What is a Lung Nodule?

Commonly called a “spot on the lung” or a “shadow,” a nodule is a round area that is more dense than normal lung tissue. It shows up as a white spot on a CT scan. Lung nodules are usually caused by scar tissue, a healed infection that may never have made you sick, or some irritant in the air. Sometimes, a nodule can be an early lung cancer.

Why have I been given this handout?
One or more lung nodules were seen on your recent chest x-ray or CT (“CAT”) scan.

How common are lung nodules?
Nodules are found in up to half of adults who get a chest x-ray or CT scan.

Do nodules cause any symptoms?
In general, small nodules don’t cause any noticeable problems. They’re too small to cause pain or breathing problems.

How big is the nodule?
Your healthcare team can tell you the exact size of your nodule. Most nodules are less than 10 millimeters (about a ½ inch)
Here are the sizes of some common items for comparison.

Should I worry that I have a nodule?
Most nodules are not cancer, but for a small number of people the nodule may turn out to be an early cancer. Your doctor can tell if your nodule is lung cancer by:
1. Seeing how it looks on the CT scan.
2. Seeing whether it grows over time. A nodule that grows larger over time is a sign that it could be a cancer.
3. Taking a sample of the nodule with a needle or surgery. Most people with a nodule will NOT need to have this test.

Did you just say “lung cancer”?
Hearing the words “lung cancer” can be very stressful. It is normal to be worried and anxious when there is even a small chance you might have lung cancer. Please talk with your healthcare team about any worries or concerns that you have.

What is the chance that the nodule is an early lung cancer?
Fewer than 5% of all nodules turn out to be cancer.

Cancer is more likely in patients who:
- are older
- have a larger nodule
- smoked or still smoke cigarettes
- have other cancer risks, such as lung cancer in your family or handling asbestos in the past.

For example, a small nodule in a young person who never smoked is less likely to be cancer than a larger nodule in an older person who recently quit smoking. However, even in the person with a high risk of lung cancer, most small nodules are not lung cancer.

Some people would like an estimate of how likely their nodule is to be lung cancer. If knowing that number would help you, please contact your healthcare provider.

What if my nodule is lung cancer?
Even if a nodule turns out to be lung cancer, it is likely to be an early stage lung cancer. People with early stage lung cancer that is treated are less likely to die than people who are diagnosed at a later stage when the cancer has started to cause symptoms. Your healthcare team will be with you every step of the way. Please discuss any concerns you have about lung cancer with your healthcare team.

What will happen next?
Your healthcare team will probably recommend getting more CT scans to keep a close eye on the nodule to see if it changes. We call this “active surveillance.”
- If a nodule is not cancer, it usually won’t grow. If the nodule doesn’t grow over a 2-year period, it is very unlikely to be cancer. Most of the time, it is safe to stop watching nodules if there is no growth over a 2-year period.
- On the other hand, if the nodule is getting bigger, it should be looked at more closely to see if it is lung cancer. Nodules can be viewed more closely using different radiology studies or by biopsy (using a needle or surgery to take a sample of the nodule to look at under a microscope). Your healthcare team will determine which is best for you. You should let your healthcare team know if you have strong preferences about having specific tests related to your nodule.

What if I’ve had a chest x-ray or CT in the past?
Let your healthcare provider know if you’ve ever had a chest x-ray or CT. It is very reassuring if your nodule is the same size as it was on past imaging.
Let your healthcare provider know if you have had a chest x-ray or CT scan in the past so they can check whether the nodule was there before.

Biopsies of small nodules can cause more harm than good.

If you are still smoking, quitting is the most important thing you can do to improve your health.

It is normal to be worried when there is even a small chance of lung cancer.

Please share your concerns with your healthcare team.

**Contact your clinician if you:**
- Have had a chest x-ray or CT scan in the past.
- Develop new shortness of breath, chest pain, fevers, or chills.
- Experience unintended weight loss of 10 pounds or more.
- Have worry and anxiety about the nodule.
- Want more information.

**Healthcare Provider’s Contact Number:**

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**Resources:**

US National Library of Medicine

Smokefree.gov

American Thoracic Society
www.thoracic.org/patients
- Lung Cancer (introduction, prevention, treatment, staging)
- Lung Cancer Screening Guide

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