

Lecture 3

TERMS BY SYSTEMS

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Revision

- a) We are PhD students of the Kharkiv National Medical University.
- b) We are PhD students of Kharkiv National Medical University.
- c) We are PhD students of the Medical University of Kharkiv.
- d) We are PhD students of Kharkiv National University of Medicine.

Osteomalacia is

- a) Disease of the bones
- b) Softening of the bones
- c) Inflammation of the bone tissue
- d) Fracture of the bone

Substernal means

- a) under the breastbone
- b) over the breastbone
- c) under the collar bone
- d) over the collar bone

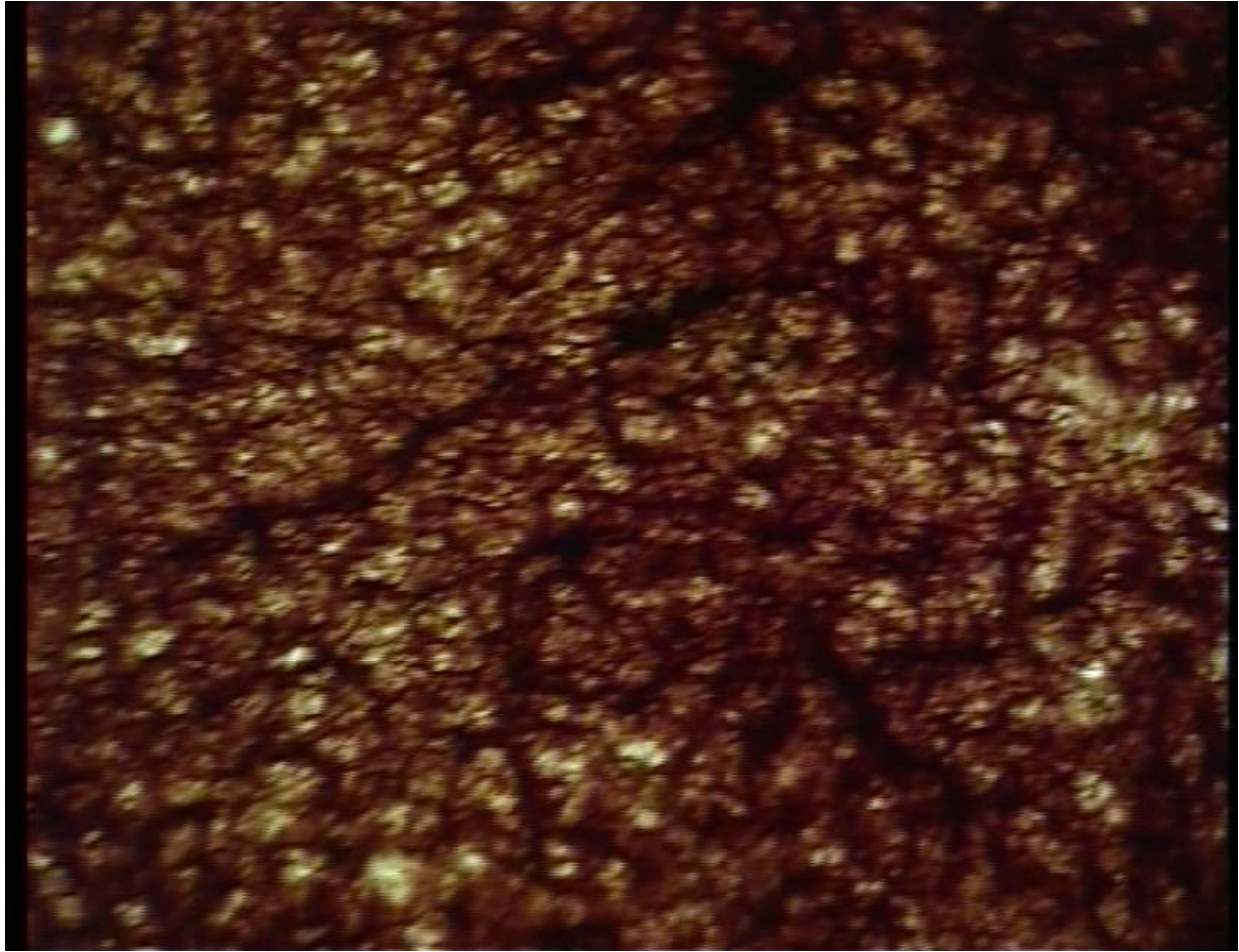
Patella is a medical word for

- a) shoulder blade
- b) collar bone
- c) knee cap
- d) lower jaw

Myology is

- a) Disease of the muscles
- b) Pain in the bones
- c) Study of muscles
- d) Study of joints





