Diaphragm Fluoroscopy (Sniff Test)

What is a diaphragm fluoroscopy?

A diaphragm fluoroscopy (also called a sniff test) is done to evaluate the function of your diaphragm. The diaphragm is a muscle shaped like a parachute that separates the chest cavity from the abdominal cavity. The diaphragm contracts to fill the lungs with air on inspiration, or breathing in; and relaxes on expiration, or breathing out.

The Sniff Test is performed using fluoroscopy, which uses a continuous beam of X-rays to see the diaphragm move up and down on inspiration and expiration. The test allows for real-time observation of the diaphragm movement. The sniffing maneuver activates the diaphragm and exaggerates its movement.

How do you get ready for the test?

There is nothing specific you need to do to prepare for this test.

What happens during a Sniff Test?

Before the study you will need to remove all clothing from the waist up. You will be given a hospital gown to wear. The study is completed in a radiology (x-ray/fluoroscopy) room. The radiologist or radiology practitioner assistant (RPA) operates the fluoroscopy equipment to take images of the diaphragm and provides a medical diagnosis for your doctor.

You will be asked to breathe in and out, hold you breath briefly, and sniff forcefully while images are acquired. This is done in a standing position and lying down. If you have any questions or don’t understand the instructions please ask.

How long will the test take?

The Sniff Test will take about 20 minutes. Most of that time is taken preparing and changing clothes.

How do you get to your appointment?

If you are being seen at National Jewish Health, your appointment is in Advanced Biomedical Imaging (Radiology). Radiology is on the third floor of the Smith Building. On the day of your test, first report to the Admissions Desk just inside the Main Entrance. Admissions will direct you to the appropriate location for your test. If you have questions, or will not be able to make your appointment, please call
Visit our website for more information about support groups, clinical trials and lifestyle information.

NOTE: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

National Jewish Health is the leading respiratory hospital in the nation. Founded 119 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit njhealth.org.