

## SINUSITIS DURING PREGNANCY. CLINIC, SYMPTOMS, DIAGNOSTICS AND MODERN TREATMENT METHODS

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<https://doi.org/10.5281/zenodo.14901830>

**Abstract.** *Pregnancy is the most exciting and responsible period in a woman's life. Now she is responsible not only for her health, but also for the health of the baby. All the strength and resources of the body of the expectant mother are thrown into ensuring that the fetus develops correctly, the pregnancy proceeds without complications, and a healthy child is born. Therefore, the woman's immunity is under enormous strain during this period. You cannot get sick. After all, any infection can cause complications during pregnancy and negatively affect the fetus.*

*Unfortunately, you cannot protect yourself from all diseases. One of the diseases that a woman may encounter during pregnancy is sinusitis (maxillary sinusitis, or rhinosinusitis).*

*Sinusitis during pregnancy is very dangerous. Therefore, the treatment of sinusitis during pregnancy should be immediate and correct.*

**Keywords:** *an increase in body temperature up to 38°C, headaches, purulent discharge from the nasal cavity, loss of smell or its deterioration; swelling of the eyelid on the side of the affected sinus, loss of appetite, rapid fatigue.*

## СИНУСИТ ВО ВРЕМЯ БЕРЕМЕННОСТИ. КЛИНИКА, СИМПТОМЫ, ДИАГНОСТИКА И СОВРЕМЕННЫЕ МЕТОДЫ ЛЕЧЕНИЯ

**Аннотация.** *Беременность — самый волнительный и ответственный период в жизни женщины. Теперь она отвечает не только за свое здоровье, но и за здоровье малыша. Все силы и ресурсы организма будущей мамы брошены на то, чтобы плод развивался правильно, беременность протекала без осложнений, и родился здоровый ребенок. Поэтому иммунитет женщины в этот период испытывает колоссальную нагрузку. Болеть нельзя. Ведь любая инфекция может вызвать осложнения во время беременности и негативно повлиять на плод. К сожалению, от всех болезней уберечься нельзя. Одно из заболеваний, с которым может столкнуться женщина во время беременности — это синусит (гайморит, или риносинусит). Синусит во время беременности очень опасен. Поэтому лечение синусита во время беременности должно быть незамедлительным и правильным.*

**Ключевые слова:** *повышение температуры тела до 38°C, головные боли, гнойные выделения из полости носа, потеря обоняния или его ухудшение; отек века на стороне пораженной пазухи, потеря аппетита, быстрая утомляемость.*

### **Causes of sinusitis during pregnancy**

A variety of reasons can contribute to the development of inflammation in the maxillary sinuses: from respiratory infections to a bad tooth. During this period, a woman's immunity is weakened, and she is especially susceptible to various kinds of infections. Even a common cold can develop into severe inflammation.

Bacteria, penetrating the sinuses, increase the formation of mucus in the sinus by their presence, and since the sinus opening swells, excess mucus cannot come out. The cavity creates excellent conditions for the reproduction of pathogenic microflora and the development of a purulent inflammatory process.

### **What factors provoke sinusitis during pregnancy?**

- infectious diseases of the upper respiratory tract;
- carious teeth and other dental problems of the oral cavity;
- chronic diseases of the ENT organs (tonsillitis, rhinitis);
- adenoiditis (inflammation of the adenoids);
- deviated nasal septum;
- polyps in the nose;
- tendency to allergies;
- hypothermia.

Therefore, it is very important to monitor your health during pregnancy, and at the slightest deviation from the norm, consult a doctor, even if you are worried about a common cold.

### **Symptoms of sinusitis during pregnancy**

At an early stage, the disease can be mistaken for a cold: runny nose, nasal congestion, deterioration of the general condition. But there are signs specific to sinusitis that should alert you and become a reason to contact an otolaryngologist.

Damage to the maxillary sinuses is always accompanied by pain in the bridge of the nose and under the eyes in the cheek area. The patient experiences unpleasant pressure in the sinus area: this is pus accumulated inside, and there is no longer enough space for it there. The pain becomes more intense if you turn your head or tilt it down. By evening, the symptoms intensify. Also, the pregnant woman **experiences:**

- an increase in body temperature up to 38°C;
- headaches;
- purulent discharge from the nasal cavity;
- loss of smell or its deterioration;
- swelling of the eyelid on the side of the affected sinus;

- loss of appetite;
- rapid fatigue.
- All these symptoms are very unsettling for any person, not to mention a pregnant woman. Sinusitis is much more difficult to bear during pregnancy.

### **What is the danger of inflammation of the maxillary sinus during pregnancy?**

Any pregnant woman has a logical question: is the disease classified as dangerous during pregnancy? Inflammation of the maxillary sinuses does not directly affect the fetus, but it can trigger a chain of processes in the body that can cause serious consequences.

The first danger is associated with the constant nasal congestion of the expectant mother.

