## **HKSH Respiratory Medicine Centre**

#### **Happy Valley**

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Service Hours

Monday to Friday: 9:00 am - 5:00 pm

Saturday: 9:00 am - 1:00 pm

Closed on Sundays and Public Holidays

Consultation by Appointment





# Lung Nodules: Can they be cancerous?



# What is a Lung Nodule?

It is commonly called a "spot on the lung" or a "shadow", which is a lung nodule, a round area that is denser than normal lung tissue. Lung nodules are lesions with a size of diameter ≤3 cm on Computed

Tomography (CT) scan, which can be solid, semi-solid, ground glass in appearance, single or multiple. Sometimes, a nodule could be an early lung cancer.



# How common are lung nodules and does the size of it matter?

Nodules are found in up to half of adults who have undergone chest X-rays or CT scans. They appear as round and white shadows on chest X-rays or CT scans. In general, small nodules don't cause any symptoms. The majority—at least 95 percent of lung nodules overall—are not cancerous. Here are different sizes of some common items for comparison:



Lung nodules are usually about 0.2 inch (5 millimeters) to 1.2 inches (30 millimeters) in size.

#### **Causes of Lung Nodules**

- · Bacterial infections
- Fungal infections
- Inflammation
- Benign tumors or scarring
- · Malignant tumors
- Metastatic lesions

#### Should I be worried?

Most lung nodules are not cancerous, but some may turn out to be early cancer. Your doctor would assess your nodule by:

- 1. it's size, shape and appearance on the CT scan.
- 2. whether it grows over time. A nodule that grows larger over time is a sign that it could be cancerous.
- taking a tissue sample of the nodule or proceeding to surgery. Most people with a nodule will NOT need this test.

# Who is at high risk for lung cancer?

Less than 5% of lung nodules turn out to be cancerous. However, the high risk patients are often:

- older
- ex- or current smokers
- having personal or family history of lung cancer
- with a past history of exposure to asbestos

For example, a small nodule in a young non-smoker is less likely to be cancerous. However, a larger nodule in a chronic or ex-smoker is warranted for close observation or further investigations. In general, even for people at high risk of lung cancer, most small lung nodules are not cancerous.

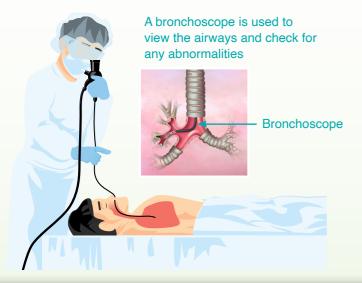
#### How to confirm whether it is cancerous?

For nodules less than 8mm in size, your healthcare team will probably give you a recommendation of CT scan reassessment at regular intervals to keep a close eye on the nodule to see if it changes over time. We call this "active surveillance." Most people with small lung nodules will need additional CT scans in the next year or two.

Let your doctor know if you have already had a chest X-ray or CT scan thorax in the past, so they can see whether the nodule has been there before.

If a nodule is not cancerous, it usually does not grow. If the size of a solid nodule is stable over a 2-year period, it is very unlikely to be cancerous. It is often safe if there isn't any growth over a 2-year period. For ground glass nodules, 5 years of active surveillance is recommended. Noncancerous lung nodules are often scarred tissues caused by previous infections or inflammation.

If the nodule is getting bigger, it should be monitored closely to see if it is cancerous by radiological studies at shorter intervals. For nodules over 8mm in size, tissue biopsy sould be considered by bronchoscopy or CT-guided biopsy in order to take a tissue sample of the nodule for histopathology under a microscope.



### Why shouldn't I get a biopsy immediately?

A biopsy means taking a piece of your lung tissue invasively in order to be examined under a microscope for any cell changes. Biopsies are usually not recommended when nodules are small (<8mm in size) because it is very difficult to biopsy them safely.

#### Should I quit smoking?

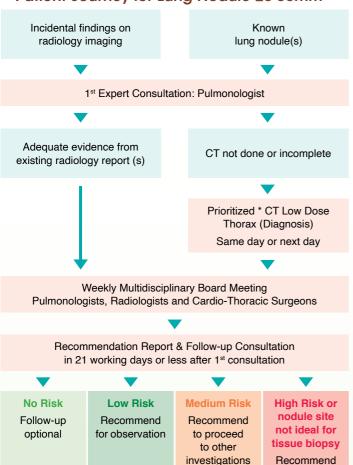
Smoking is harmful to your health and those around you. By quitting smoking, you can reduce your chance of getting lung cancer in the future, as well as many other serious diseases like emphysema, heart disease and stroke. For those who quit smoking for more than 15 years, they have already reduced the risk of developing lung cancer significantly. Your healthcare team will help you to quit smoking by prescribing medications and offering counseling if needed.

It is often puzzling when there is even a small chance of suffering from lung cancer. Please share your concerns with your healthcare team and let us help you.

# **HKSH Lung Nodules Programme**

HKSH Lung Nodules Service multidisciplinary team staffed by experienced pulmonologists, cardio-thoracic surgeons, radiologists and respiratory nurses offer concerted effort and seamless care to minimise patient anxiety and stress.

#### Patient Journey for Lung Nodule ≥8-30mm



and/or tissue

biopsy

to proceed

to other investigations/ management by Cardio-Thoracic Surgeon The team works together to evaluate the radiological imaging and risk factors of every patient. Service package consists of doctors' fees for the initial consultation and input from radiologists/ cardio-thoracic surgeon at the MDT meeting. After reviewing patient's health condition, family history and lifestyle, patient would be given the recommendation report on their follow-up consultation. The expert team provides the best guidance to patient and family to navigate for monitoring or treatment options.

If you or your beloved one has already had a chest X-ray or CT scan thorax showing a lung nodule, let us help you.

The estimated charges for the above-mentioned package at the Respiratory Medicine Centre of Hong Kong Sanatorium & Hospital is HKD\$4,500

#### The package includes:

- · Pulmonologist first consultation fee
- · Radiologist reporting fee
- · Cardio-Thoracic Surgeon reporting fee
- Joint Lung Nodule Medical Report by Pulmonologist, Radiologist and Cardio-Thoracic Surgeon
- · Pulmonologist follow-up consultation fee