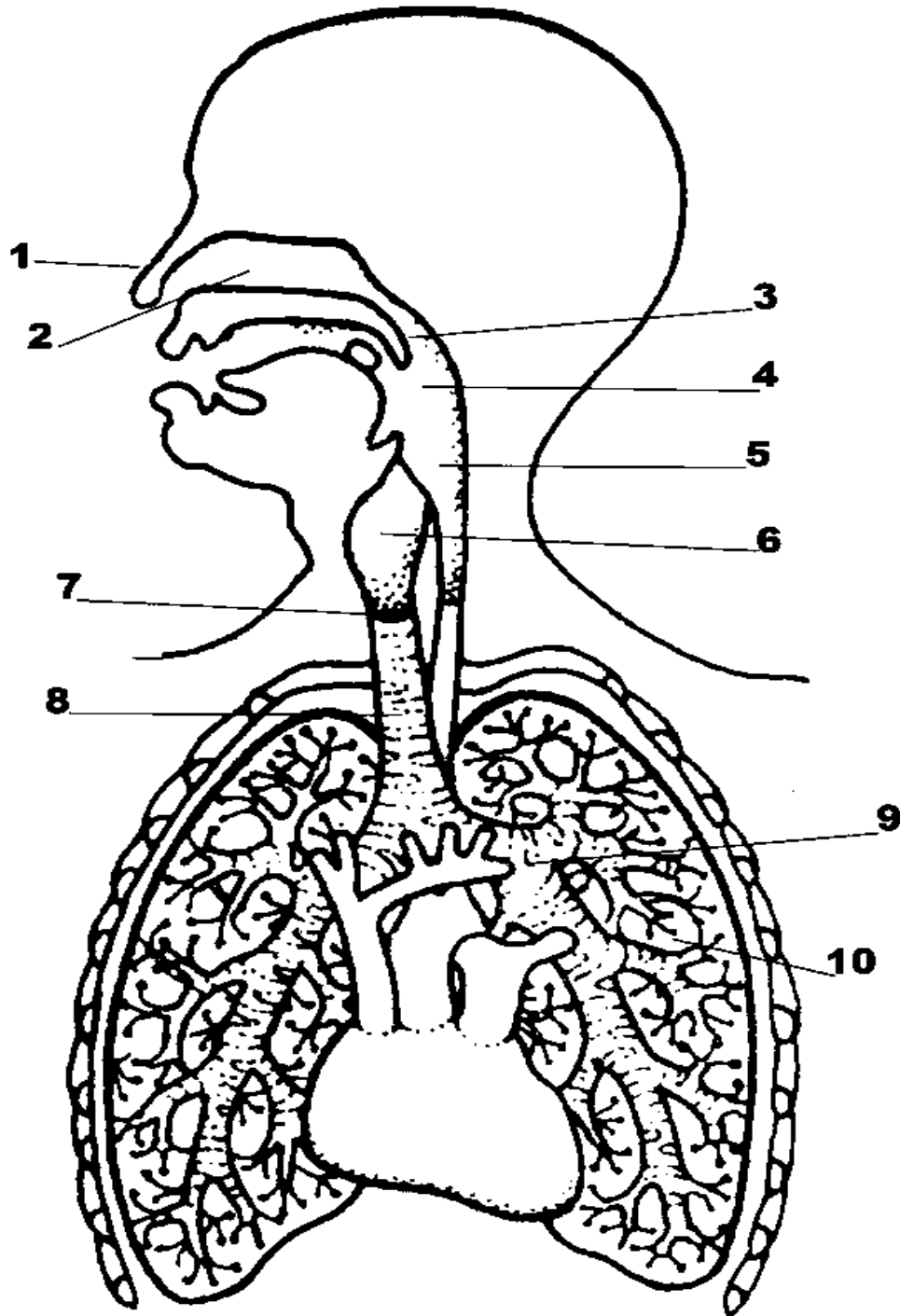
Lecture outline

- I. Organization and function of the respiratory system.
- II. Organization and function of the cardiovascular system.
- III. Combining forms, prefixes and suffixes.
- IV. Practice.

Lecture objectives:

- to revise the terms which apply to the respiratory and cardiovascular systems;
- to revise the word elements and use them to build and understand the meaning of medical words.

I. Organization and function of the respiratory system



The passageway of the air in the human organism

**Nose → Nasal cavity → Pharynx
→ Nasopharynx → Oropharynx →
Hypopharynx → Larynx → Trachea
→ Bronchi → Bronchioles →
Alveoli**

***Match the common words (a) with
their equivalents (b)***

a) throat, voice box, windpipe,
breathing, breath in, breath out

b) larynx, inhale, respiration, exhale,
trachea, pharynx.

Keys:

Throat – pharynx

Voice box – larynx

Windpipe – trachea

Breathing – respiration

Breath in – inhale

Breath out - exhale

- **Which of the structures are mentioned in the video?**
- **What other structures are presented?**
- **What abnormal conditions are shown in the video?**
- **What do the figures stand for?**

400 mln

100

Keys

- Which of the structures are mentioned in the video?

Larynx, trachea, bronchi, alveoli

- What other structures are presented?

