

Lecture 2

TERMS BY SYSTEMS. MUSCULOSKELETAL SYSTEM. INNER ORGANS

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September 2, 2020

Lecture outline

- I. Levels of organism organization (cell, tissue, organ, system). Systems of the organism
- II. Organization of the musculoskeletal system
- III. Combining forms, prefixes and suffixes
- IV. Practice

Lecture objectives:

- to learn the terms which apply to the structural organization of the body;
- to learn new word elements and use them to build and understand the meaning of medical terms

REVISION

In the word *pericarditis*, *peri-* is:

- a) prefix
- b) root
- c) suffix
- d) combining vowel

In the word *pericarditis*, **card** is:

- a) prefix
- b) root
- c) suffix
- d) combining vowel

In the word *pericarditis*, **itis** is:

- a) prefix
- b) root
- c) suffix
- d) combining vowel

In the word *cardiovascular*, **cardi** is:

- a) prefix
- b) root
- c) suffix
- d) combining vowel

In the word *cardiovascular*, **o** is

- a) prefix
- b) root
- c) suffix
- d) combining vowel

Stomatitis is

- a) inflammation of the stomach
- b) inflammation of the oral cavity (mouth)
- c) inflammation of the liver
- d) inflammation of the brain

Cardiology is

- a) the study of the head
- b) the study of the vocal cords
- c) the study of the heart
- d) the study of the inner organs

I. Levels of organism organization.

Systems of the organism

system

organ

tissue

cell

- a collection of cells specialized to perform a particular function
- a part of the body, composed of more than one tissue, that forms a structural unit responsible for a particular function (or functions)
- a fundamental unit of every living thing
- a group of organs working together to perform complex functions

