The Division of Pulmonary Medicine at Cincinnati Children’s Hospital Medical Center performs diffusion tests.

**What is Diffusion Testing?**
Diffusion tests measure gas transfer from the lungs into the bloodstream. Lung disease can cause changes in this measurement.

**How is the test done?**
Diffusion is measured by having your child place padded nose clips on their nose and place their mouth around a clean, filtered mouthpiece. The mouthpiece is connected to a computer. Your child will be instructed to breathe normally, exhale fully, take a large quick breath in of a mixture of gases, hold for 10 seconds and then fully exhale.

**How long does it take?**
Diffusion tests are performed with other tests and could take up to 1 hour.

**How does my child prepare for this test?**
Avoid the following: No smoking 24 hours prior. Exercise should not be done within 1 hour of testing. Do not eat 2 hours prior to testing.

**Are there any side effects?**
There are no side effects from diffusion testing and your child may resume normal activities after testing. The mixture of gases includes a small amount of carbon monoxide that is safe for children of any age.