



Imaging



**Brighton and Sussex
University Hospitals**
NHS Trust

Portal pressure measurements

What are portal pressure measurements?

These are a measurement taken between the portal vein and Inferior Vena Cava (IVC) representing the liver's portal pressure.

Background

Portal pressure measurements are taken in order to diagnose and monitor treatment of increased portal pressures caused by liver disease. High portal pressures happen because liver disease can cause increased resistance to blood flow through the liver. Because of this increase in resistance to blood flow, your body makes alternative channels for the blood. Some of these new channels can happen in the oesophagus and/or stomach as 'varices' and can cause bleeding, which may be a cause of blood loss (for example, vomiting blood).

Why do I need this?

The doctors in charge of your case want to diagnose, rule out or monitor certain liver conditions.

Who has made the decision?

The consultant in charge of your case, and the Interventional Radiologist (the doctor who specialises in Imaging Procedures) who will be carrying out the portal pressures measurements will have discussed the situation, and feel that this is the best option for you. However, you will also have the opportunity for your opinion to be taken into account and if, after discussion with your doctors, you do not want the procedure carried out, you can then decide against it.

Who will be performing?

A specialist doctor called an Interventional Radiologist. Interventional Radiologists are experts in using X-ray equipment and in microsurgical techniques.

Where will the procedure take place?

In the Imaging Department, in a special Interventional Radiology (IR) Procedure Room which is designed for these specialised procedures. You will be checked into the department by a nurse, who will ask some medical questions and fill out some paperwork. The Interventional Radiologist will then talk to you about the procedure. You will have the opportunity to ask any questions or raise any concerns. Only if you are happy to continue with the procedure will you be asked to sign the consent form.

What happens during the procedure?

It is performed in the IR procedure room. You will lie on a special x-ray table on your back and be covered with sterile drapes.

- Your neck area will be cleaned with an antiseptic solution. Local anaesthetic will be injected to numb the area and stop you feeling pain.
- When the neck is numb, a plastic tube is placed into the vein in your neck which will stay there for the whole of the procedure.
- Then a thin tube (catheter) is positioned into the vein using x-ray guidance. Contrast medium (x-ray dye) is injected into the catheter and viewed on an x-ray screen. This confirms that it is in the right position.

- Then when the catheter is in the right position the radiologist will attach a special tube to the catheter which will be attached to the blood pressure machine in order to take the measurements.
- Once all the measurements have been taken the radiologist removes the thin plastic tube in your vein and the catheter and will press gently on the entry site. This prevents bleeding.
The procedure usually takes around one hour.

How do I prepare?

To prepare for the procedure you will need to make sure you do the following:

You will need to have a blood test before your procedure.

Please let us know if you are taking any **antiplatelet medicines** (for example, Aspirin, Clopidogrel) or any **medicines that thin the blood** (for example, Warfarin), as these may need to be stopped temporarily before the procedure. Call the IR department for advice as soon as you get your appointment letter on **01273 696955 Ext. 4240/4278** and ask to speak to one of the IR nursing team.

If you are taking **medicines for diabetes** (for example metformin) or using insulin, then these may need to be altered around the time of the procedure. Call the IR department on the numbers above for advice as soon as you get your appointment letter.

You cannot eat or drink anything (except water) for four hours before your procedure. You can drink water up to two hours before your procedure.

You will need a responsible adult to take you home or if you are an inpatient you will go back to your bed on the ward.

Will it hurt?

When the local anaesthetic is injected it will sting for a moment but the stinging will wear off, leaving the area of skin numb. After this, the procedure should not be painful. However, if you feel discomfort there will be a nurse with you who will be able to arrange for further anaesthetic if it is required. After the contrast medium (x-ray dye) is injected you will get a warm sensation. You will be awake for the procedure and you will be able to tell the nurse or radiologist if you feel any pain or are uncomfortable in any way.

How long will it take?

Whilst every patient and every patient's situation is different we allow an hour for the procedure.

What happens afterwards?

You will be required to recover in our recovery area either on a trolley and will stay in the department for up to 2 hours after the procedure. The nurses will carry out routine observations, blood pressure, pulse and monitoring of the skin entry point, to ensure there is no bleeding. We will provide you with something to eat and drink if required after the procedure.

Please arrange for someone to pick you up and take you home and remain with you for 24 hours following the procedure, as you **must not drive or use public transport or be at home alone.**

You will need to rest for the remainder of the day. You can then resume your normal activities but should avoid heavy lifting for 48 hours.

Continue with your normal medication as prescribed, unless otherwise advised. If you are having some mild pain you can take over-the-counter painkillers (follow the instructions on the packet).

What are the risks?

Despite the possible complications the procedure is normally very safe. However, the following side effects may occur:

- Bruising in the neck area depending upon where the catheter was inserted. This is rare and usually resolves within a few days.
- Some damage to the vein, caused by the catheter (this is very rare). This may need to be treated by surgery or another radiological procedure.
- There is a small risk of internal bleeding after the procedure: this is why there is a period of recovery after the procedure.

The radiologist will discuss all these possible risks with before the procedure, and you can then decide if you want to go ahead with it.

What are the benefits?

Having the procedure will help your doctor make a diagnosis so that you can get any required treatment.

Scans alone are not always enough to determine the cause or degree of abnormalities, and the best way is to test your portal pressure measurements.

Finally

If you feel you need urgent medical attention or are worried about anything please contact the IR department Monday - Friday 9am - 5pm, your GP, or go to your nearest A&E department.

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 team looking after you.

Make sure you are satisfied that you have received enough information about the procedure before you sign the consent form.

Interventional Radiology:

01273 696955 Ext. 4240/4278

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Disclaimer

The information in this leaflet is for guidance purposes only and is in no way intended to replace professional clinical advice by a qualified practitioner.

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