cell – cyto-, -cyte

tissue – histo-, histio-

Analyze the words

cardiocyte

hepatocyte

cytology

histology

cytologist

histologist

Keys

cardiocyte – heart cell

hepatocyte – liver cell

cytology – study of cells

histology – study of tissues

cytologist – specialist in cells

histologist – specialist in tissues

SYSTEMS OF THE ORGANISM

Digestive

Genitourinary

Respiratory

Reproductive

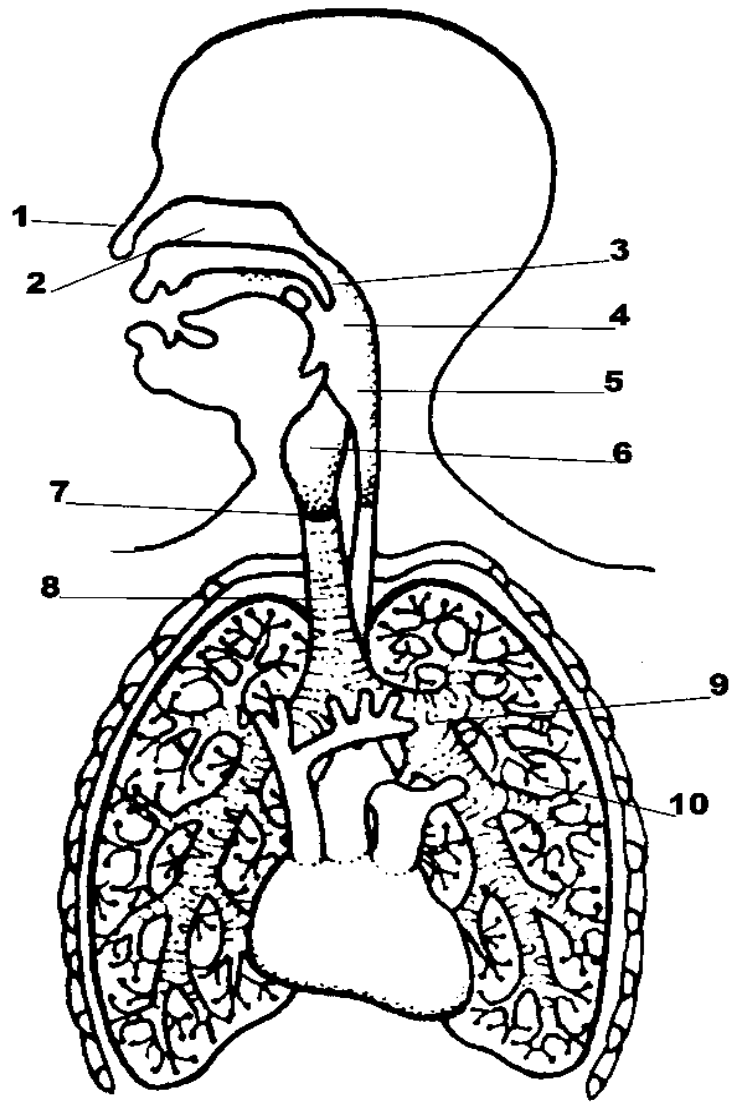
Endocrine

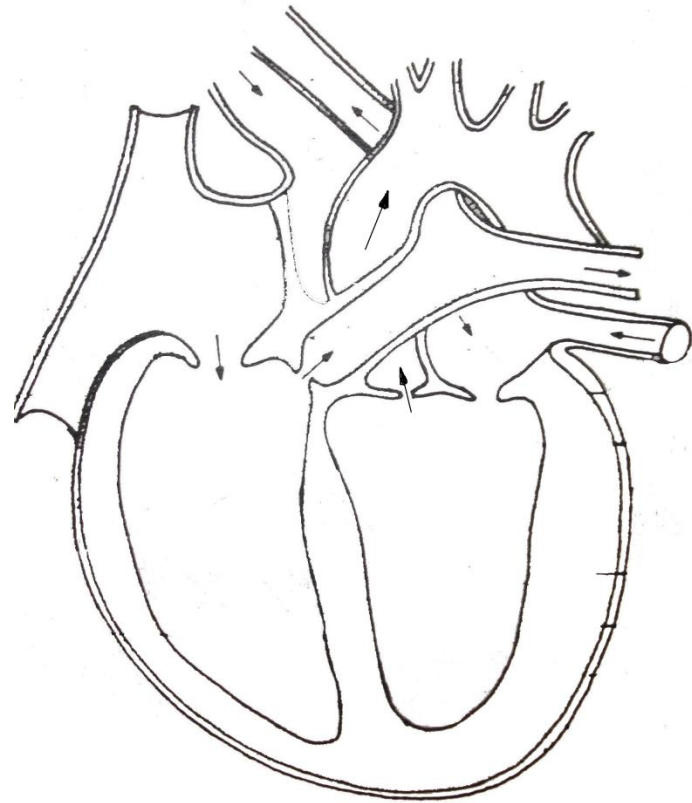
Nervous

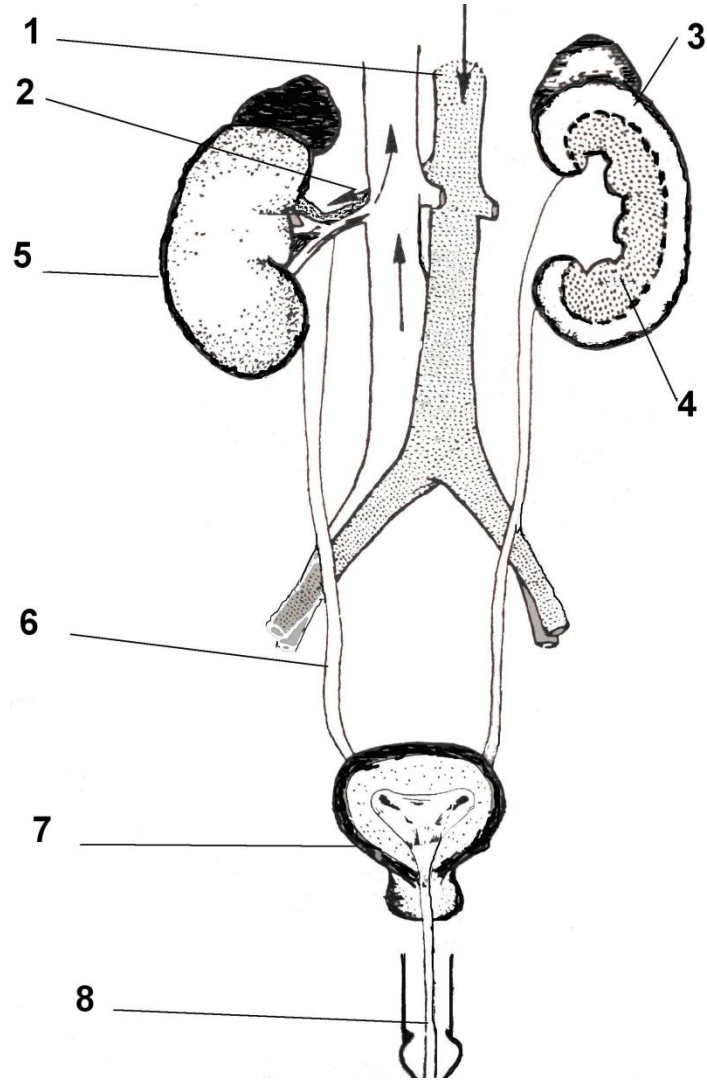
Cardiovascular