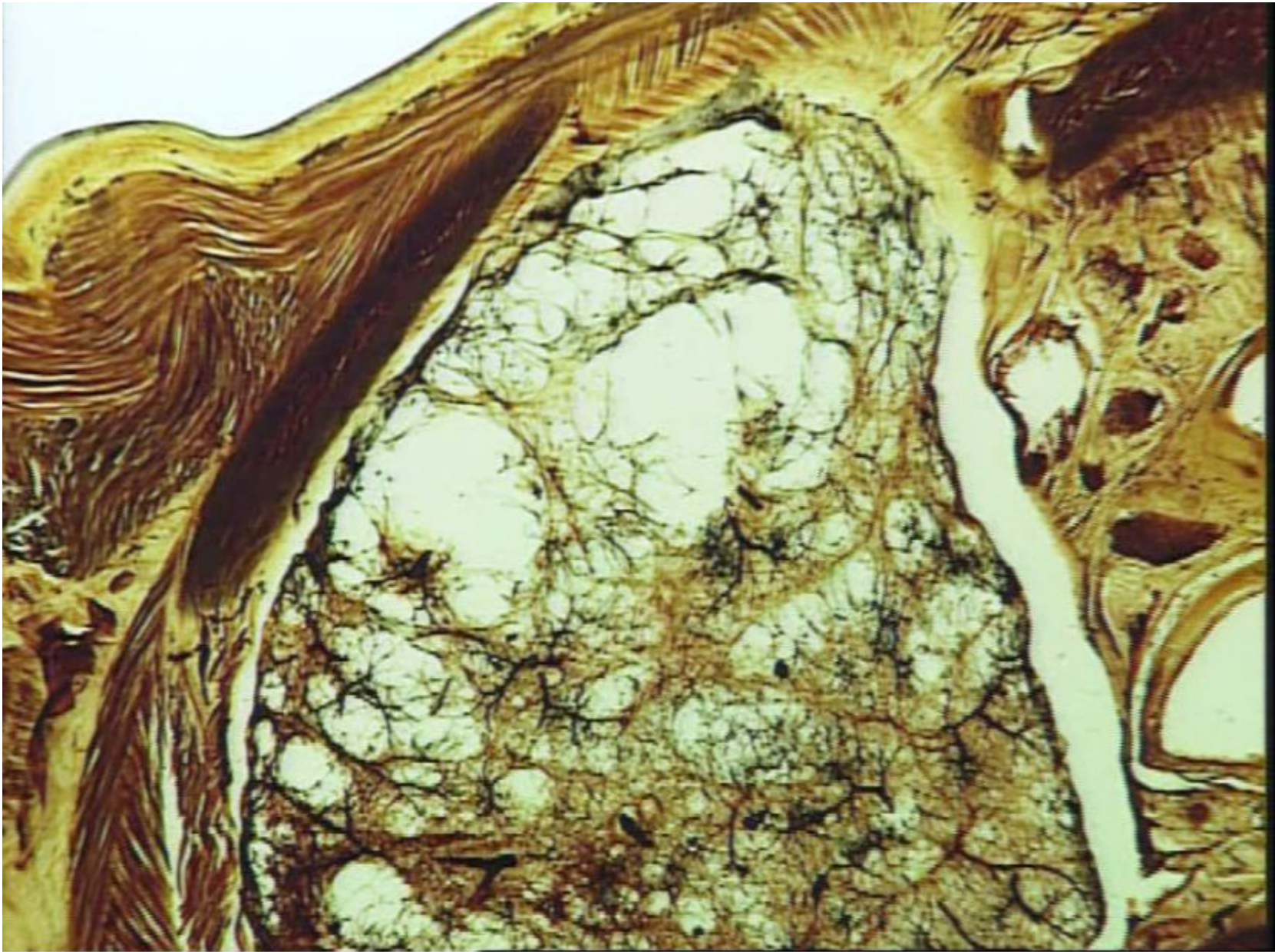
Lungs, thorax

- What abnormal conditions are shown in the video?

Deposits of tar due to smoking, destruction of alveoli walls resulting in shortness of breath and less stamina – syndrome of pulmonary emphysema

Cancerous tumor







What do the figures stand for?

400 mln - number of alveoli

100 sq. m – area of the alveoli

Combining forms, prefixes and suffixes

Nose – **naso-**, **rhino-**

Pharynx – **pharyngo-**

Mouth – **oro-**

Larynx – **laryngo-**

Trachea- **tracheo-**

Bronchus – **broncho-**

Alveolus – **alveolo-**

-ole - small

-pnea – breathing

Dys- – bad, painful

A- – no

Hypo- – low, under, decreased

Hyper- – high, over, increased

Explain the meaning of the words:

Rhinitis

Nasal

Oral

Dyspnea

Apnea

Bronchiole

Tracheitis

KEYS

Rhinitis – inflammation of the nose

Nasal – pertaining to the nose

Oral – pertaining to the mouth

Dyspnea – bad breathing

Apnea – no breathing

Bronchiole – small bronchus

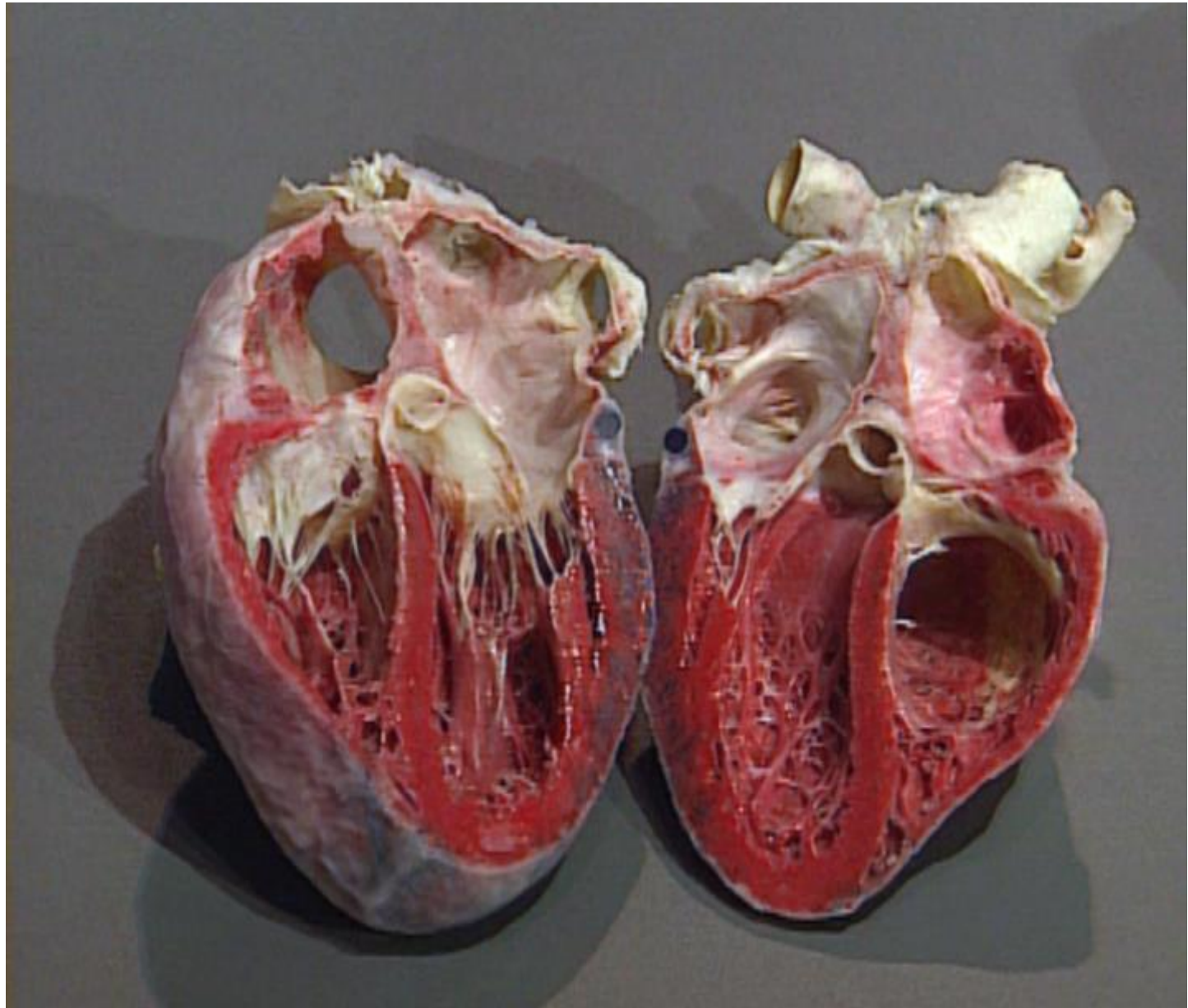
Tracheitis – inflammation of the windpipe

