

Metacholine test

The methacholine test is used to assess airway hyperreactivity.

The approximate duration of the test is 60 minutes

The necessity of the test is decided in advance by the attending physician and is carried out by a trained pulmonology nurse.

The methacholine test is essentially a provocation test, i.e. the test tries to induce a bronchospasm (so-called asthma attack). For this purpose, the patient is allowed to inhale methacholine solution in increasing concentration using a special dispenser. Spirography (breathing test) is performed after each inhalation.

Symptoms characteristic of asthma (difficulty breathing, coughing, tightness in the chest, wheezing) and in some cases headache may occur during the examination. The resulting symptoms are usually mild and disappear over time after inhaling from a bronchodilator (salbutamol).

Before the test, do not use:

- a short-acting bronchodilator (e.g. Ventolin, Atrovent, Berodual) – 8–12 hours before the examination;
- a long-acting bronchodilator (e.g. Symbicort, Seretide, Bretaris) – 48 hours before the examination;
- extremely long-acting bronchodilators (e.g. Seebri, Relvar, Trelegy, Anoro) – 72 hours before the examination;
- Montelukast tablets – 4 days before the examination;
- Theophylline tablets – 2 days before the examination;
- inhaler Respimat (Spiolto and Spiriva) – 72 hours before the examination.

Since the methacholine test can be physically difficult (it lasts 60 minutes and there is continuous intensive breathing), we ask that you come to the examination on time, rested and having eaten in the morning.

On the same day as the test, you should avoid consuming foods containing large amounts of caffeine (e.g. coffee, black tea, chocolate, cola drinks, and caffeinated flavoured waters).

Contraindications to the test are:

- arterial aneurysm;
- stroke or myocardial infarction less than three months ago;
- untreated elevated blood pressure: systolic > 200 mmHg, diastolic > 100 mmHg.