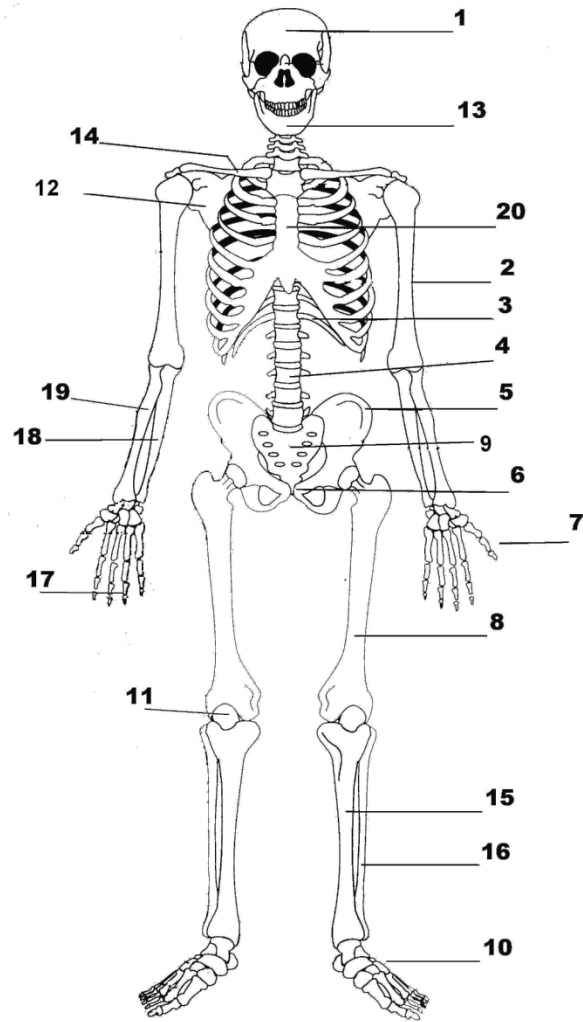
Musculoskeletal

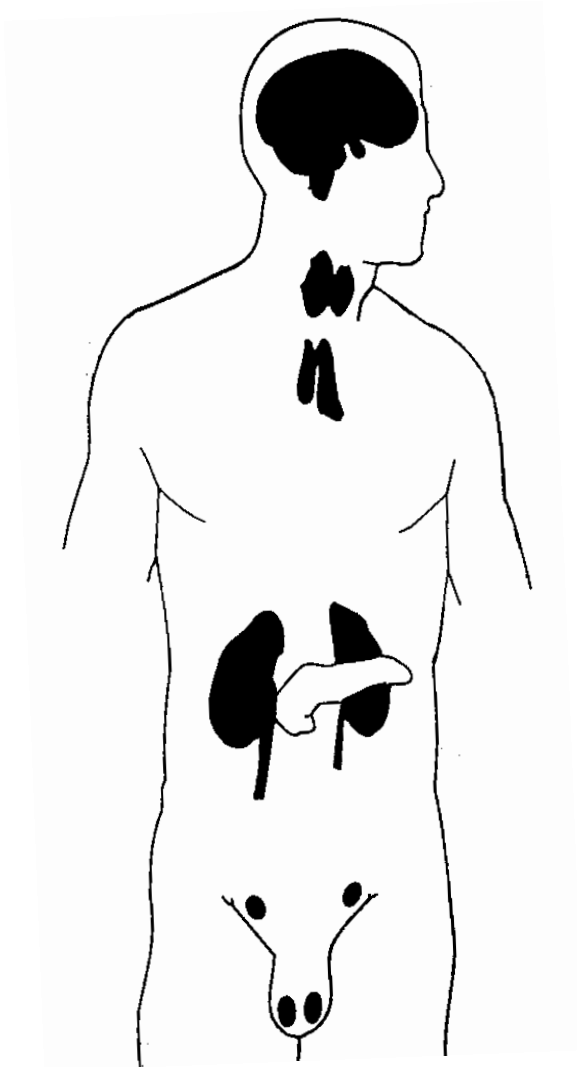
Integumentary

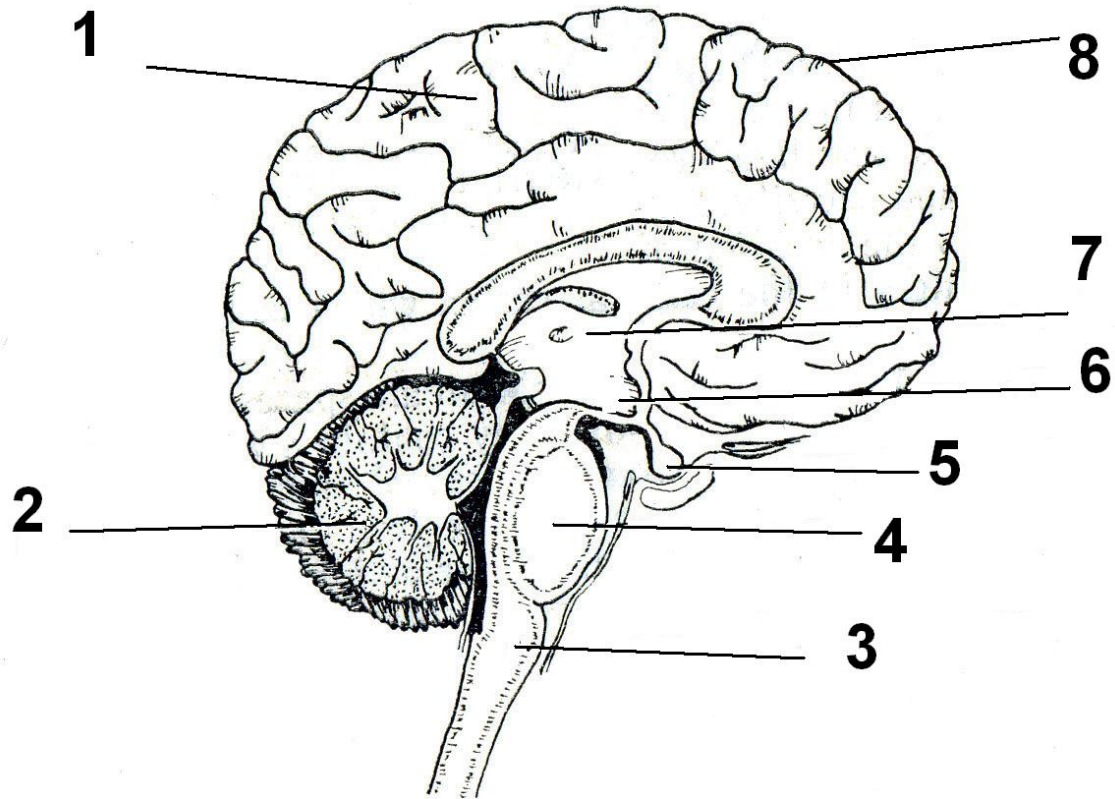


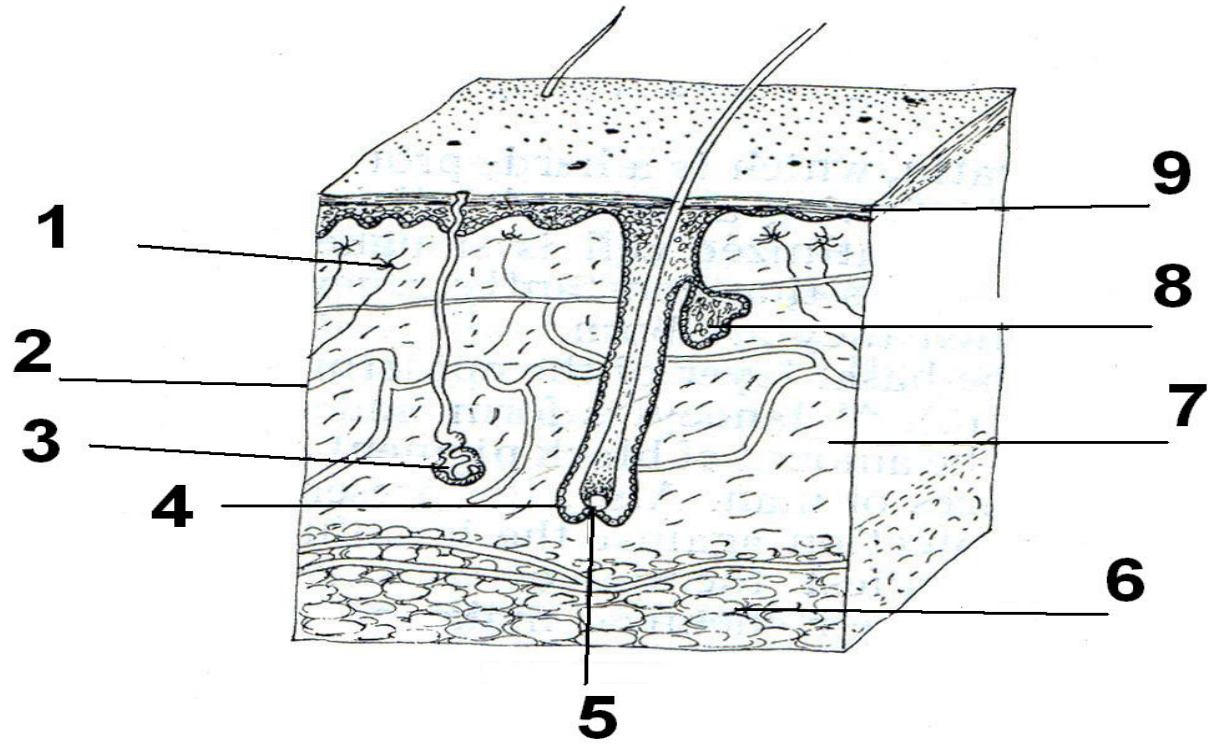


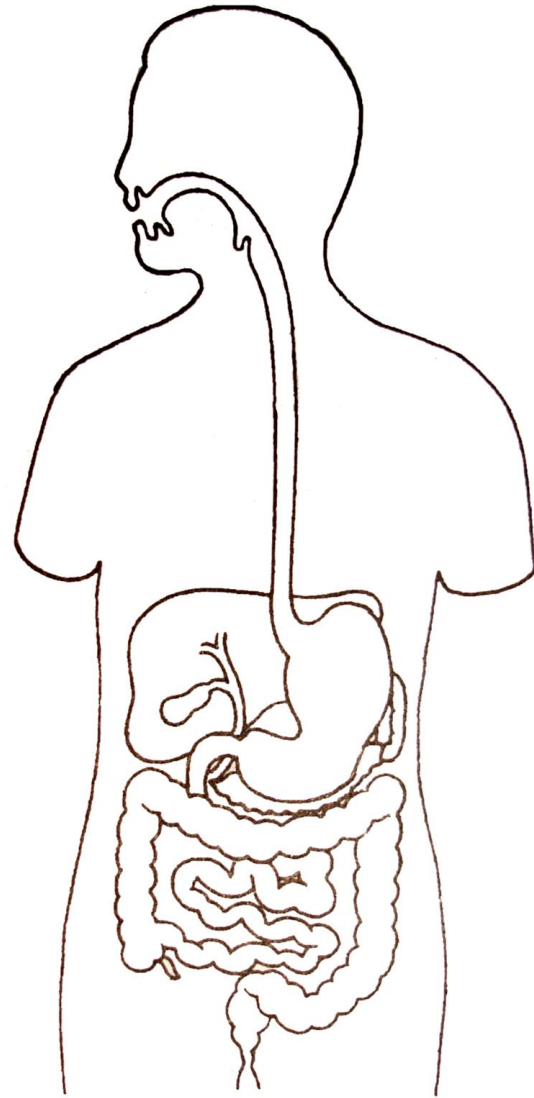










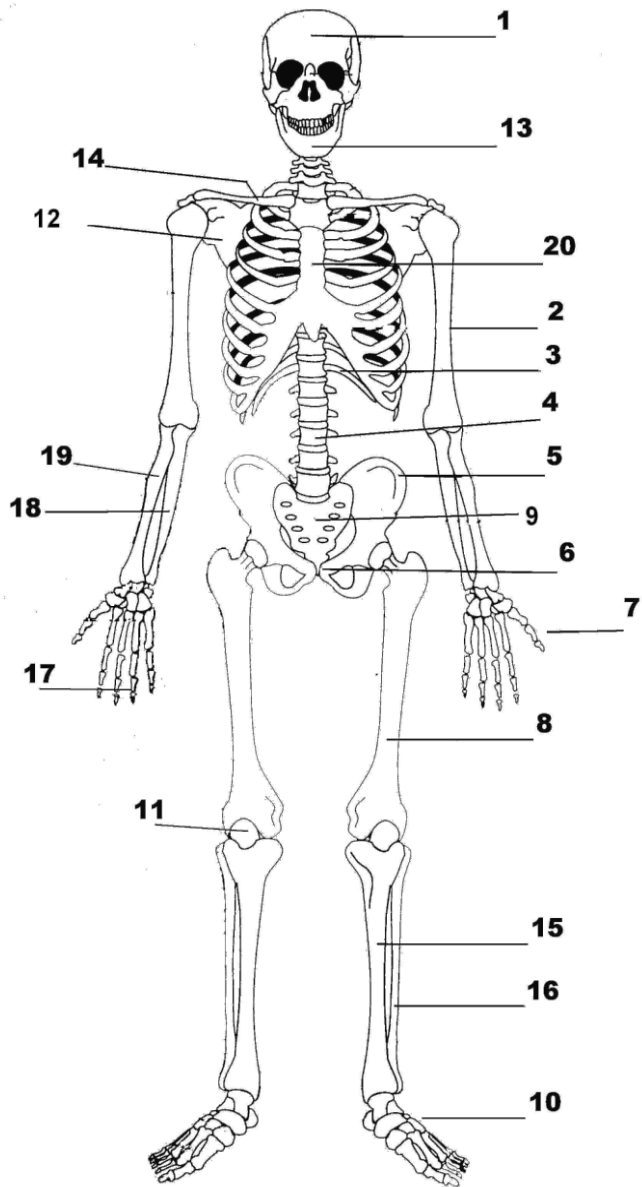


Adrenal gland, artery, bladder, bone, brain, bronchial tube, cartilage, capillary, esophagus, gallbladder, heart, intestine, ligament, mouth, joint, kidney, larynx, liver, lung, muscle, nerve, nose, ovary, pharynx, pancreas, prostate gland, skin, stomach, tendon, thyroid gland, trachea, ureter, urethra, vein.