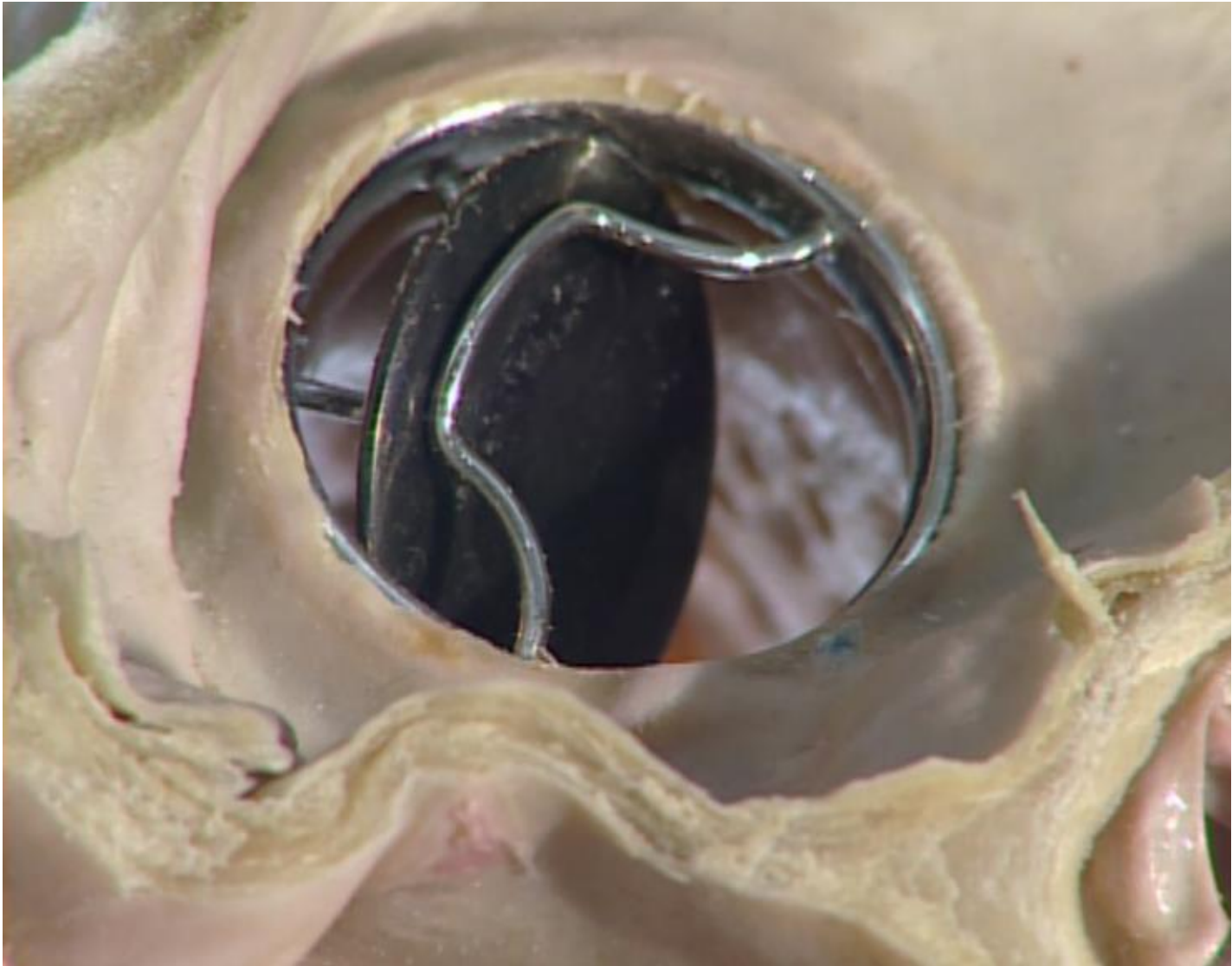
Organization and function of the cardiovascular system

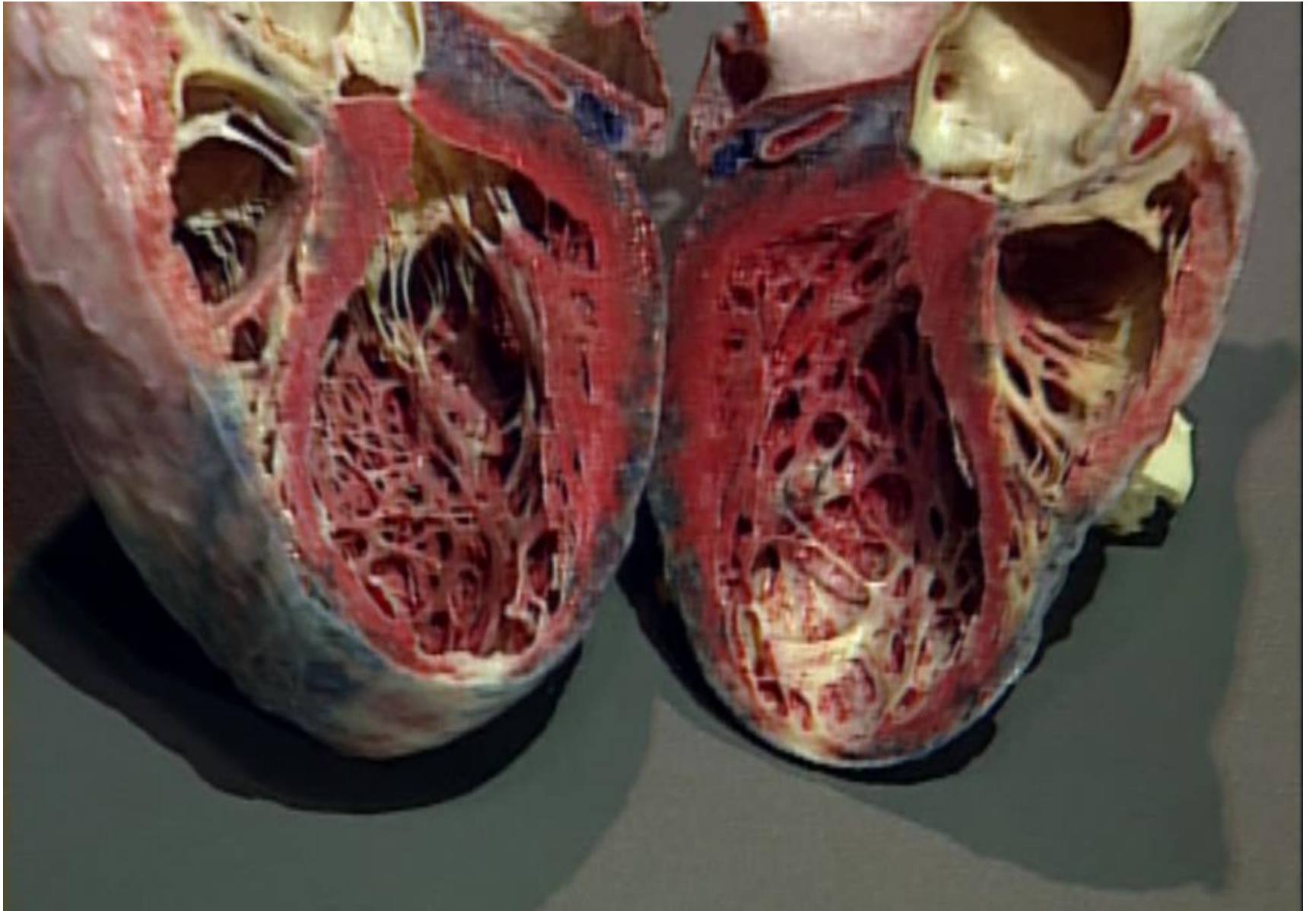
What does the heart do?

