

Division of Imaging

Information for Patients

Internal Iliac Artery Balloon Occlusion during high-risk Caesarean Section

Some Caesarean Sections are associated with increased risk of major bleeding due to the location of the placenta in the wall of the uterus. Internal iliac artery balloon occlusion is a procedure which may help to reduce the amount of blood loss.

What is internal iliac artery balloon occlusion?

The main blood supply to the uterus comes through the internal iliac arteries. During internal iliac artery balloon occlusion, fluid-filled balloons are inflated within the internal iliac arteries in order to stop the blood flow. The balloons are deflated and removed at the end of the operation so that normal blood flow is restored to these arteries.

Why should I consider internal iliac artery balloon occlusion?

Preventing excessive blood loss during surgery is very important. At its worst, excessive blood loss can be fatal. Minimising blood loss during surgery will help with saving lives as well as reducing blood transfusion requirements, thus reducing the possibility of complications and length of stay in hospital.

What happens during an internal iliac artery balloon occlusion procedure?

If you are having a spinal or epidural anaesthetic, this will normally be done first.

- A trained specialist doctor called a radiologist will perform your procedure with a team which will include radiographers and nurses.
- You might be asked to remove certain items of clothing and jewellery.

- The person completing the procedure will ask you to confirm some details including date of birth and pregnancy status.

You will lie on your back on the operating table. The skin in the groin area will be cleaned with antiseptic, draped with sterile towels and numbed with local anaesthetic.

The radiologist will puncture the arteries in the groin with a needle and use this to insert a tube (called a catheter) into the artery. Using the X-ray machine, the radiologist will steer the catheter into the internal iliac artery and check it is in the right place.

This procedure will be done on the right and the left sides in turn. The obstetrician will then start the Caesarean section.

After the baby has been delivered, the radiologist may inflate the balloon at the tip of each catheter to block blood flow and thus reduce blood loss while the operation is completed.

At the end of the procedure, the radiologist will remove the tube from the groin and apply pressure to the groin for a few minutes to prevent bleeding and bruising.

Will I feel any pain?

There should not be any pain associated with the procedure. If you do feel anything, you must inform the radiologist or anaesthetist. After the procedure you may have some bruising in the groin which may cause some aching or discomfort.

Are there any risks with this examination?

Some bruising at the groin puncture sites is inevitable. This generally settles down without further treatment.

Rarely more severe complications occur at the puncture site. These include blockage of the artery to the leg, or a tear in the wall of the artery causing a painful swelling at the groin. These complications may require a further surgical operation to repair the artery.

Radiation risk

Interventional procedures use ionising radiation to form images of your body and provide treatment. Ionising radiation can cause cell damage that may, after many years or decades, turn cancerous. Radiation exposure during interventional procedures is generally regarded as low but higher radiation doses might be necessary in difficult or complex cases.

We are all at risk of developing cancer during our lifetime. The normal risk is that this will happen to about 50% of people at some point in their life. Having this procedure will increase the chances of this happening by a very small amount.

In some higher radiation dose procedures, there can be a risk of skin damage in the localised area, similar to sun burn. If we think that you are at risk of this, we will inform you before you leave the department. The radiologist and radiographer will keep the X-ray dose as low possible.

The radiologist (doctor) will discuss the procedure, including the risks and benefits, with you and you will be able to ask any questions.

Contrast risk

We will need to give you contrast dye to make areas of your body show up more clearly.

The radiographers will complete a checklist to ensure it is safe for you to have the dye and you will be asked to sign this form as a consent, the specific side effects are documented on the checklists that you complete.

The contrast dye that is sometimes used can cause allergic reactions however the staff available will be checking for any risks before we proceed.

How do I prepare for my internal iliac artery balloon occlusion procedure?

No specific preparation is required. Preparation is the same as for a routine Caesarean Section.

Help and support in the department

If you have any medical problem which you feel may affect your safety in the department, or if you feel you may need any assistance, please let us know when you arrive.

Do I need to give my permission (consent)?

The radiologist will ask you if you are happy for the examination to go ahead and sign a consent form. This is called informed consent.

If you do not wish to have the examination or are undecided, please ask the radiologist so that they can answer any questions you may have.

Remember, it is your decision. You can change your mind at any time and your wishes will be respected.

How long will it take?

Placing the balloon catheters takes about 40 minutes.

What happens after the balloon occlusion procedure?

After the tubes have been removed from the groins, the nurses will monitor your pulse and blood pressure and inspect the groin puncture sites from time to time. The nurses will make sure that any pain is adequately controlled.

How effective is internal iliac artery balloon occlusion?

It is difficult to be certain how effective internal iliac artery balloon occlusion is.

On the basis of experience gained over several years we believe that internal iliac artery balloon occlusion is helpful in reducing the blood loss during complex Caesarean Section operations, resulting in reduced requirement for transfusion of blood and blood products and reduced risk of complications.

What should I do if I have a problem?

If you feel your condition has changed, or you need further medical advice before receiving your results/after leaving the hospital, please make an appointment with the doctor that referred you, or in an emergency, go to your nearest Emergency Department (ED).

How can I provide feedback for the appointment I have attended today?

The Division of Imaging welcomes feedback from all our patients. We actively take part in the Friends and Family Test and we complete a patient experience questionnaire every month to obtain feedback on the experiences you have had. Please speak to a member of staff regarding the feedback or there are posters within the department with QR codes so you can complete these online.

Contact us

For contact information please refer to your appointment letter or if you are an inpatient please direct your queries to one of the medical staff on the ward

Language and accessible support services:

If you need an interpreter or information about your care in a different language or format, please get in touch.

Your comments and concerns

If you would like to provide feedback you can:

- Ask to speak to the department lead / manager.
- Write to us: Patient Advice and Liaison Services, 1st Floor, Cobbett House, Manchester Royal Infirmary, Oxford Road, Manchester, M13 9WL.
- Log onto the Patient Opinion website www.patientopinion.org.uk/ click on 'Tell your Story'

If you would like to discuss a concern or make a complaint:

Ask to speak to the department manager – they may be able to help straight away. Inpatients can speak to a senior nurse or manager by contacting the Tell Us Today service on (0161) 701 1999.

Contact our Patient Advice and Liaison Service (PALS) on (0161) 276 8686 email: pals@mft.nhs.uk. Ask for our information leaflet.

We welcome your feedback so we can continue to improve our services.

NHS 111

This service offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

Telephone: 111, 24 hours a day
Website: www.111.nhs.uk

Finally

Some of your questions should have been answered by this leaflet but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Further information can be obtained by contacting the radiology department that is performing the procedure. Do satisfy yourself that you have received enough information about the procedure, before you sign the consent form.