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STOMACH STRUCTURE AND ITS CHANGES DEPENDING ON AGE

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ABSTRACT

This article describes specific changes in the stomach and its structure with age, as well as the structure of the stomach (mucosa, submucosa, muscle, stomach cavity, esophagus (esophagus), pylorus (pylorus)) and methods of identifying various diseases and pathologies occurring in it are discussed.

Key words

Cardia, stomach, stomach structure, age periods, pathology, esophagus.

Enter. Meda is one of the main organs of the digestive system and carries out chemical decomposition of food. It is mainly composed of muscle tissue, gastric juice secreting glands and a number of other cell types. The food passes through the mechanical movements of the stomach wall and is mixed with gastric juice.

The stomach consists of the following main parts and layers:

- ✓ Floors. There are three main layers of the stomach wall: mucosa (inner layer), submucosa (middle layer) and muscle (outer layer);
- ✓ Stomach cavity. The main space used in the process of digestion;
- ✓ Esophagus. The part of food entering the stomach;
- ✓ Pylor (pylorus). The part that separates the stomach and duodenum;
- ✓ Other parts and functions of the stomach. Cardia (the part connecting the stomach with the esophagus), fundus (the upper part of the stomach), antrum (the part of the pylorus), etc.

In our article, we will clarify about the changes of the stomach over the years at each age, as well as the methods of detection and diagnosis of diseases that occur in it.

Materials and methods. The article used scientific research methods such as analysis of existing scientific literature, comparative analysis, forecasting, mathematical statistical analysis.

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Results and discussions: In science, the anatomical and physiological characteristics of the stomach organ, as well as how they change in different age periods of a person, are observed []. The stomach consists of the following main parts and layers:

- Floors. The stomach wall has three main layers: mucosa (inner layer), submucosa, and muscle (outer layer).
- Stomach cavity. The main space used in the digestion process.
- Esophagus. The entrance of food to the stomach.
- Pylorus (pylorus). The part that separates the stomach from the duodenum.
- Other parts and functions of the stomach. Cardia (the part that connects the stomach with the esophagus), fundus (the upper part of the stomach), antrum (the part of the pylorus), etc.

Age-related changes in the stomach are manifested at different levels. For example:

- In childhood. Stomach is relatively small and adapted mainly for digesting dairy products. As the variety of food increases, so does the stomach.
- Adolescence and young adults. The size of the stomach and its digestive capacity will increase. HCl secretion and pepsinogen production increase, which helps in protein breakdown.
- Aging period. In old age, there are changes such as a decrease in gastric secretion, thinning of the mucous membrane, and a decrease in the function of gastric motility. This can reduce the digestive capacity of the stomach.

Separation of gastric juice. In adults, 2.0-2.5 liters of gastric juice is secreted per day. Gastric juice has an acidic environment (pH 1.5-1.8). It contains 99% water and 1% dry organic and inorganic matter. The organic matter of sap mainly consists of various enzymes.

The above-mentioned include enzymes that break down liquid, protein and other macromolecules, as well as acid (Chinese hydrochloric acid) and other substances (Table 1).

Table 1. Information about hormones in the gastric mucosa [2]

Hormone secreting cells	Hormone	Physiologic effects
EC-cells	Serotonin	Stimulates movement and secretory activity of the stomach and intestines.
	Melatonin	Determines the motility and periodicity of the digestive tract
ESL-	Histamine	It increases the secretion of NS1 by parietal cells,

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cells		affects the motility of the digestive tract and the condition of vessels
P-cells	Bombesin	Stimulates HCl secretion, increases bile secretion and gallbladder motility
G-cells	Gastrin Enkephalin	It strengthens the secretory and motor function of the stomach. Endogenous morphine relieves pain
D-cells	Somatostatin	Inhibits the exocrine and endocrine functions of the digestive tract.
Dl-cells	VIP (vasointestinal peptide)	Antagonist of somatostatin due to its effect on the pancreas: stimulates its exocrine and endocrine activity, expands blood vessels and lowers pressure.

Depending on the age of a person, the structure of the stomach and its functions change (Table 2)

Table 2. The structure of the stomach and its functions change depending on the age of a person [3]

No.	Age periods	Changes
1.	Childhood	Babies and young children's stomachs often produce more ·ochloric acid than adults, which makes their digestion more e. However, babies' stomachs are small, so they need to eat l meals often.
2.	Adolescence	Scaling occurs during this period, and the stomach also ·s in physical size. Getting older also helps to improve stive processes, because the walls of the stomach become ıger and the secretory activity of the glands improves.
3.	Middle age period	By middle age, stomach function becomes stable. ·ever, bad eating habits, stress and other negative habits can to inflammation of the stomach lining or the development ɔmach ulcers.
4.	Old age	As we age, the amount of gastric secretion decreases, :le tone and muscle strength begin to decrease, which es food to remain in the stomach for a longer time. In tion, the protective properties of the mucous membrane of stomach decrease, which increases the risk of developing ıach ulcers and other stomach diseases.

