



## Peculiarities of the Child's Body and Pediatric Surgery

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**Annotation.** The article describes the concept of pediatric surgery, its features, the distinguishing features of a child's body from an adult's, and also describes operations according to the urgency of their implementation. Based on the written article, a conclusion is made on the basis of the facts studied.

**Keywords:** Surgery, Medicine, Operative Method, Pediatric Body, Surgery, Preoperative Preparation, Child, Urgency Surgery, Omphalitis.

Global changes in the health sector around the world first and foremost make it imperative that we manage and direct the health of every population. To date, a number of measures are being taken in our country to ensure a healthy lifestyle for people. A number of regulatory legal acts have been adopted and approved, one of them is the Decree of the President of the Republic of Uzbekistan, dated 11.09.2023 No. UP-158 Strategy and "Uzbekistan - 2030" in accordance with Appendix No. 1, developed on the basis of the experience gained in the process of implementing the Development Strategy of New Uzbekistan and the results of public discussion.

It is taken into account that the Strategy "Uzbekistan – 2030" reflects the following main ideas:

- Joining the ranks of upper-middle-income countries through sustainable economic development;
- creation of a system of education, medicine and social protection that fully meets the needs of the people and international standards;
- creation of favorable environmental conditions for the population;
- building a just and modern state that serves the people;
- guaranteed sovereignty and security of the country.<sup>1</sup>

As can be seen from the above-mentioned goals, the second main goal is medicine and social protection, which are fully in line with the needs of the people and international standards.

Pediatric surgery is important in the field of healthcare. To understand it, it is necessary to reveal the features of the child's body and the anatomy of the child's body.

<sup>1</sup> <https://lex.uz/ru/docs/6600404>



In this article, we will take a closer look at the peculiarities of children's surgery, as well as the peculiarities of the child's body as a whole.

**Pediatric surgery** is a branch of surgery focused on the diagnosis and treatment of congenital and postnatal pathologies and malformations in children, as well as acquired diseases and various injuries that require surgical intervention or correction.<sup>2</sup>

In order to understand the anatomy of the child's body in detail, let's look at some Internet sources and books on the description of pathologies of the internal organs of the child.

A child cannot be called a "reduced variation of an adult." All diseases in the child's body proceed somewhat differently, which is associated with the continuous growth of the body and the constant development of organs. Moreover, some pathologies can occur only in the first years of life. Therefore, preparation for surgery in children has a number of features.

When detecting pathologies of internal organs and prescribing surgery, the pediatric surgeon takes into account several factors:

- ✓ the age of the child;
- ✓ heredity;
- ✓ Health;
- ✓ Conditions of development.

Sometimes it is not possible to perform surgery immediately after diagnosis. This is due to the fact that some types of surgeries can only be performed at a certain age. However, in most cases, a planned intervention is scheduled for the coming weeks or months.<sup>3</sup>

The anatomical and physiological features of the child's body sometimes cause diseases that occur only in children. These include omphalitis (inflammation of the tissues in the navel) and a special form of phlegmon called necrotizing phlegmon of the newborn. In newborns and infants, temporary dysfunctions of individual organs or systems are of great importance. Such conditions, or syndromes, clinically sometimes resemble severe malformations that require emergency surgery, but in fact tend to self-destruct and are relatively easy to respond to conservative therapy. A typical example would be functional intestinal dyskinesia, pyloric spasm, gaping (chalasia) or spasm (achalasia) gastric cardiac sphincter, seen mainly in premature infants and clinically manifested by vomiting and other signs of obstruction of the digestive tract (tubes). Surgical intervention in these cases is unjustified and ineffective, and short-term conservative treatment aimed at "maturing" the child (placing the child in an incubator, prescribing hormonal drugs, vitamin therapy, etc.) has a favorable effect. Thus, the pediatric surgeon has to face additional difficulties in making a differential diagnosis between organic lesions and functional disorders.<sup>4</sup>

Interms of urgency, the following types of operations are distinguished: **emergency, planned and urgent**.

**Emergency surgeries.** Emergency surgeries are operations that are performed almost immediately after diagnosis, since their delay of several hours or even minutes directly threatens the patient's life or dramatically worsens the prognosis.

