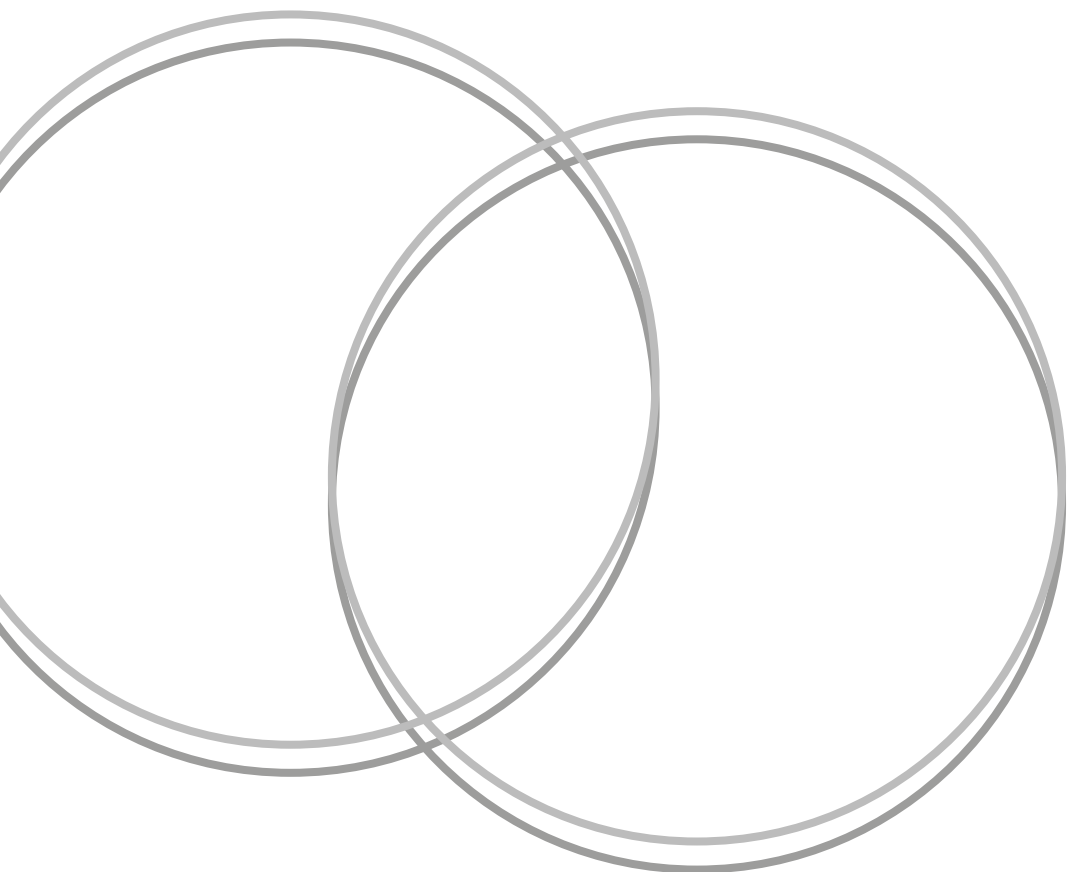




Oxford University Hospitals
NHS Foundation Trust

Lung Nodule Service

Information for patients



**Respiratory Medicine
and Radiology**

What is a lung nodule?

Commonly called a “shadow on the lung,” a nodule is a round area that is more dense than normal lung tissue. It shows up as a white spot on a CT (Computerised Tomography) scan. Lung nodules are usually caused by scar tissue, a healed infection that may never have made you sick, or an irritant in the air. Sometimes, a nodule can be an early lung cancer. Fortunately, most lung nodules are not a sign of lung cancer and are benign.

What causes lung nodules?

Lung nodules can be caused by:

- Old scars
- Infections (current or old)
- Inflammatory lung diseases e.g., Sarcoidosis/Rheumatoid arthritis
- Smoking
- Dust exposures
- Early cancer
- Other causes.

More than 95% of nodules are benign, meaning they are not related to cancer and generally these do not cause any problems nor symptoms. The smaller the nodule the less likely it is to be cancerous.