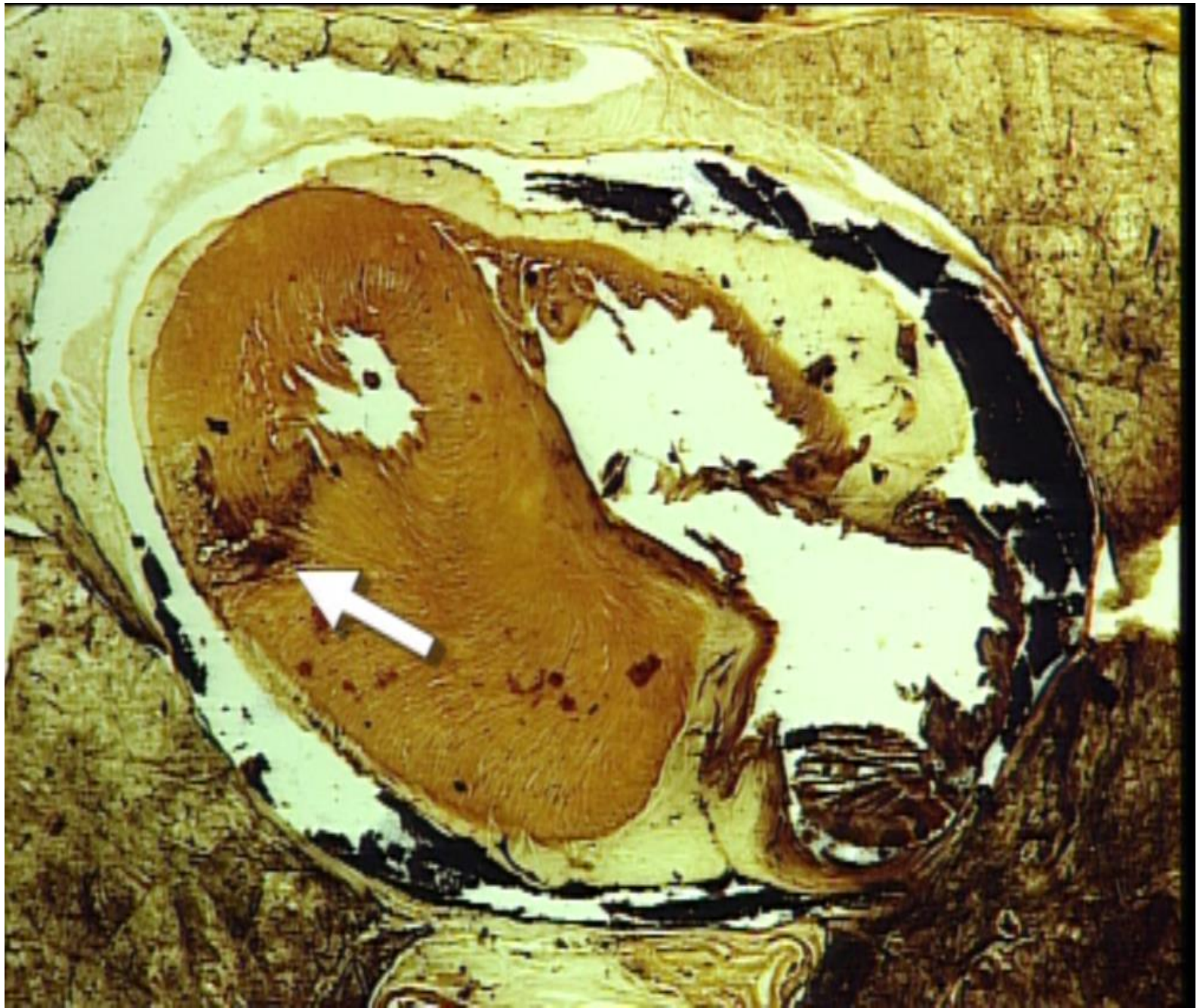
What is the function of the cardiovascular system?

