

Prostate artery embolization (PAE)

Radiology

What is the aim of this leaflet?

The aim of this leaflet is to explain the procedure for patients undergoing a prostate artery embolization (PAE). This leaflet is not meant to replace informed discussion between you and your doctor, but can act as a starting point for outlining risks and benefits.

What is prostate artery embolization (PAE)?

PAE is a non-surgical way of treating an enlarged prostate by blocking off the arteries that feed the gland and making it shrink, to help improve your symptoms. This is performed in the radiology (X-ray) department.

Why do I need a prostate artery embolization?

Other tests you have had done have shown that you have an enlarged prostate, and this is causing you considerable symptoms. An embolization will shrink the gland and reduce your bladder symptoms.

Who has made the decision?

The choice about which treatment is best for you will be made together with your doctor. This will be based on the risks and benefits of the treatment and your individual circumstances.

Consent

We must seek your consent for any procedure or treatment beforehand. A written consent will be obtained from yourself, by a doctor, to give permission to have the procedure carried out.

Your doctor will explain the risks, benefits and alternatives where relevant before you sign the consent. A referral will be made and your appointment will be arranged. If you are unsure about any aspect of the procedure or treatment proposed please do not hesitate to ask for more information.

What are the potential benefits of having a prostate artery embolization?

- Reducing the size of the prostate
- Making passing water easier
- Possibly reducing the need for surgery

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

What are the potential risks of having a prostate artery embolization?

Serious complications from embolizations are uncommon but, please be aware of the following:

- Bruising around the puncture site
- If the bruising becomes inflamed and uncomfortable it may be a sign of infection which can be treated with antibiotics. If you are unsure please visit your GP
- Pain post procedure
- Very occasionally a urinary catheter may need to be placed for urinary retention
- Non-target embolization with damage to the bladder and rectum, these risks are very rare and will be discussed at the time of your consent
- Death as a result of the procedure is extremely rare
- **Radiation:**
Ionising radiation may cause cancer many years or decades after the exposure. We are all at risk of developing cancer during our lifetime. 50% of the population is likely to develop one of the many forms of cancer at some stage during our lifetime. It has been estimated that undergoing this procedure may increase the chances of this happening to you to about 0.1 %. The requesting doctor and the doctor that will be performing your examination feel that the benefit of having the test or treatment outweighs the risk from the exposure to radiation
- If you have further questions about the risk of exposure to radiation, please talk to your doctor during consent

Contrast agent: The “dye” that is used to show up the blood vessels can have side effect for a minority of patients:

- 3 in 100 patients experience nausea and hot flushes
- 4 in 10,000 may have more serious effects including breathing difficulties

If a side effect does occur the doctors, nurses and radiographers are trained to deal with it.

Are there any alternative treatments and what if I decide not to have it done?

The consultant in charge of your care will discuss the alternatives with you. They will also discuss the consequences of no treatment.

Are there any special preparations required?

Prostatic artery embolizations are usually carried out as a day case procedure under local anaesthetic (a medication used to numb an area of the body to reduce pain).

- If sedation (a medication used to produce a state of calm or sleep) is necessary you will be advised to not eat before your procedure but may still drink as normal. The nurse looking after you on the ward will know if your procedure requires sedation or not as it will be discussed during consent
- Bloods will be taken from you to check for any abnormalities and to check your clotting
- A cannula (a needle with a clear plastic tube) will be inserted on the ward through which fluids, antibiotics and sedation can be given
- If sedation is not to be given, you may eat and drink as normal
- You will be given antibiotics prior to the procedure to reduce the risk of any infection post-procedure
- If you have any allergies or have previously had a reaction to the dye (contrast agent), you must tell the radiology staff before you have the procedure

If you are taking the following medication and the doctor has not discussed them during consent, please contact the X-ray department when you receive this information:

Acenocoumarol, Apixaban, Aspirin, Bivalirudin, Dabigatran, Dalteparin, Danaparoid, Dipyridamole, Edoxaban, Enoxoparin (Clexane), Fondaparinuxm, Heparin, Phenindione, Tinzaparin, Warfarin.

Who will carry out the procedure?

An interventional radiologist will perform the prostate artery embolization. Interventional radiologists are doctors who have special expertise in interpreting the images and using imaging to guide catheters and wires to aid diagnosis and treatment.

Where will the procedure take place?

The procedure will take place in the angiography suite; this is located within the radiology department. This is similar to an operating theatre in which specialised X-ray equipment has been installed.

The angiography suite will liaise with your ward nurse and porters to arrange transport for your procedure.