Spine, aorta, spleen,
tongue, diaphragm,
rectum

II. Organization of the musculoskeletal system

- What is another name for the musculoskeletal system?
- How many bones are there in the human skeleton
- How many joints are there?
- What is the weight of the skeleton?



Wear of the joint – prosthesis

Fracture – immobilization with screws, wires, plates, external fixators

Deformity – no solution

III. Combining forms, prefixes and suffixes

Sub- under

Osteo- bone

Spondylo- vertebra

Arthro- joint

Ligamento- ligament

Sterno - sternum

Teno -; tendo-; tendino- tendon

Myo - myoso- muscle

-blast – immature cell

- malacia - softening

- osis – abnormal condition, disease

IV. Practice

Build medical words:

Immature bone cell

bone cell

inflammation of the bone and joint

softening of the bone

abnormal condition of the vertebra

KEYS

Immature bone cell - **osteoblast**

bone cell - **osteocyte**

inflammation of the bone and joint –
osteoarthritis

softening of the bone – **osteomalacia**

abnormal condition of the vertebra - **spondylosis**

ANALYZE THE WORDS:

Substernal

Myocardium

Spondylitis

Myositis

Arthrosis

Subclavicular

KEYS

Substernal – pertaining to under the sternum

Myocardium – muscle of the heart

Spondylitis – inflammation of the vertebra

Myositis – inflammation of the muscle

Arthrosis – abnormal condition of the joint

MATCH COMMON ENGLISH NAMES FOR BONES WITH THEIR MEDICAL EQUIVALENTS

cranium

mandible

maxilla

clavicle

sternum

femur

patella

scapular

collar bone

breastbone

thigh

kneecap

skull

lower jaw bone

upper jaw bone

shoulder blade

RECOMMENDED LITERATURE

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