Lung Nodules

What is a lung nodule?
A lung nodule is also called a spot on your lung (pulmonary nodule). It is usually round or oval in shape. They are easy to find but can be hard to diagnose. Nodules can be present in your body years before they are discovered by a doctor. Doctors find lung nodules on one out of every 500 chest x-rays. Most nodules (more than 60%) are not cancerous. They are usually discovered on a chest x-ray or a CT scan. Non-cancerous nodules can be caused by previous infections or old surgery scars. Nodules need to be examined and watched closely because they could become cancerous. Eighty percent of people who have cancerous nodules (1 cm in size) removed live at least five years after the diagnosis. People with larger cancerous nodules have a lower survival rate, so early detection is the key to survival.

What are the symptoms of a lung nodule?
Nearly 90% of all lung nodules are discovered incidentally. Usually they are seen on chest x-rays or CT scans that are performed for other reasons. Symptoms are few if any, but may include those similar to a chest cold or a mild flu.

How is a lung nodule examined?
When your lung nodule is considered highly suspicious based on its size, shape and appearance on chest x-ray or CT scan as well as other risk factors such as your smoking history and family history of cancer, it will need to be biopsied to determine if it is cancerous. The biopsy is a simple procedure of getting a sample from the pulmonary nodule for microscopic exam. It can be done surgically, bronchoscopically and by placing a needle thru the chest wall under radiographic guidance.
The bronchoscope approach is an outpatient procedure without any cutting, sutures or sticking needles thru the chest wall. After heavy sedation and numbing of mouth and throat, the bronchoscope is inserted in your airways and is guided to the lung nodule with (at National Jewish Health) or without navigation system. 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 nodule is cancerous. If it is not cancerous, your doctor will ask you to come back to re-examine the spot. Your doctor will watch it for any changes and catch it early if it becomes cancerous. If the nodule is cancerous, a few more samples will be taken to determine how far the cancer has spread. Next steps will be discussed.

**How are lung nodules treated?**
Most non-cancerous lung nodules do not need treatment. Cancerous nodules, if localized, are usually removed surgically. If nodules (cancer) have spread to other parts of the body, you may need radiation and/or chemotherapy with or without surgery.

**Where can I get more information?**
If you want more information about lung nodules or need to see one of our lung specialists, please call the Lung Line at 1-800-222-LUNG.

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.

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