

Treating your prostate condition by blocking its blood supply (prostate artery embolisation)

Department of Radiology

Information for Patients

Last reviewed: April 2025

Next review: April 2028

Leaflet number: 118 Version: 2

Introduction

This leaflet tells you about the procedure called prostate artery embolization. It tells you the possible risks. This will help you to decide whether or not to have the procedure.

Your pre-assessment appointment

If you are having this procedure as an outpatient you will have an appointment for a pre-assessment. At this appointment you will have some tests such as an up to date blood test. The tests will make sure that everything is suitable and ready for when you have your procedure. Please bring a list of your medicines with you to this appointment. After reading this leaflet, if you have any questions, write them down to remind you what to ask when you come to your pre-assessment.

We will send another appointment on a different day for the procedure.

What is a prostate artery embolisation (PAE)?

Prostate artery embolisation (PAE) is a non surgical treatment to block the arteries that supply blood to the prostate. The prostate is between the penis and the bladder. We do this to treat the enlarged prostates and stop bleeding from it. The procedure uses an X-ray camera to help the doctor inject tiny particles through a thin plastic tube (catheter) into these arteries. This reduces the blood supply and causes the prostate to shrink.

Why do I need this procedure?

Your tests will have shown that you either have an enlarged prostate (benign prostatic hyperplasia (BPH)), or bleeding from your prostate. Your urologist and your GP will have told you about other ways of dealing with this like lifestyle changes and medicine.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals
To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

In the past, severe prostate symptoms were treated by a surgical procedure to cut away or vaporise part of the prostate (transurethral resection of prostate (TURP) or laser surgery).

PAE is another option. It uses local anaesthetic instead of a general anaesthetic. In your case, doctors have decided that PAE may be a better option for you.

Asking for your permission (consent)

The doctor who referred you should have talked to you about the reasons for this procedure and any other options.

You have been referred to a doctor who specialises in X-ray treatments (a radiologist) for this procedure. They will check that you understand why the procedure is being done, what the chances of success are, and the potential risks. You will then be asked to sign a consent form to confirm this.

You should feel that you have had enough explanation before you sign the consent form.

If after talking with your hospital doctor or radiologist you do not want to go ahead with the procedure, then you can decide to say no.

If the radiologist feels that your condition has changed or that your symptoms do not show that this procedure is needed, they will talk to you about this. They will ask that you return to your referring doctor for review.

Important information about blood thinners:

If you are taking medicine that thins the blood (anticoagulants or antiplatelets) you may need to stop taking it or take a different one for a few days.

Please call the Radiology Department for advice as soon as possible. The phone number to call is on your appointment letter and at the end of this leaflet. You will be asked what blood thinning medicine you are taking, how much you take (the dose), and what you are taking it for.

Common examples of these drugs are aspirin, warfarin, clopidogrel (Plavix®), apixiban (Eliquis), edoxaban (Lixiana), rivaroxaban (Xarelto), ticagrelor (Brilinta), dalteparin, enoxaparin and heparin.

Important information before you have X-rays with contrast liquid:

The contrast liquid used in your procedure has iodine in it. Your kidneys remove iodine from your body. It comes out in your pee (urine). If you have kidney dialysis, this will remove the iodine.

Please tell the X-ray staff when you arrive if:

- **You are allergic to iodine or rubber (latex),** or have any other allergies or have asthma.
- **You have had a reaction in the past to a contrast liquid injected into a vein (intravenous contrast).** This is the dye used for kidney X-rays, CT scanning and X-rays of your heart and blood vessels.
- **You are on kidney dialysis or have any problems with your kidneys.**
- **You have diabetes.**

A staff member will ask you questions about your health before the test starts.

How do I get ready for the procedure?

- You can eat and drink as usual unless we have talked to you about having sedation. If you are going to have sedation, we will tell you when to stop eating and drinking.
- You should take your usual medicines prescribed by a doctor, but do not take any medicine you have been told not to like blood thinners.
- For most people, the procedure can be done as a day case. This means you can go home the same day. **Please bring an overnight bag** with you so you have it ready if you do need to stay overnight.

What happens during the procedure?

Getting everything ready:

- We will do the procedure in a special X-ray room. We will ask you to put on a hospital gown.
- We will give you some antibiotics to swallow. This is to lower your risk of getting an infection in your pee (urinary tract infection).
- We will ask you to lie flat on your back on the X-ray table.
- We will put a small plastic tube (cannula) into a vein in your arm. This is so we can give you medicine such as painkillers.
- We put a blood pressure cuff (strap) on your arm. We also put a small peg on your finger. These will all be attached to a monitoring machine to check your blood pressure, your heart rate and your heart health.
- We will keep everything clean (sterile). We clean your skin with antiseptic. This may feel cold. We cover some of your body with sterile sheets.

Doing the procedure:

- We will inject some local anaesthetic into the skin in your groin or wrist. You will feel a stinging pain for a few seconds until the area feels numb.
- We will put a guide wire into the artery in your groin or wrist. We use the X-ray machine to see where this is inside you. This helps us to push it in gently until it gets to your prostate. We will then put a thin plastic tube (catheter) along the guide wire.
- We will inject a liquid that shows up on X-rays (contrast liquid) down the catheter into the prostate arteries. We will then use the X-ray machine to take pictures of your prostate arteries. This will show how they connect and their size and shape. It will show the arteries that are feeding your prostate and need treating. The injection may give you a warm feeling in the pelvis. Some patients get a metallic taste. This usually only lasts about 1 minute.
- When everything is in the right place, we will inject fluid containing thousands of tiny particles through the catheter into these small arteries. These particles will block the small arteries feeding the prostate. This will cut off it's blood supply.
- We will then do the same procedure on the other side of your prostate. We can often do this using the same catheter that is already in your wrist or groin. Sometimes we may need to put a new one in your other wrist or groin.