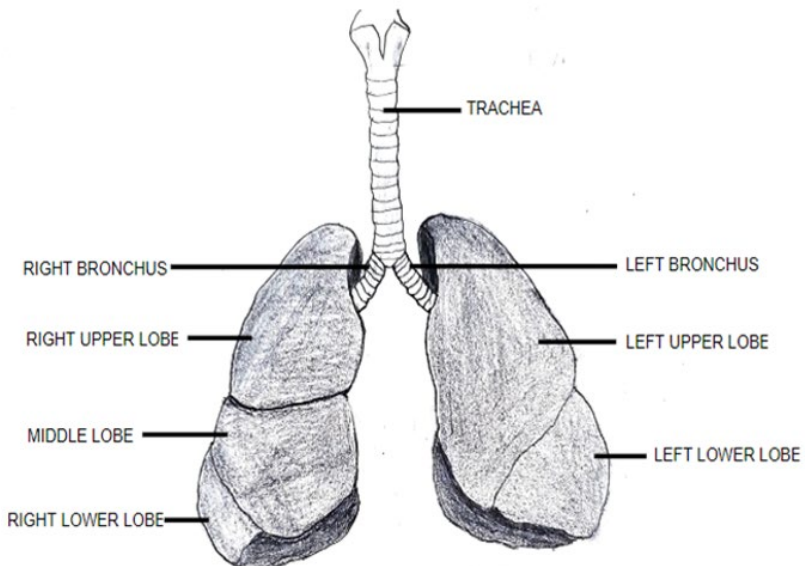
What is the chance that the nodule is an early lung cancer?

Fewer than 5% of all nodules turn out to be cancer. Cancer is more likely in patients who:

- are older
- have a larger nodule
- have 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.

What do your lungs look like?

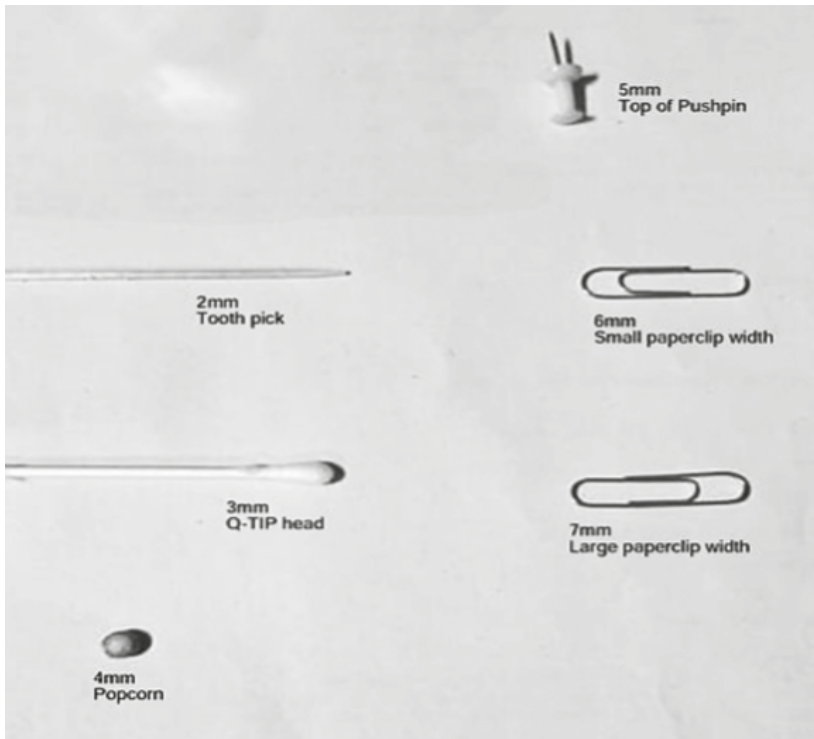


What size nodule do I have?

Below is a chart to help you visualize your nodule size.



Below are measurements comparisons with some household items:



What tests might happen next?

Once you have been found to have a pulmonary nodule, we will assess your individual risk factors to determine any further tests that you may require.

A follow up CT scan is often carried out to monitor any subtle growth in the pulmonary nodule. The frequency of these scans will be determined using international guidelines, but often involves 2 to 3 further CT scans over a 2 to 4 year follow-up period. Sometimes follow-up can extend beyond 4 years.

In general, if the nodules have not grown over the period of follow-up, international guidelines suggest stopping follow up scans as it is extremely unlikely for nodules to grow beyond this period.

In a small number of cases where a nodule grows, further tests may be required to help decide if this is an early cancer.

We will write or call you with results and updates after your scan has been reported.



A patient having a CT scan is imaged above.

