass h) Scars
- i) Tender j) Liver k) Ascites l) Hemoperitoneum
- m) Hypotension n) Bowel o) Blood pressure p) Brisk
- q) Ulcers r) Hematoma s) Surgical t) Prompt

O	S	U	R	G	I	C	A	L	R	G	N	I	D	E	E	L	B
W	S	F	E	L	L	J	A	U	N	D	I	C	E	D	Y	J	T
S	A	S	C	I	T	E	S	P	U	L	C	E	R	S	I	N	G
R	M	L	E	Ñ	H	Y	P	O	T	E	N	S	I	O	N	R	H
H	H	P	R	T	E	I	J	N	M	W	T	E	U	Y	O	E	V
F	Y	Y	U	G	R	H	T	H	U	O	G	E	T	U	U	V	E
C	C	P	S	A	D	P	E	E	N	B	H	V	L	I	N	I	B
S	R	I	S	O	M	C	N	M	E	A	V	D	H	A	J	L	Y
S	A	U	E	O	T	S	C	A	R	S	E	U	P	O	P	T	W
D	M	Y	R	G	E	E	B	T	G	E	E	D	L	A	H	Y	C
E	B	P	P	O	Ñ	N	N	O	D	F	Y	H	I	C	I	U	H
R	R	T	D	T	L	P	S	M	I	C	W	R	P	P	E	N	B
D	I	R	O	S	Z	I	X	A	B	I	T	E	N	D	E	R	J
V	S	N	O	I	S	N	E	T	O	P	Y	L	F	Y	F	J	S
L	K	I	L	O	T	Y	U	F	H	Y	I	A	H	Y	T	G	S
E	W	B	M	M	A	T	E	M	Q	E	P	R	E	S	S	U	
H	E	M	O	P	E	R	I	T	O	N	E	U	M	U	S	C	L
I	L	O	V	E	L	I	N	S	U	N	K	E	N	K	F	S	W

TASK 4. Read about physical examination of abdomen and answer the questions

a. Why is it important to do a complete physical examination?

The importance of performing complete physical examinations goes beyond examining some device according to the patient's clinic. A complete physical examination can detect for example, a gastrointestinal stromal tumor.

b. What is the requirement to perform an adequate abdominal examination technique?

The person should be lying on their back (in supine or dorsal decubitus). However, other positions may be required such as lateral, ventral, special decubitus, as well as the standing position. The examiner must be placed on the right side.

c. What aspects are required in the examination and in the written record?

The abdominal evaluation performs a sequence of maneuvers that are inspection, auscultation, percussion and palpation

d. What is the incidence of Meckel's diverticulum according to the article?

According to report Meckel's diverticulum has an incidence of 0.6%–4%, and is the most common congenital malformation of the gastrointestinal tract.

e. What were the most important findings of Meckel's diverticulum present in the pediatric patient?

The pediatric patients present a large blood volume loss and hypotension.

TASK 7.- Watch video audio 13 about physical examination of abdomen. Use the phrases in the box to complete in the blanks

1.(b) 2. (a) 3. (d) 4. (c) 5. (f) 6. (e)

TASK 9. Reinforcement. Do the following activity

The crossword puzzle grid consists of the following pre-filled words and numbers:

- 2H**: H E M A T O M A
- 4B**: B
- 5B**: B
- 8P**: P O
- 10H**: H E M O P E R I T O N E U
- 11S**: S C A R S
- 12T**: T
- 13P**: P A I N
- 14J**: J A U N D I C E D
- 15B**: B R I S K
- 16A**: A S C I T E S
- 17L**: L I V E R
- 1P**: P
- 3M**: M
- 4S**: S
- 7U**: U L C E R S
- 9M**: M
- 6B**: B
- 8P**: P O
- 11S**: S C A R S
- 12T**: T
- 13P**: P A I N
- 14J**: J A U N D I C E D
- 15B**: B R I S K
- 16A**: A S C I T E S
- 17L**: L I V E R

LESSON 14: PULMONARY EXAMINATION

Before starting. Answer the following question: what do you know about pulmonary examination?

TASK 1. Match the words below with the pictures. Listen and repeat after your teacher.

- a. Scope
- b. Tenderness
- c. Inspection
- d. Palpation
- e. Percussion
- f. Auscultation
- g. Swelling
- h. Turgor
- i. Moistness
- j. Bulging
- k-. Sternum
- l. Pigeon Chest
- m. Thumbs
- n. Shrunken
- o.- Nipple
- p. Pneumothorax
- q. Pleural Effusion
- r. Ulnar



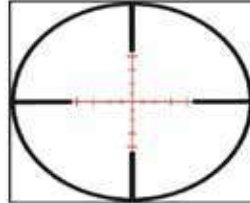
f



e



g



a



d



b



c



k



j



h

s. Emphysema

t. Neoplasm



m



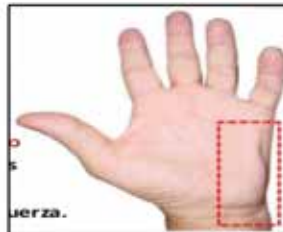
n



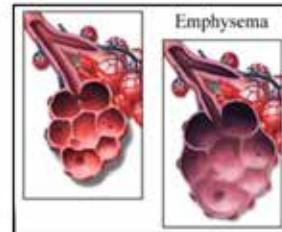
l



i



r



s



o



t



q



p

*Ask your teacher for the meaning of the words you don't understand

TASK 2. Find the following words in the grid.