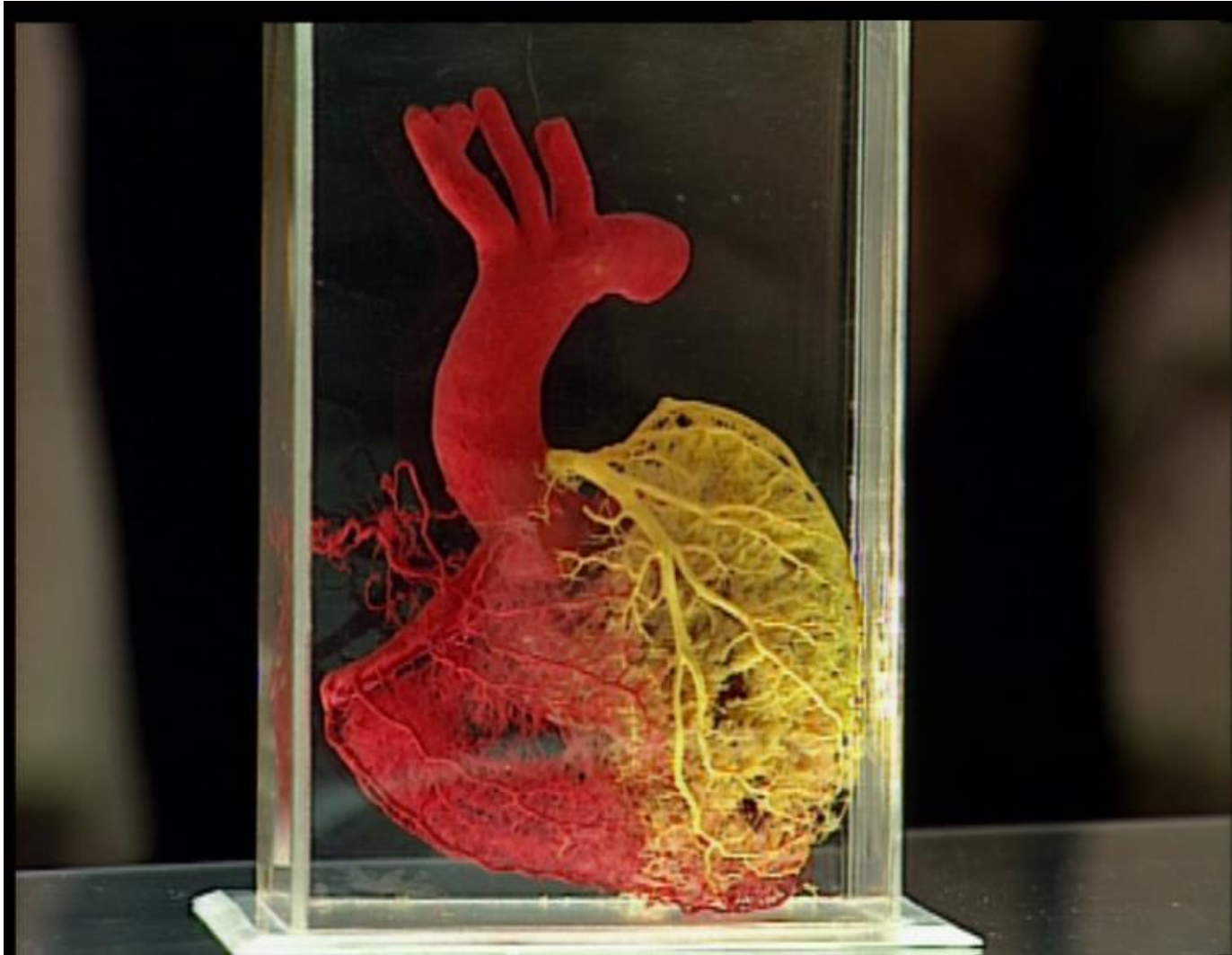
What does it consist of?



