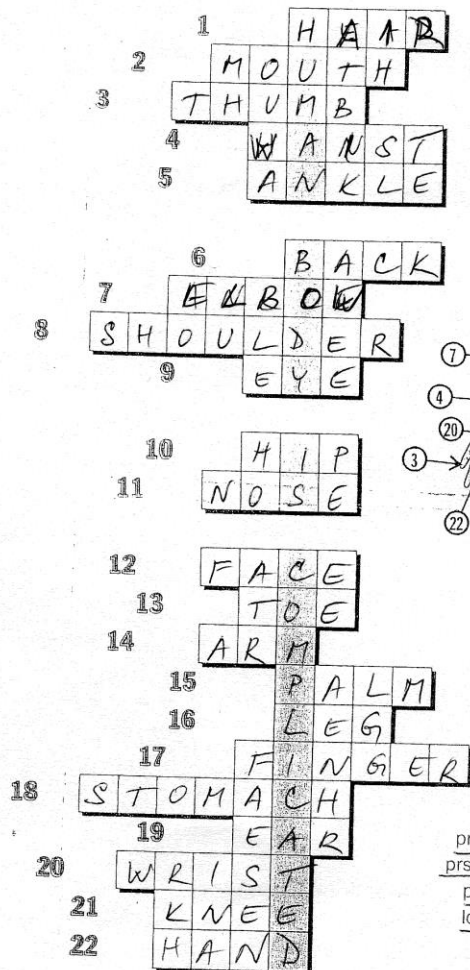
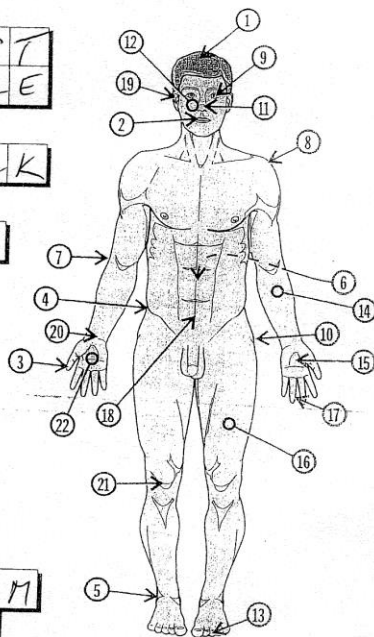


miscellaneous

CROSSWORD PUZZLE



Name correctly the parts of the body to complete the crossword puzzle.



prst na noze, paže, dlaň, noha,
prst, břicho, ucho, zápěstí, palec,
pas, kotník, vlasy, ústa, záda,
loket, rameno, oko, bok, nos,
obličej, koleno, ruka

HUMAN BODY - CARDIOVASCULAR SYSTEM (CS)

CS consists of the **heart** and the **vessels**.

The heart is a muscular organ situated in the mediastinum. It is divided into 4 chambers, 2 on the right and 2 on the left. The ^{upper} chambers are called **atria**, the lower ones **ventricles**. The function of the heart is to **pump blood** throughout the body via the vessels.

There are 3 types of **vessels**:

- 1) **Arteries** - they transport blood from the heart, the largest is **aorta**
- 2) **Capillaries** - they ^{obtain} receive blood from the arterioles
- 3) **Veins** - they carry blood back to the heart, the largest is **vena cava**

The blood has many important functions, for example:

- a) Transportation of oxygen from the lungs to the cells and carbon dioxide from the tissues to the lungs
- b) Distribution of hormones
- c) Transportation of nutrients in the body

The section of medicine dealing with blood is called **haematology**.

The blood is composed of **plasma** and **blood cells**: **erythrocytes**, **leukocytes** and **thrombocytes**. The most common diseases of blood are **anemia** and **leukemia**.

We have 4 **blood groups**: **A**, **B**, **AB** and **O**. They are important in **blood transfusion**.

The human body

Cells are the smallest parts of the body. A typical cell consists of a thick fluid called cytoplasm, which contains a nucleus and is ^{surrounded} by a plasma.

The cells are arranged into groups called ^{Hein - pleline} **tissues**.