- a. Scope b. Tenderness c. Inspection d. Palpation
 e. Percussion f. Auscultation g. Swelling h. Turgor
 i. Moistness j. Bulging k. Sternum l. Pigeon Chest
 m. Thumbs n. Shrunken o. Nipple p. Pneumothorax
 q. Pleural Effusion r. Ulnar s. Emphysema t. Neoplasm

S	J	C	W	J	K	T	H	U	M	B	S	X	I	J	S	U	X	G	C
M	E	O	I	Z	K	Y	Q	I	G	Z	I	C	Ñ	O	C	X	A	O	I
I	U	F	V	E	V	H	M	I	A	W	M	B	G	V	I	S	R	R	P
N	V	N	M	I	Q	F	Q	I	Ñ	A	W	N	P	S	Ñ	H	O	S	L
S	S	X	R	T	G	A	M	E	S	Y	H	P	M	E	J	R	H	D	E
P	J	Y	J	E	Y	A	L	K	C	E	L	T	M	A	V	U	T	J	U
E	R	T	W	J	T	K	G	K	I	X	H	D	B	V	M	N	O	E	R
C	P	F	P	G	G	S	D	D	I	H	S	C	U	S	S	K	M	L	A
T	Q	R	P	M	B	U	L	G	I	N	G	G	N	S	W	E	U	P	L
I	N	O	I	T	A	T	L	U	C	S	U	A	E	O	B	N	E	P	E
O	T	D	R	K	Y	L	X	X	A	J	Y	N	G	V	E	A	N	I	F
N	K	X	E	V	A	G	E	E	C	J	R	Ñ	V	J	S	G	P	N	F
S	S	E	N	T	S	I	O	M	Q	E	T	H	G	C	P	J	I	R	U
D	X	C	Z	R	A	N	L	U	D	D	Y	N	O	H	I	X	R	P	S
S	W	E	L	L	I	N	G	N	N	H	I	P	C	Y	D	L	G	V	I
W	R	R	W	Y	H	X	E	W	I	Z	E	Q	Q	P	N	S	A	I	O
F	M	T	I	K	S	T	U	R	G	O	R	L	U	O	W	V	F	O	N
N	H	Z	B	R	G	F	B	J	U	J	B	Ñ	H	C	J	X	P	V	R
D	P	E	R	C	U	S	S	I	O	N	M	S	A	L	P	O	E	N	D
U	S	Z	E	B	F	W	N	O	I	T	A	P	L	A	P	C	H	B	F

TASK 4. Read about pulmonary examination, then answer the questions below

- a) What are the stages of the pulmonary physical exam?

The pulmonary examination consists of: Inspection, Palpation, Percussion and Auscultation.

- b) What is expected at observing while palpating?

It is expected to evaluate some of the following aspects: any swelling, pain, position of trachea, chest expansion, chest symmetry and fremitus.

- c) How is the patient's breathing evaluated by palpation?

Place both hands firmly on the anterior or posterior chest wall with the thumbs meeting in the midline of the patient's chest. Ask the patient to take a deep breathe in and note the distance as both the thumbs move apart during inspiration. Then ask the patient to breathe out and note the distance during expiration. Thumbs typically separate by approximately 2 to 3 cm.

- d) What is the procedure to evaluate the position of the trachea?

The examiner should be behind the patient, palpate the anterior inferior neck just above the jugular notch by gently pressing the fingertips between the lateral wall of the trachea and the medial portion of the sternocleidomastoid muscle.

- e) What is vocal fremitus?

Tactile appreciation of vibrations transmitted to the surface of the thorax as upper airways sounds are generated by breathing or speaking is a traditional though insensitive maneuver referred to as tactile or vocal fremitus.

- f) What does an asymmetric thorax expansion imply?

-Asymmetrical expansion implies decreased ventilation to one side. This may be due to thoracic wall abnormalities, particularly those that are either associated with structural immobility or defect (thoracoplasty) or pain (rib fracture).

TASK 7.- Watch video audio 14 about pulmonary examination. Use the phrases in the box to complete in the blanks

- | | | | | | |
|--------|--------|--------|---------|---------|--------|
| 1.(g) | 2. (k) | 3. (f) | 4. (i) | 5. (l) | 6.(c) |
| 7. (a) | 8. (j) | 9. (d) | 10. (h) | 11. (b) | 12.(e) |

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Success conscious students know that if they want to get ahead in almost any business or profession, they need to speak, read, and write reasonably well in the language that is considered global: English. Hitting the target in each occupation is something all language teachers should try to do. TALKING ABOUT MEDICINE, ESP-BOOK 2 is a wonderful tool for teachers whose objective is to teach English for Specific Purposes (ESP) in the area of public health.

TALKING ABOUT MEDICINE, ESP-BOOK 2 has fourteen different lessons from which, the first nine talk about different human body organs, and the other five lessons refer to different concepts used in the public health area. The second part of the book has a full answer key that will definitely help both teachers and students ensure their answers. One important aspect of the book is that it fosters the practice of all language skills.

Each of the lessons has different sections, and they are organized in a way in which vocabulary is first presented through catchy ludic activities. Then, there are readings which make the students reason in English and practice the vocabulary previously used. Along the whole book, there are interesting tasks that students will enjoy doing while they learn and practice the vocabulary and structures needed to study, work and interact in the public health world.

Finally, TALKING ABOUT MEDICINE, ESP-BOOK 2 is a practical textbook that has no particular order as to what comes to teaching first. Teachers can easily use it picking a lesson as they need in their school program or as their students' needs command. It will be a wonderful tool for the English teacher who wants to see their students succeed in this particular medical area.

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