The peculiarity of emergency surgeries is that the existing threat to the patient's life sometimes does not allow for a full examination and full preparation. The purpose of emergency surgery is primarily to save the patient's life at the present time, but it does not necessarily have to lead to a complete recovery of the patient.

<sup>2</sup> <https://klinikarassvet.ru/hirurgiya/detskaya-khirurgiya/>

<sup>3</sup> [https://kontraktm.ru/useful\\_info/planovaya\\_detskaya\\_khirurgiya\\_chno\\_eto](https://kontraktm.ru/useful_info/planovaya_detskaya_khirurgiya_chno_eto)

<sup>4</sup> F.Sh.Mavlyanov. Training module. Introduction to Pediatric Surgery Medicine 2023.



The main indications for emergency surgery are, first of all, bleeding of any etiology, asphyxia, the presence of an acute inflammatory process in the abdominal cavity (acute appendicitis, acute cholecystitis, acute pancreatitis, perforated gastric ulcer, strangulated hernia, acute intestinal obstruction). The indication for emergency surgery is all types of acute surgical infection (abscess, phlegmon, gangrene, etc.), which is also associated with the progression of intoxication in the presence of an unsanitized purulent focus, with the risk of sepsis and other complications.

**Elective surgeries.** Elective surgeries are operations on which the outcome of treatment practically does not depend on the time of performance. Before such interventions, the patient undergoes a complete examination, the operation is performed against the most favorable background in the absence of contraindications from other organs and systems, and in the presence of concomitant diseases after reaching the stage of remission as a result of appropriate preoperative preparation. Indications for elective surgeries may be such chronic diseases as: cholelithiasis, hernia, pancreatitis, varicose veins, complicated gastric and duodenal ulcer and others.

**Urgent surgeries.** Urgent surgeries occupy an intermediate position between emergency and planned ones. In terms of surgical attributes, they are closer to planned ones, since they are performed after an adequate examination and the necessary preoperative preparation, they are performed by specialists in this field.<sup>5</sup>

Before the operation, the performance of the patient's organs is assessed, the medical record is studied for the presence of diseases that can complicate surgical treatment, the indications for the operation are specified, and the patient's tendency to allergies to certain drugs is established. If pathologies are detected that interfere with the success of the operation, all the necessary preliminary therapy is carried out.

Mandatory **preoperative preparation includes** measurement of the patient's height and weight, blood pressure indicators, laboratory tests of blood, urine, and sometimes feces. The blood group and Rh affiliation are specified. According to the indications, a number of instrumental tests are prescribed. If necessary, measures are taken to improve the condition of the cardiovascular system.

On the day of the operation, the patient takes hygienic procedures on his own or with the help of the medical staff. Intestinal cleansing is carried out, if necessary, premedication.

**The preoperative preparation plan is** developed taking into account the urgency of the operation. If the surgical treatment is planned, the patient is subject to a thorough medical examination, which can take from one to several days. In case of emergency surgery, when the time for preoperative preparation is limited, only standard anesthesia and blood group and Rh factor tests are performed. Other measures within the framework of preoperative preparation are subject to circumstances.<sup>6</sup>

Based on the above explanations, the following conclusions and conclusions can be drawn:

Firstly, pediatric surgery is a branch of medicine that deals with surgical methods of treatment.

Secondly, it is never easy to decide to undergo surgery, for the patient and his relatives it is often a great stress that they will have to go through. Not every adult can dare to do this, and even more so a child.

Thirdly, the child's organism is beautiful and multifaceted in its own way, it cannot be said that the child's organism is the same as the adult's. It has its own features and differences. A child's body differs from an adult's primarily in its anatomical structure, as well as in its physiological structure.

Fourthly, it should also be mentioned that psychologically children are less stable than adults and easily succumb to external stimuli. Therefore, every detail is important during surgery.

<sup>5</sup> Mavlyanov. F.S., Mavlyanov.Sh.Kh. Introduction to the medical profession. Care for children with surgical diseases. Tutorial 2021.

<sup>6</sup> <https://dobromed.ru/methods/predoperacionnaya-podgotovka.html>



Fifthly, the difficulty of pediatric surgery lies in the fact that you need to build a trusting relationship between the doctor and the little patient, try to tell the truth about your actions in a gentle way. These are the characteristic features of pediatric surgery.

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