What actually happens during a prostate artery embolization?

You will be asked to get undressed and put on a hospital gown if you are not already in one. On entering the X-ray room, you will be asked to lie on the X-ray couch flat on your back for this procedure. Routine observations of your heart rate, blood pressure and oxygen levels will be taken during and after the procedure. A team of nurses and radiographers will assist the interventional radiologist during this procedure.

An area in both groins will be cleaned with an antiseptic liquid, and the area covered with sterile drapes, local anaesthetic is injected at the procedure site; this may sting for a few seconds but will then go numb.

The interventional radiologist places various catheters and wires along the artery using X-rays (either computerised tomography or fluoroscopy).

They will also inject contrast agent in order to highlight the arteries leading to the prostate gland.

You may get a warm feeling, but there should be no pain. When the interventional radiologist is happy with the access, embolization will begin. Different treatments can be used for embolization. Both the left and right prostatic arteries will need to be embolized in this way.

All tubes will be removed at the end of the procedure and a closure device (a piece of equipment used to "plug" the hole in the artery) will be deployed and or pressure applied to the puncture site to stop the bleeding.

Will it hurt?

When the local anaesthetic is injected, it will sting for a short while, but soon wears off. Most patients feel some pain afterwards.

How long will it take?

Every patient is different, and it is not always easy to predict; however, expect to be in the procedure room for about two to three hours. Afterwards, you will have to stay on the ward for bed rest and further observations for around four to six hours.

What happens afterwards?

- You will return to your ward
- The nurse on the ward will take your pulse and blood pressure to make sure that there are no problems. They will also look at the skin entry point to make sure there is no bleeding from it
- You will need bed rest for up to six hours, you will then be able to sit up and walk around if there are no complications

What will the advice be when I go home?

The nurse and doctor in charge of your care will give you clear instructions and advice.

Groin access:

- You will / may need to have someone collect you
- You may need somebody to stay with you at home and have access to a telephone for 24 hours following the procedure. This should be discussed with the radiologist before the procedure as this may not be the case for every patient
- Special care must be taken when driving especially if your access site is the groin. Staff will give you further information on the day unit, but we advise you not to drive for the first 48 hours after the procedure. If bruising over the groin is preventing you from breaking quickly and effectively, it is advised you do not drive until the bruise has resolved. Further information can be found on the DVLA website: <https://www.gov.uk/guidance/general-information-assessingfitness-to-drive>
- You will need to continuously check the procedure site for oozing or swelling. It is unlikely that the puncture site will bleed, but if this happens, you should follow the instructions below:
 - Stop what you are doing and lie down
 - Press firmly on the site with your fingers
 - Call NHS helpline on 111 or 999, explain that you have had an embolization and the site is bleeding
- Do not undertake heavy or physical activities for the next 48 hours

All access:

The nurse and doctor in charge of your care will give you clear instructions and advice.

- The ward in charge of your care will give you the correct advice to follow at home
- You will need somebody to come and collect you when the ward is happy for you to go home
- You will need somebody to stay with you at home for 24 hours following the procedure. You will also need access to a telephone during this time
- Special care must be taken when driving especially if your access site is the groin. Staff will give you further information on the day unit, but we advise you not to drive for the first 48 hours after the procedure. If bruising over the groin is preventing you from breaking quickly and effectively, it is advised you do not drive until the bruise has resolved. Further information can be found on the DVLA website: <https://www.gov.uk/guidance/general-information-assessingfitness-to-drive>
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Will I receive a follow up appointment?

A follow up appointment will be made and sent to you in the post in the near future

Trainees

A radiology trainee (qualified experienced doctors training in radiology) or occasionally a student may be present during the examination. If you would prefer them not to attend, please let a member of radiology staff know.

How to contact us

If you have any personal access needs, require wheelchair access or wish to speak to a member of staff for further information please contact the interventional radiology department 01902 307999 ext. 6344 between 8:30pm – 4:30pm as the department cannot help with queries outside of these hours.

Angiography Suite / Interventional Radiology

Second floor radiology
New Cross Hospital
Wolverhampton
West Midlands
WV10 0QP

Patient Advice and Liaison Service

New Cross Hospital 01902 695362
Email: rwh-tr.pals@nhs.net

Further information

Further information about your examination is available from The **British Society of Interventional Radiologists** at:

<https://www.bsir.org/patients/prostate-artery-embolisation>

And The British Society of International Urology Surgeons at:

<https://www.baus.org.uk/patients/information/default.aspx>

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਆਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。