The size of the stomach. The exact capacity and volume of the stomach cannot be stated in detail, as it can expand and contract according to the amount of food and liquid entering the stomach [4]. According to generally determined data, its volume changes with age (diagram 1):

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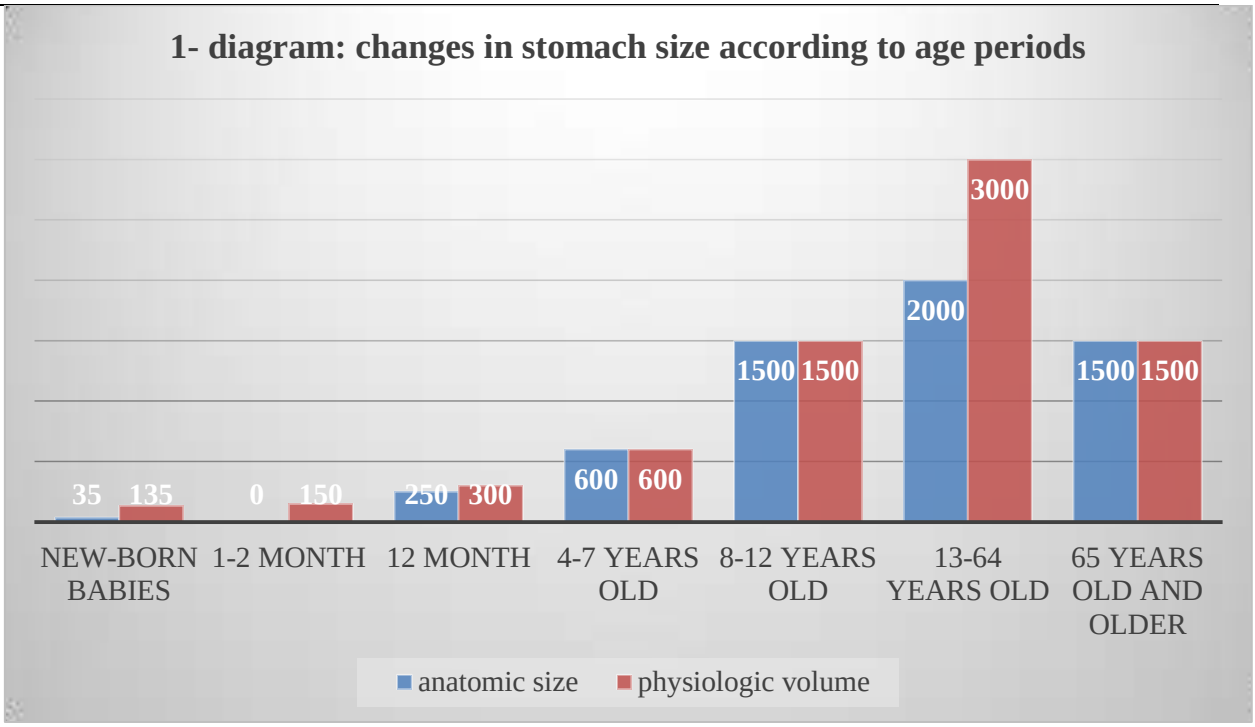

The study of these changes is carried out using the following methods:

- Endoscopy. A method of examining the inside of the stomach through a camera.

- Biopsy. Taking a sample for microscopic study of the structure of the stomach.

- PH-metry. Measuring the acidity of gastric juice.

- Manometry. The method of measuring the pressure of the stomach and herbal medicine.

- X-ray and computer tomography (CT). Describe the structure of the stomach and surrounding organs.

- Ultrasonography (sonography). Examination of the stomach wall and its changes [5].With the help of the considered methods, it will be possible to diagnose age-related changes in the structure of the stomach and make an accurate diagnosis, as well as determine treatment strategies when the disease is known.

Conclusion: Regular and balanced diet, drinking enough water, refraining from harmful habits and regular physical exercise are important to keep the stomach healthy at any age. It is also recommended to get medical advice and regular check-ups to prevent or treat age-related stomach problems.

A person should lead a healthy lifestyle - refrain from smoking, drinking alcohol, and follow the rules of healthy eating. In case of complaints about the stomach, it is necessary to contact the doctor immediately, the most dangerous complications of the disease are bleeding and rupture of the stomach wall. In this case, if emergency surgery is not performed, the probability of death is 99%. The

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disease is characterized by frequent recurrences in spring and autumn. The cause of peptic ulcer is usually stress that strengthens the human nervous system, which in turn causes spasms of the muscles and blood vessels of the gastrointestinal tract. As a result, the blood supply to the stomach is disrupted, and gastric juice begins to have a negative effect on the mucous membrane, which leads to the appearance of gastric ulcers.

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