

PULMONARY NODULES/ LUNG NODULES

What is a pulmonary nodule?

A pulmonary nodule is a small spot/ dot/ shadow or a growth in the lung. It is usually denser than the surrounding lung tissue. It can be single or multiple and do not cause any symptoms. These are usually incidental findings on a chest x-ray or CT scan and appear as rounded opacity/ opacities (less than 3cm).

Around 35% of the people who undergo a CT scan (which includes their lungs) will have a nodule found.

What causes these nodules?

Pulmonary nodules are not uncommon and there are many different reasons for these nodules. It is not always possible to know the exact cause of the pulmonary nodules. Sometimes after a CT scan your doctor may request a PET CT and a biopsy, to determine the cause of the lung nodules. Current smokers or ex-smokers have more chances of having nodules on their lung CT scan when compared with non-smokers.

Majority of the lung nodules are benign (non-cancerous). Benign lung nodules grow very slowly or may not grow at all.

Some of the lung nodules are normal lymph nodes. Some nodules represent areas of scarring or tiny areas of previous inflammation. Lung nodules are commonly seen in people who have had TB. Certain other diseases that do not primarily affect the lung e.g., rheumatoid arthritis can also cause lung nodules.

In a small number of patients lung nodule can be a very early stage lung cancer or it can be secondary deposit from another cancer that has spread from somewhere else in the body.

What symptoms or issues these lung nodules can cause?

1. Nodules are often very tiny and do not cause any symptoms
2. These do not affect the functions of the lungs
3. These do not cause any breathing issues

What is the treatment for a lung nodule?

Your CT scan will be discussed in a multidisciplinary team meeting. Sometimes it is very clear from the CT scan that your lung nodule is benign and it does not need any further treatment or surveillance. Most of the times, tiny nodules are kept under surveillance and your physician will decide about the duration of surveillance CT scan based on your history.

Decision regarding further treatment or surveillance is usually based on:

1. Characteristics of the nodule
2. Your age
3. Smoking status
4. Your general health status (presence of other co-morbidities)

If the nodule looks suspicious or changes characteristics on surveillance scans then you will have another type of CT called PET CT scan and then a biopsy if indicated. Eventually cancerous/ malignant nodules are removed via surgery. A thoracic surgeon will decide about the surgical modality.