



# NUCLEAR MEDICINE LUNG VQ SCAN PREGNANCY

## Patient Information

### What is a lung VQ scan?

A lung VQ scan looks at the air supply and blood supply to the lungs. It determines the likelihood of having a pulmonary embolism, a blood clot in the lung.

### Preparation

There is no special preparation for the examination, but we may need to have your chest x-rayed if you haven't had a recent chest x-ray. You may eat and drink normally before your appointment. You can take any medication as usual. Please let us know if you have ever been diagnosed of having L-R Shunts (small hole in the heart), Pulmonary Hypertension and/or any allergies to Albumin.

### Chaperones

All patients are entitled to have a chaperone present for any consultation, examination or procedure where they feel one is required. This chaperone may be a family member or friend. On occasions you may prefer a formal chaperone to be present (ie. trained member of staff).

### The examination in pregnancy

Your lung examination has two parts – one that looks at the ventilation (airflow) into the lungs and one that looks at the perfusion (blood flow) to the lungs.

However because you are pregnant, it is not always necessary to do both parts of the examination. In order to reduce the radiation dose to foetus we will perform the blood flow part of the scan with reduce dose on the first day. If required, we will perform the second part (airflow part) of the study on the following day. This would be performed the next day as it allows us to reduce the amount of radiation you receive.



Upon your arrival a radiographer will explain the procedure to you and will ask you a few questions about your health records. We will perform the lung perfusion scan on the first day, which involves a small amount of radioactive tracer to be injected into a vein in your arm while lying down on the scan table. The injected tracer is carried through the bloodstream to your lungs and a series of images are acquired. The tracer injected will emit gamma rays which can be detected by a piece of equipment called a gamma camera. The machine is very quiet and you do not go through a tube or tunnel.

You do not need to undress for the examination, but you may need to remove metal objects from your clothing or upper pockets, such as jewellery and/or belts as these will interfere with the quality of the pictures.

If required, you will return the next day for the second part of the scan, the ventilation scan. You will be asked to lie down and to breathe in a small amount of a radioactive gas through a mouth piece. The gas will not make you feel any different and does not have any side effects. After inhalation you will then be taken into the scan room, positioned on the scan table and another series of pictures are taken of your lungs.

### **How long will it take?**

Each set of scans takes approximately 20 minutes.

### **Who will be present?**

Your scan will be performed by a Nuclear Medicine trained member of staff which stays with you in the room while scanning. In addition we might have students in our department, and they will observe the procedure if you give your permission.

### **Can I bring a friend or relative with me?**

You can bring a friend or relative with you and they may accompany you for the injection or scan. Because our waiting room is very small, we would prefer that you do not bring more than one person with you. It is advisable NOT to have a pregnant woman or any children with you. This is to avoid exposing them to unnecessary radiation.

### **Will the injection hurt?**

The injection is very similar to having blood taken. It will not make you drowsy or prevent you from driving a car.

### **Is radioactivity dangerous?**

The radioactivity we use for our tests only lasts for a short time. The radiation dose from this is substantially less than from the equivalent CT scan. The radiation dose

has been made as low as practicable whilst enabling us to obtain the clinical information required from the study. The extra radiation received by the foetus due to this scan is equivalent to around three months of natural, background radiation received by all of us in the UK.

However, as with any exposure to radiation, there are very small risks to the foetus from the study and these are outlined: the risks to the foetus are extremely low; there is no substantial risk of causing foetal death or malformation or impairment of mental development; there is a very small risk of childhood cancer (1 in 30,000). It is important to note that this risk is low compared to the baseline risk of childhood cancer in the UK of 1 in 500 and the normal risks involved with pregnancy.

The risks outlined above should be balanced against the clinical risks to yourself and the foetus of not having the scan, i.e. not treating an embolus (blood clot).

Please feel free to discuss these clinical risks further with your doctor.

### After the examination

You will be asked to drink more than usual for the rest of the day to help clear the substance from your body. Otherwise you can continue as normal.

### How do I obtain my results?

After this acquisition we will send you back to the team that have referred you to us and they will soon inform you of the results. The results will be sent to the doctor who asked for the examination.

### How to find us

The Nuclear Medicine department is in the main X-ray department at East Surrey Hospital. This is on the ground floor of the hospital, closest to the main entrance. You can also reach the department by following the main corridor from the east entrance.

**Please report to the main reception.**

### Further Information

If you need to cancel, change your appointment or have any concerns/queries about your examination, please contact the Nuclear Medicine department on: 01737 768511 x6001 (Monday to Friday, 9am – 5pm).

Directions, parking and travel information for East Surrey Hospital and Crawley Hospital is available on our website at [www.surreyandsussex.nhs.uk/finding-us/](http://www.surreyandsussex.nhs.uk/finding-us/)

## Gamma Camera Appeal Fund

A gamma camera appeal fund was set up by Mr and Mrs Bell in 1987 in memory of their son David, and it has been supported by local people ever since. Initially the funds were used to purchase our first gamma camera, and since then it has been used to purchase new and updated equipment; it has also been used for continuing professional education so that staff are able to provide an even better level of service to their patients.

If you would like to contribute to the appeal fund, please send a cheque made payable to Surrey and Sussex Healthcare NHS Trust (Gamma Camera). Thank you.

## Contact Us

Surrey and Sussex Healthcare NHS Trust  
Diagnostic Imaging Department  
East Surrey Hospital  
Redhill Surrey RH1 5RH

Nuclear Medicine Department  
Tel: 01737 768511 Ext.6001 (Monday to Friday 9 am to 5pm)  
[www.surreyandsussex.nhs.uk](http://www.surreyandsussex.nhs.uk)

## Patient Advice and Liaison Service (PALS)

Telephone: 01737 231 958

Email: [pals@sash.nhs.uk](mailto:pals@sash.nhs.uk)

Write to: PALS, East Surrey Hospital  
Redhill, Surrey RH1 5RH

You can also ask a member of staff to contact PALS on your behalf.

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This information can be made available in other languages and formats, including in larger text. Contact: 01737 231 958 for help.

Author: Diagnostic Imaging  
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