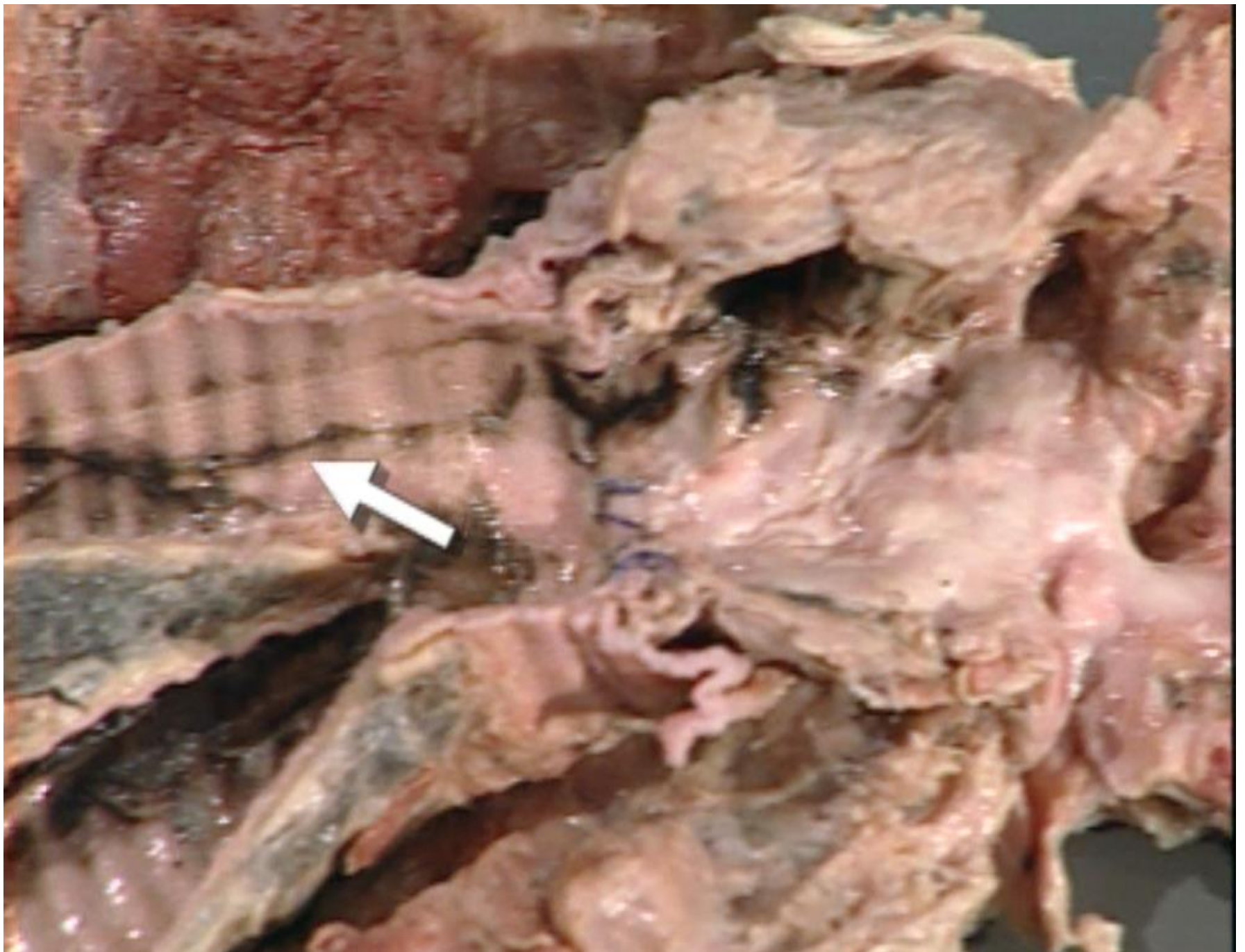














Combining forms, prefixes and suffixes

Brady - slow

Tachy - fast

-tomy – surgical cutting

Valvo - valve

Epi- above

Endo- within

Peri- surrounding

Vaso – vessel

Vasculo- vessel

Veno- vein

Phlebo – vein

Arterio – artery

Analyze the words:

Epicardium

Endocardium

Myocardium

Pericardium

Arteriotomy

Bradycardia

Tachypnea

Do word search using the definitions:

1. Surgical cutting of the valve

2. A sac formed by abnormal dilation of the weakened wall of a blood vessel

3. Inflammation of the endocardium

4. Any of the small subdivisions of an artery that form thin-walled vessels ending in capillaries

5. The force exerted by the blood on the inner walls of the arteries, being relative to the elasticity and diameter of the vessels and the force of the heartbeat

6. The muscular tissue of the heart

7. Contraction of the heart, during which blood is pumped into the aorta and the arteries that lead to the lungs

8. The dilatation of the chambers of the heart that follows each contraction, during which they refill with blood

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

Key

A	B	C	D	E	F	G	H	I	7 S	J	8 D
S	1. V	A	L	V	O	T	O	M	Y	Q	I
O	P	T	2 A	N	E	U	R	Y	S	M	A
3 E	N	D	O	C	A	R	D	I	T	I	S
A	B	C	D	F	E	R	Y	M	O	B	T
S	F	4 A	R	T	E	R	Y	O	L	E	O
E	T	5 P	R	E	S	S	U	R	E	B	L
6 M	Y	O	C	A	R	D	I	U	M	B	E

Recommended literature and sources of information:

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