At the end of procedure:

We will take catheter out at the end of the procedure. We will either press firmly on the entry point of your skin for about 20 minutes, or insert a plug device to seal the artery. This is to prevent bleeding and bruising. If we use a plug device, we will give you more information about it at the time.

How long will the procedure take?

Every patient is different. It is not always easy to know how complex or straightforward the procedure might be. You can expect to be in the department for about 2 to 3 hours.

What happens after the procedure?

- We will take you to a recovery area.
- Nursing staff will do routine checks, such as taking your pulse and blood pressure. This is to make sure that there are no problems. They will also look at the entry point on your skin to make sure there is no bleeding.
- After this we will take you back to the ward until you are able to go home.
- Most patients are able to go home the same day. Some patients will need to stay overnight. You will need another adult to travel home with you.

What aftercare advice should I follow at home?

You can eat and drink as normal.

You should regularly check the area on your skin where the catheter was put in (puncture site).

If you had sedation please follow the advice below:

For 12 hours: you must have a responsible adult with you.

For 24 hours:

- do not drink alcohol.
- do not operate any machines or do anything which needs skill or judgement.
- do not make important decisions or sign any documents.
- do not climb ladders.

For all patients - for 2 days after your procedure:

- do not drive a vehicle or ride a bike.
- do not do any strenuous exercise or heavy lifting.

For up to 1 week after the procedure you may feel very tired. Some people feel better after a few days. We advise that you rest for 1 week. After this you can go back to work and your normal activities.

If you have any problems after you have gone home please see your GP or call the NHS helpline on 111.

Are there any risks from this treatment?

As with any procedure or operation, there is a risk of complications. They are different for each person. We have included the most common ones below. We will talk to you about your risks before you sign the consent form.

- **Bruising:** it is common to have a small bruise (haematoma) where the needle went into the artery. This will normally be sore and uncomfortable for a few days. If this becomes a large bruise there is a risk of infection. You may need to have antibiotics.
- **If you notice a lump or swelling at the site of the needle puncture into the artery, you must apply pressure and call the NHS helpline on 111 or 999. Or call the Urology Emergency Admissions Unit on 0116 258 4247, Monday to Friday, 9am to 5pm (outside of these hours call 0116 258 8293).**
- **Pain:** most patients feel mild pain afterwards. You can use simple painkillers for this.
- **Not being able to pee (pass urine):** some patients are unable to pee so cannot empty their bladder (urinary retention). The risk of this happening is very low. This happens because the prostate can become more swollen straight after the procedure. This can make passing urine more difficult. If this happens, we put a flexible tube (urinary catheter) into your bladder to empty it. You have this catheter until the swelling settles down.
- **Urinary tract infection:** there is a small risk of getting an infection. We lower your risk by giving you a short course of antibiotics to take by mouth.
- **Blood in your pee or poo:** you may notice a very small amount of blood in your pee or poo. This should settle down by itself. If the bleeding becomes excessive, you get worsening pain or a temperature, you should call the NHS helpline on 111 or ward 23 at Glenfield Hospital on 0116 258 3700 urgently.
- **Damage to the bladder, genitals and inside the bottom (rectum) (non target embolisation).** There is a chance that the small particles used to block the prostate arteries go into nearby arteries. This can reduce or block blood supply to normal tissue. To try to avoid this, the doctor looks carefully at the pattern of the blood vessels in the pelvis on the X-ray pictures. Despite this there is a very small risk of injury to the bladder, rectum and genitals because they are very close to the prostate. These risks appear small and the doctor will talk to you about this before you sign a consent form.
- **Reaction to contrast liquid:** some patients may be allergic to the contrast liquid. You could get symptoms such as feeling or being sick (nausea or vomiting), or a rash. Any side effects usually happen within 20 minutes. If you get any of these symptoms at the hospital, tell the doctor, nurse or other staff looking after you. If you develop symptoms at home you should contact your GP or call 111.

How successful is this treatment?

Over 7 out of 10 men (70%) see an improvement in their symptoms after PAE. Their prostate becomes smaller and they are able to pee better (increase in urinary flow rate).

In about 1 in 10 men (10%) this procedure is not successful because the prostate arteries are too small or they bend in and out too much (tortuous). For some men, TURP surgery may be offered.

When to get help:

Please contact the Urology Emergency Admissions Unit (0116 258 4247, Monday to Friday, 9am to 5pm (outside of these hours call 0116 258 8293) if you get:

- new bleeding when you pee or poo
- pain that is not controlled with painkillers

Go to your nearest Emergency Department (A&E) if you get:

- new symptoms in your legs such as pain or change in colour
- increased swelling or bleeding from your groin

What are the risks from exposure to radiation in this procedure?

The main risk from having X-rays is a higher risk of getting a cancer in the future. This risk is thought to be very small. We are all exposed to natural background radiation every day of our lives. This comes from the sun, food we eat, and the ground. Each test that uses X-rays gives a dose on top of this natural background radiation.

The benefits of having this procedure are likely to outweigh any possible risks. The risks of not having the procedure could be greater. We try to keep your exposure to X-rays as low as possible.

What if I need to talk to someone?

If you have any questions or concerns, or cannot make the appointment:

Please call the Radiology department on **0116 258 8765** and select **option 7**. Monday to Friday 9am to 5pm, but not on bank holidays.



اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل

જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ 'ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ।

Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email equality@uhl-tr.nhs.uk