

Lung Nodules

What is a lung nodule?

A lung nodule or pulmonary nodule is also called a spot on your lung. It is usually round or oval in shape. Lung nodules are easy to find using chest-x-ray or, more often, a chest CT scan. Pulmonary nodules are found in 1 out of every 4 chest CT scans. Most pulmonary nodules (more than 90%) are benign and not cancerous. However, they need to be examined and watched closely, because some could be a small cancer. Finding cancers early, when they are small and curable, is the goal of a screening program. Benign or non-cancerous nodules can be caused by previous infections or old surgery scars.

Eighty percent of people who have a small lung cancer (1 cm in size, about ½ inch) surgically removed will live at least five years after the diagnosis and are considered cured. Unfortunately people with larger lung cancer do not live as long, and have a lower survival rate. Early detection is the key to better outcome.

What are the symptoms of a lung nodule?

Nearly 90% of all lung nodules are discovered by accident. Usually they are seen on a chest X-rays or a chest CT scan that was performed for other reasons. Due to the small size of most nodules, symptoms are few if any, but may include those similar to a chest cold or a mild flu.

How is a lung nodule examined?

If a pulmonary nodule is considered suspicious for lung cancer, it will need to be biopsied to determine if it is cancerous. This decision is based on the nodule's size, shape, location and appearance on chest X-ray or chest CT scan, as well as considering other risk factors. Other risk factors that are considered include your smoking history, your family history of cancer, any other lung problems such as COPD. The biopsy is a simple procedure of getting a sample from the pulmonary nodule for microscopic exam. It can be done surgically, through a bronchoscope or by placing a needle through the chest wall under radiographic guidance to obtain samples.

The bronchoscope approach is an outpatient procedure is not an operation, and is without any cutting, sutures or sticking needles through the chest wall. After heavy sedation and numbing of mouth and throat, the bronchoscope is inserted into your airways and is guided to the lung nodule. A sample is taken and immediately examined by a pathologist (a doctor who identifies diseases by studying cells and tissue under a microscope).

The pathologist will determine if the pulmonary nodule is cancerous or benign. If it is benign (not cancerous), your doctor will ask you to come back in the future to re-examine the spot with another X-ray to see if it will go away, or not, and be very certain of the diagnosis. By continuing to watch the nodule, if it changes in any way that might question the benign diagnosis, it will be caught early and further testing performed. If the nodule is cancerous, a other biopsy samples might be taken or tests performed to determine if the cancer has spread. Your doctor will always discuss next steps with you.

How are lung nodules treated?

Benign (non-cancerous) lung nodules do not need treatment. Lung cancer, if localized, is usually removed surgically. If part of the cancer has spread to other parts of the body, you may need chemotherapy, radiation therapy, surgery, alone or in various combinations.

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