

Methacholine Challenge Test

The Division of Pulmonary Medicine at Cincinnati Children's Hospital Medical Center performs methacholine challenge testing.

What is Methacholine Challenge Testing?

Methacholine Challenge Testing is a test used by your caregiver to determine if your child may have asthma.

How is the test done?

Methacholine is a drug which may cause the airways to narrow. Your child will breathe in very low doses of methacholine by a mist aerosol and then have spirometry measured. Doses of inhaled methacholine will be gradually increased with spirometry recorded after each dose. The testing will be completed if your child either shows signs by spirometry that the airways are narrowing, or if your child reaches the highest dose used in the test without airway narrowing.

How long does it take?

The test takes up to 2 hours.

How does my child prepare for this test?

There is a list of medications that may decrease your child's response to the methacholine and should be avoided only if possible prior to testing. Check with your child's physician before discontinuing any medication prior to this test, or call the PFT Laboratory at 513-636-8049.

Are there any side effects?

Thousands of methacholine challenge test have been performed in Cincinnati Children's pulmonary function laboratory and elsewhere with no serious side effects. Methacholine causes airway narrowing; however, all precautions are taken including continuous monitoring and administration of an inhaled broncholdilator to your child if any airway narrowing is observed.