Exposure to radiation

During CT scans you will be exposed to X-ray radiation. We are all exposed to background radiation from the ground, building materials and the air, every day of our lives, this is normal and natural. Medical X-rays give an additional dose and the amount of radiation you are exposed to during a CT scan varies, depending on how much of your body is scanned.

Generally, the amount of radiation you are exposed to during each scan will range from the equivalent of a few months to a few years of exposure to natural radiation from the environment. It is thought exposure to radiation during CT scans could slightly increase your chances of developing cancer many years later, although this risk is thought to be exceedingly small (less than 1 in 1,000).

The benefits and risks of having a CT scan will always be weighed up by your doctor and the specialists in Radiology before your CT scan, to ensure that this is the best procedure for you to have to diagnose (or treat) your condition. The Radiographers always ensure that the radiation dose is kept as low as possible and CT scanners are designed to make sure you are not exposed to unnecessarily high levels.

For more information, read GOV.UK: patient dose information:
www.gov.uk/government/publications/medical-radiation-patient-doses/patient-dose-information-guidance

What can happen to nodules?

Over time, a nodule can remain stable, it can grow, or it can shrink or even disappear.

The longer a nodule is stable, the more reassured we are, meaning if the first follow up CT scan shows no change, the chance of future growth is less. The smaller a nodule is, the lower the risk that it may develop into cancer.

What if my nodule is cancer?

If your pulmonary nodule does turn out to be a lung cancer, it is most likely an early-stage lung cancer for which there are many treatment options, usually with the intention to cure, rather than just slowing it down.

If this happens, you will be referred to the Respiratory Early Diagnosis Nurses and Lung Cancer Nurses.

We will call or invite you to the clinic to discuss this further.

What if I'm still smoking?

Pulmonary nodules have increased potential to become cancerous with continued smoking.

Quitting smoking is one of the most important lifestyle changes that you can make to improve your long-term health and to reduce your risk of lung cancer.

If you are a smoker, we strongly recommend smoking cessation as this might improve the prognosis of lung nodules.

Please contact the **Smoking Cessation Service**:

Website: smokefreelifeoxfordshire.co.uk

Telephone: 01869 814216 or 0800 2461072

We can talk through this with you also and provide advice if you contact us.

Please contact the Community Smoking Cessation Service:

Website: stopforlifeoxon.org

Telephone: 08001 223 790 or

Text: STOPOXON to 60777

Summary

- Most small nodules are not cancer, and the majority are simply incidental old scar tissue in your lung that rarely causes any symptoms.
- Most patients with small nodules will need follow up CT scans.
- The smaller the nodule, the lower the chance of it being cancer.
- The longer a nodule is stable on CT, the less chance of it being something sinister like an early cancer.
- If your nodule turns out to be cancer, you will have the support of the Respiratory Early Diagnosis Nurses and Lung Cancer Nurses.
- We will be in contact with you either by letter or calls to give you updates about appointments and results.
- If you are still smoking, quitting is the most important lifestyle change you can make.
- Please share your concerns with us.

Have any questions or worries? Here's how to contact us:

Contact number: 01865 226 441.

Our working hours: 8:30am to 4:30pm, Monday to Friday
(except bank holidays)

Email: LungNoduleService@ouh.nhs.uk

Meet the team:

Our specialist nurses:

Joanne Yates - Lead Specialist Nurse

Adedamola Falolu - Specialist Nurse

Our Administrator:

Yen Duong – Administrator

Our consultants:

Rachel Benamore - Radiology Consultant

Ambika Talwar - Respiratory Consultant

Alastair Moore - Respiratory Consultant

John Park - Respiratory Consultant

Survey

We would appreciate your feedback so we can improve our service, provide excellent care and support for you.

Your satisfaction is important to us! Please copy the link below or use our QR code to tell us about your experience:

Website: <https://forms.office.com/e/J1fnZkjnr8>



Your opinion is very important to us

Whether you are happy or unhappy with the care and treatment that you have received, we would like to know about it.

You can leave your comments in our survey above or contact:

PALS (Patient Advice and Liaison Service)

staff are available 9.00am to 5.00pm, Monday to Friday.

Email: PALS@ouh.nhs.uk or call: 01865 221 473

Research

Our department is actively participating in Lung Nodule Research. As such, we may ask you to participate in one of our studies. This often includes only using your scans or investigation results. It may occasionally involve someone from the research team contacting you.

Please let us know if you do not wish to be contacted about our research studies.

Research team contact details:

Email: radiology.research@ouh.nhs.uk

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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Oxford University Hospitals NHS Foundation Trust
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