When the nose is stuffy, normal nasal breathing becomes impossible. The brain and other organs do not receive enough oxygen. This can affect, for example, the proper functioning of the cardiovascular system of the expectant mother. Oxygen deficiency also has a detrimental effect on the condition of the fetus. It can lead to hypoxia and pathologies of its development.

Therefore, sinusitis is most dangerous during pregnancy in the 1st trimester, when the fetus is just forming the rudiments of future organs and systems, and the disease can disrupt this process.

Another danger is associated with the close location of the sinuses with vital organs (eyes, brain) and the likelihood of pus entering the cranial cavity. When purulent masses in the sinus cannot exit into the nasal cavity due to swollen anastomoses, they find another way out - they can rise higher to the eye socket, to the brain or get into the blood. In these cases, there is a high probability of vision loss, meningitis, brain abscess and sepsis. These conditions threaten the life and health of the expectant mother and can be fatal.

### **Diagnosis of sinusitis during pregnancy**

Diagnosis and treatment of sinusitis during pregnancy is performed by an otolaryngologist. When the first signs of inflammation appear, a pregnant woman should immediately seek medical help in order to recognize the problem in time and start eliminating unpleasant symptoms.

Diagnosis of a pregnant woman begins with a survey of complaints. The doctor finds out when the first symptoms appeared, whether they were preceded by respiratory diseases, whether the woman has allergies, etc. The woman must inform the ENT doctor about her condition, since the treatment of sinusitis during pregnancy has its own nuances.

After the survey, the doctor proceeds to a direct examination of the patient. During a visual examination, swelling of the eyelids and swelling of the cheek in the area of the inflamed sinus are noticeable. When pressing with fingers on the cheeks in the area of the sinuses, pain may appear - this is a physical diagnostic method called palpation. Then follows an instrumental diagnosis. The doctor performs a rhinoscopy using special ENT instruments. Examination of the nasal cavity



shows the condition of the nasal mucosa, the curvature of the nasal septum (if any), and the presence of discharge from the sinuses.

A more modern method of examining the nasal cavity is an endoscopic examination. The doctor carefully inserts a thin tube with an eyepiece and a light source at the end into the patient's nasal cavity and examines all hard-to-reach areas of the nasal cavity during the examination. If video endoscopy is performed, the entire course of the examination can be displayed on the screen and recorded on a digital medium. Thus, the patient herself will see, and the doctor will be able to clearly show what processes are taking place in her nasal cavity,

Often, patients with sinusitis are prescribed an X-ray examination. Inflammation of the maxillary sinuses on an X-ray image looks like a darkening in the sinus area. The X-ray immediately dispels all doubts regarding the diagnosis. But such a study is contraindicated for pregnant women.

As an alternative to an X-ray examination, sinus scanning of the sinuses is performed.

This is a safe method of ultrasound diagnostics that does not expose the patient to radiation, unlike X-rays. It does not require preparation, is carried out quickly, and the doctor immediately sees the result.

To confirm the presence of an inflammatory process, the patient is sent for a general blood test. To determine the causative agent of the disease, a smear is taken from the nasal cavity.

After the diagnosis is confirmed, effective treatment for sinusitis during pregnancy is prescribed.

### **Treatment of sinusitis during pregnancy**

Treatment of inflammation of the maxillary sinuses during pregnancy must be carried out strictly under the supervision of an otolaryngologist. The "interesting" position of the expectant mother imposes many restrictions: many medications and procedures are contraindicated.

Therefore, it is very important not to self-medicate, not to rely on the advice of friends and recipes from the Internet. Only competent help from an ENT doctor will help to cope with the disease quickly, and most importantly, safely

To relieve the symptoms of inflammation, the patient is prescribed vasoconstrictor drugs, saline solutions for rinsing the nose, antipyretics. Among antipyretic drugs, preference is given to "Paracetamol", since it is safer than other drugs.

The classic complex treatment regimen for sinusitis involves taking antibiotics. But during pregnancy, taking antibacterial drugs is undesirable. In extreme cases, local antibiotics are prescribed, which need to be irrigated into the nasal cavity.

A good therapeutic effect is shown by washing the maxillary sinuses using the method of moving the liquid. Although in everyday life you can often hear another name for this procedure -

"cuckoo". During the procedure, the patient is in a lying position. The ENT doctor feeds a medicinal solution into one nostril, and from the other, using a special syringe, draws it out along with all the purulent contents of the sinus. While the solution passes through the sinuses, washing them, the patient should repeat "ku-ku-ku-ku-ku" so that the solution does not get into the throat. Relief comes after the first procedure.

Another method of treating inflammation of the maxillary sinuses is a puncture (piercing) of the sinus. The essence of the method is that the doctor punctures the wall of the sinus with a special needle, pumps out pus with a syringe and rinses the sinus with an antiseptic solution. The puncture allows you to relieve congestion, eliminate headaches and a feeling of distension in the sinus area. A puncture of the sinus is an extreme measure when the therapy does not work, but it is very effective. Physiotherapy is contraindicated during pregnancy.

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