

Methacholine Challenge Test

Your doctor has recommended a Methacholine Challenge Test at Children's Health. This handout describes your instructions and the testing procedure. We will review all of this information again and answer any questions on the day of your appointment.

What is a methacholine challenge test?

Methacholine is the name of a medication that can be used to help determine if your child's breathing problems are caused by asthma. During the test, your child may experience a decrease in lung function. We will monitor your child very closely and can reverse any symptoms with a breathing treatment if necessary. The information from the test will help in forming a treatment plan for your child.

Can I be with my child during the test?

As long as you are not pregnant and do not have a history of asthma you are allowed to stay with your child throughout testing. It is very important that you **do not interfere or distract your child during the test**. We need their full attention to get the necessary data. Sometimes parents that mean to help only cause confusion or actually give their children the wrong instructions. Some parents choose to wait in the waiting area. The entire test takes about an hour.

How do we prepare for the test?

Because we are doing a test to look for asthma, we ask that your child not take certain medications before the test. Please review the following list of medications and hold them accordingly:

- **Hold for 6 hours prior:** Short-acting inhaled bronchodilators* – reliever medications (*Albuterol, Xopenex, Proair*)
- **Hold for 12 hours prior:** Short-acting anticholinergics (*Atrovent*)
- **Hold for 36 hours prior:** Long-acting inhaled beta agonist (*Salmeterol*) and medications that contain this drug (*Advair*)
- **Hold for 48 hours prior:** Ultra-long acting beta agonists (*indacaterol, vilanterol*)
- **Hold at least 72 hours prior:** Long acting anticholinergics (*Tiotropium*)
- **If you are unable to hold the rescue inhaler/nebulizer due to breathing difficulty, please let us know and we can reschedule the test or talk to the doctor.**

What will happen during testing?

We will have your child blow into a machine to determine how they are breathing before we start the challenge. Then we will give up to 6 nebulizer treatments with different doses of medication. After each dose of medication your child will be asked to blow into the machine several times to monitor their breathing. We may or may not stop the test early and give a bronchodilator to help them breathe easier. Your child will be monitored very closely throughout the test and until their lung function is back to baseline.

What happens after the test?

A pulmonologist will review the information and send a report to your doctor, or it will be discussed at a follow up appointment.

If you have further questions prior to your test, please call the Pulmonary Lab at: 214-456-3893.