Asthma Tests

Your doctor would like you to have one or both of these tests to determine if you have asthma. Asthma is a chronic lung condition where the airways or bronchial tubes can become narrow and close or go into spasms. Different substances or activities can trigger asthma, such as allergies, smoke, colds, exercise, or pet dander. It is important to follow all of the directions to get accurate test results. Plan to have the test(s) for at least an hour.

Asthma Tests

Two tests that may be used to check for signs of asthma:

- **Methacholine Challenge**: This is an inhaled drug that creates signs of asthma. You will first have a breathing test to see how much air you can blow out. After this test, you will be given a mist of methacholine to breathe. After each inhaled mist, you will do the breathing test again.

  **If you have a reaction to the mist, it can cause chest tightness, wheezing or cough.** If this occurs you will receive treatment to reverse this reaction.

- **Eucapnic Voluntary Hyperventilation**: This test is used to diagnose exercise-induced asthma. You will first have a breathing test to see how much air you can blow out. You will then breathe at a faster rate than normal breathing for 6 minutes. During this part of the test, you will breathe air that has 5% carbon dioxide added to it. **This is a safe level of carbon dioxide to breathe.** The breathing test will then be repeated at 3 minute, 5 minute, 10 minute, 15 minute and 20 minute intervals to check your response. A short acting bronchodilator will be administered if needed.
Treadmill or Bike Exercise
This test is used to diagnose exercise-induced asthma. You will perform a breathing test that show forced lung volumes. You will then exercise on the treadmill or bike at your maximum effort for 6 minutes. Right after this exercise you will have the breathing test. A short acting bronchodilator will be given if needed.

Note: Please wear tennis shoes and comfortable clothing for this test.

Other Tests

Medicines Before the Tests
To have accurate test results, talk with your doctor about the medicines you take. It is important to stop taking these medicines:

- 4 days:
  - Avoid leukotriene modifiers, such as: Accolate (zafirlukast), Singular (montelukast) or Zyflo (zileuton).

- 3 days / 72 hours:
  - Avoid antihistamines and decongestants, such as: hydroxyzine, Claritin (loratidine), Allegra (fexofenadine), Zyrtec (cetirizine), Clarinex, (desloratadine), Alavert, Benadryl.

- 2 days / 48 hours:
  - Avoid Theo-Dur Slo-Bid or Uniphyl (theophylline) and Aminophylline.
  - Avoid long-acting inhaled brochodilators: Advair, Foradil, Serevent, Spiriva, Symbicort, Dulera, Brovana or Perforomist
  - Cromolyn Sodium (Intal) for 48 hrs

- 1 day / 24 hours:
  - Avoid corticosteriods that are inhaled (spray or nebulizer), taken by mouth or by nose, such as: Aerobid, Alvesco, Asmanex, Azmacort, Beclovent, Beconase, Flonase, Flovent, Medrol, Mosocort, Prednisone, Pulmicort, QVAR, Rhinocort, or Vanceril.
  - Avoid Oral “pill form” brochodilators, such as: Terbutaline, Proventil, Ventolin or Volmax.
• **12 hours:**
  - Avoid short-term inhaled bronchodilators, such as: Albuterol, Alupent, Brethaire, Bronkaid, Bronkometer, Bronkosol, Combivent, Isuprel, Maxair, Metaprel, Primatine Mist, Proventil, Tilade, Ventolin, VoSpire, or Xopenex, Atrovent, Pro-air, Tornalate, Medinhaler.

**Preparing for the Test**

It is also important to follow these directions before the test:

• Do not have any immunizations or shots at least **7 days** before the test.

• Do not have these tests if you had a cold or flu within **7 days**. Call your doctor to reschedule this appointment.

• If you smoke, avoid smoking for at least **12 hours**.

• Avoid coffee, tea, colas/sodas or other drinks with caffeine for at least **6 hours** before the test and avoid all chocolate for 6 hours as chocolate contains caffeine.

• Avoid moderate to strenuous exercise **4 hours** before the test.

If you have any questions or concerns while preparing for this test, call the Pulmonary Diagnosis Lab at (614) 293-4938 or the Lung Center at (614) 293-4925.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.