Epithelial tissue- forms a lining in or on the ^{body} body- the respiratory tract, the alimentary tract, the skin. Epithelium protects the body's surface.

Connective tissue supports the body and holds it together.

Muscular tissue produces movement- skeletal muscles, smooth muscles, cardiac muscle.

Nervous tissue carries electrical signals.

Organ is a structure made of two or more tissues that carries out a particular range of tasks. ^{Kozsal}
(The eyes, lungs, kidneys, skin, stomach, heart)

Body system is a collection of organs that work together to perform specific tasks.

(Integumentary system, Musculoskeletal system, Nervous system, Endocrine system, Circulatory system, Immune system, Respiratory system, ^{digestive} Digestive system, Urinary system, Reproductive system, Lymphatic system)

Regions of the body

The head is the part of the body that houses the brain. It is protected by the ^{skull} skull. The face is made up of the forehead, cheeks, chin, eyes, ears, nose, mouth with teeth and tongue. The head is held by bones and muscles in **the neck**.

The trunk is the central part of the body that houses the heart, lungs, digestive system. The ^{thorax} thorax, or chest, forms the upper part of the trunk and the abdomen forms the lower part of the trunk.

An arm contains 30 bones- the upper arm, the forearm, the hand. There are many joints (the shoulder, the elbow, the wrist)

A leg contains 30 bones and it is divided into the upper leg-thigh, the lower leg -calf, shin and the foot. The joints include the hip, the knee, the ankle.

A cavity is a closed chamber inside the body. The cranial cavity contains the brain, the thoracic cavity contains the heart and lungs. The abdominal cavity contains most of the digestive system. The spinal cavity contains the spinal cord and the ^{pelvic} pelvic cavity contains some internal organs.

pelvis - panes

The cell

The smallest and most basic unit of life is called **the cell**. Cells are made of protoplasm, a watery substance that consists of proteins, carbohydrates and nucleic acids and have three parts: cytoplasm, the ~~cell membrane and the nucleus~~.

All the cells have three functions: reproduction, movement of fluid through the cell membrane and metabolism. Groups of similar cells form **tissues**: epithelium, connective tissue, muscle tissue and nerve tissue. Epithelium contains no nerve or blood vessels and its main function is protection.

Connective tissue supports and shapes the body and muscle tissues enable contractions (movements). Nerve tissue is composed of cells that transmit electrical impulses in the body, which provide communication between body parts.

A body system consists of a group of organs that form different systems as:

1. **The musculoskeletal system**, composed of the skeletal system which provide a framework for the body and protects vital organs. It consists of bones and joints and its functions are connected with the muscle system. The purpose of this system is a movement caused by contraction and extension of muscles. We distinguish between voluntary and involuntary muscles. Most of the voluntary (or transversely striped) muscles are found in the extremities, in the trunk and in the head and they are capable of rapid and complicated movements. Involuntary (or smooth) muscles provide only mechanical movement in the walls of the tracts and organs.
2. **The circulatory system** – it is the heart and a network of blood vessels: arteries, capillaries and veins.
3. **The digestive system** – the mouth, oropharynx, oesophagus, stomach, small intestine, large intestine and the anus.
4. **The respiratory system** – the nose, nasopharynx, trachea, bronchi and the lungs.
5. **The urinary system** – the kidneys, ureters, bladder and the urethra.
6. **The nervous system** – the brain, spinal cord, peripheral nerves, autonomic nerves.
7. **The endocrine system** – it consists of seven glands and its function is to produce hormones.
8. **The reproductive system** which is divided into the male's: the testes, epididymis, seminal vesicles and the prostate; and the female's: the ovaries, Fallopian tubes, uterus and the vagina.
9. **The integumentary system** which protects the body against pathogenic organisms and injury and consists of the skin, lymph channels and the lymph nodes.

The nucleus is responsible for the cell reproduction and contains 48 chromosomes important for the hereditary factors. They are made up of ribonucleic acid known as RNA and deoxyribonucleic acid, or DNA.

