

# Lung Nodules

You may be referred to a MLA physician due to findings of a lung nodule on imaging. A lung (pulmonary) nodule is an abnormal growth that forms in a lung. You may have one nodule on the lung or several nodules. Nodules may develop in one lung or both. Nodules are sometimes called a “spot on the lung” or a “shadow”. Nodules are very common and are found in up to 50% of adults who have a CT scan or chest x-ray. Most people find out they have a lung nodule after getting an imaging test in preparation for a procedure or another purpose. The findings are often a surprise. Most nodules are less than 1 cm. They are too small to cause pain or breathing problems. Most lung nodules are benign (not cancerous). Benign nodules can be the result of a prior healed infection (even one that never made you sick), irritants in the air, an autoimmune disease, such as rheumatoid arthritis or sarcoidosis. A nodule may represent scar tissue. Rarely, pulmonary nodules are an early sign of lung cancer. While the thought of lung cancer can be very scary, fewer than 5% of all nodules turn out to be cancer (more than 95% are benign).

Your MLA physician will recommend a plan based on the size, location and shape of your nodule. Your healthcare provider may recommend active surveillance. In 3 to 6 to 12 months, you get another CT scan. Repeat imaging at designated intervals is to assess for growth. Nodules that stay the same size over a two-year surveillance period are not likely to be cancer. You may be able to stop getting CT scans. It is very important to bring copies of any prior imaging (chest x-ray or CT) to your visit so that your MLA provider can compare studies. It is very reassuring if your nodule has not changed over the years.

If your nodules is large (more than half an inch or 12 mm) or growing or your physician believes the nodule is suspicious for a cancer, your provider may order further tests if the nodule is large (more than half an inch, or about 12 millimeters) or it grows. These tests may include:

*Bronchoscopy:* While you’re sedated, your provider threads a thin tube (bronchoscope) down your throat into the lung. A tiny surgical instrument on the end of the scope snips and retrieves a tissue sample from the nodule. A lab analyzes this biopsy sample for abnormal cells.

*CT scan-guided biopsy:* For nodules on the outer part of the lung, your provider uses CT images to guide a thin needle through the skin and into the lung. This needle biopsy takes tissue samples from the nodule to examine for abnormal cells.

*Positron emission tomography (PET) scan:* A PET scan uses a safe, injectable radioactive chemical and an imaging device to detect diseased cells in organs

*Surgery:* If there is a higher chance that the nodule is cancer (or if the nodule can’t be reached with a needle or bronchoscope), surgery might be done to remove the nodule and some surrounding lung tissue. Sometimes larger parts of the lung might be removed as well.

**What increases the risk that a lung nodule is cancer?**

Your doctor will look at several things to see how likely it is that a nodule is cancer. He or she will look at:

- Whether you smoke or have smoked in the past.
- Your age and your family's medical history.
- Whether you have been exposed to or breathed in harmful materials, like tobacco smoke, asbestos, radiation or coal dust.
- The size and shape of the nodule.
- Whether the nodule has changed in size.

**When should I call the doctor?**

You should call your healthcare provider if you experience:

- Chest pain.
- Chronic cough or coughing up blood.
- Loss of appetite and/or unexplained weight loss.
- Hoarseness
- Recurring respiratory infections like bronchitis or pneumonia
- Shortness of breath and/or wheezing

Link to information sheet:

<https://www.thoracic.org/patients/patient-resources/resources/lung-nodules-online.pdf>