

## **LUNG SCAN: Ventilation and Perfusion**

### **Purpose:**

Primarily used as an indicator for pulmonary emboli (blood clots in the lungs), chronic obstructive pulmonary disease (COPD).

### **How long will this procedure take?**

Allow 60 to 90 minutes.

### **Preparation:**

The patient must be cooperative and be able to breathe on an inhalation machine for 5 to 10 minutes using a mouthpiece or mask. You must remove all jewelry, snaps, buttons, and other metallic objects.

### **Procedure:**

**PART I:** (Ventilation portion of the examination: checks the airways of the lungs). You will lie supine on a table over the camera and asked to breathe on a ventilation system while a radioactive aerosol is introduced into the airways of the lungs. A mouthpiece is used, the nose is clamped off and you will breathe in and out through the mouth for 5 to 10 minutes. If this cannot be done, a mask is positioned over your nose and mouth until sufficient aerosol is contained in the lungs to produce images. Six images are acquired; scanning will require 30 minutes.

**PART II:** For the Perfusion scan, you will be given an IV injection of a radioactive material, which localizes in the capillaries of the lungs, evaluating the blood flow to the lungs. Six views are performed, each about 2 minutes. These are then compared with the first set of images. A routine chest x-ray is also done if you have not had one within the past 24 hours.

### **After the examination:**

The radiologist will study your films and dictate a report, which will be sent to your physician within 24 hours.