Organs of the body are positioned within spaces called cavities. The skull surrounds the **cranial cavity** that contains the brain. The **spinal cavity** formed by the vertebrae contains the spinal cord. The **thoracic cavity** contains the heart, bronchial tubes and the lungs. The floor of this cavity is a muscle organ called the diaphragm. Below the diaphragm there are the **abdominal cavity** which contains organs of the digestive system and next the **pelvic cavity** where we can find organs of the reproductive and urinary systems.

The human body itself consists of three major areas: the head, the trunk and the extremities.

The head consists of the cranium and the face. The cranium contains the brain and its membranes and is covered by the hair. The face is made up of the forehead, eyes, cheeks, nose, ears and the chin. The mouth has two lips and contains the tongue and the teeth.

The head and the trunk are joined together at the neck which contains the cervical vertebrae, the larynx, the pharynx and important vessels and nerves.

The trunk is made up of the vertebral column, the chest, the abdomen and the pelvis. Each vertebra has a spinal canal through which the spinal cord runs. The chest contains the oesophagus, the trachea, the heart, the lungs and the great vessels. On the chest there are two nipples and, in women, two breasts.

The upper limb is made up of the shoulder, upper arm, elbow, forearm, wrist and the hand with a thumb and four fingers.

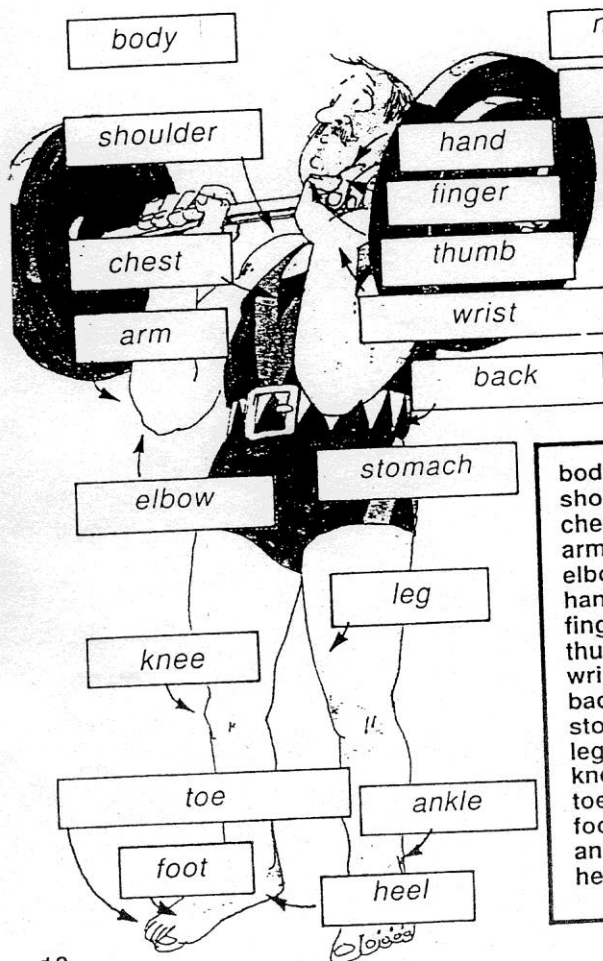
The lower limb is composed of the pelvic girdle, the hip, thigh, knee, lower leg with the calf and the shin, the ankle and the foot with five toes. Fingers and toes are called the digits.

The skeleton of an adult consists of more than 200 bones of various shapes and sizes. They are made up of hard osseous tissue and are described as long, short, flat or irregular. The point where two bones meet is a joint which contains an oily substance called synovia. The bones are held together by the ligaments.

Tělo

head
hair
face
skin
eye
cheek
nose
ear
mouth
tooth
tongue
lip
neck
chin

hlava
vlasy
obličej
kůže
oko
tvář
nos
ucho
ústa
zub
jazyk
ret
krk
brada



body
shoulder
chest
arm
elbow
hand
finger
thumb
wrist
back
stomach
leg
knee
toe
foot
ankle
heel

tělo
rameno
hrud'
paže, ruka
loket
ruka
prst
palec
zápěstí
záda
žaludek, břicho
noha (celá)
koleno
prst (u nohy)
noha
kotník
pata