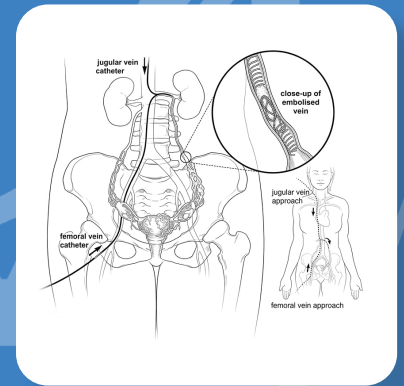


## Patient Information

# Pelvic Venous Disorder and Pelvic Vein Embolisation



## Information for patients

This guide explains pelvic venous disorders and treatment options, as well as what to expect before, during, and after pelvic vein embolisation. It complements - not replaces - conversations with your specialist/medical team.

### 1. Understanding Pelvic Venous Disorder

Pelvic Venous Disorder (also known as Pelvic Congestion Syndrome) is a condition caused by poor drainage of the veins in the pelvis. When the valves in these veins stop working properly, blood flows backwards and pools within the pelvic veins. This creates increased pressure, vein enlargement (varices), and irritation of nearby pelvic structures.

This condition most often affects patients who have had one or more pregnancies, because pregnancy naturally stretches and weakens the veins. Hormones such as oestrogen can also make veins more relaxed and prone to reflux.

In some patients, the veins are compressed where they pass under or between higher pressure arteries— for example, the left renal vein may be compressed by the superior mesenteric artery (Nutcracker syndrome), or the left common iliac vein compressed by the right common iliac artery (May-Thurner syndrome).

The result can be chronic, dull pelvic pain - a sense of heaviness or aching that worsens when standing, sitting for long periods, or after sexual intercourse. Some patients also notice visible varicose veins on the vulva, upper thighs, or buttocks.

## 2. Symptoms

The symptoms can vary but often include:

- A deep, aching pain or heaviness in the lower abdomen or pelvis, often worse later in the day.
- Pain that worsens with prolonged standing or physical activity.
- Pain or pressure after intercourse (dyspareunia) or during periods.
- Visible varicose veins in the vulva, buttocks, or upper thighs.
- Urinary urgency or pelvic pressure.
- Relief when lying down.

These symptoms are due to pooling of blood and high pressure in the pelvic veins.

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## 3. Diagnosis and Imaging

Many patients already have a **pelvic ultrasound**, which show dilated pelvic or ovarian veins. If not, an ultrasound will be arranged.

The main test before treatment is a **CT venogram** of the abdomen and pelvis. This is used to identify the location and size of varices and to map the venous anatomy - providing a “road map” for the procedure.

An initial **diagnostic catheter venogram** with or without pressure measurements (manometry) is performed first as a day procedure in the hospital. This is done to map the dysfunctional veins and assess for compression conditions such as Nutcracker or May–Thurner syndrome.

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## 4. Treatment Options

Treatment depends on the severity of your symptoms and the underlying cause. Options can include:

- **Lifestyle measures** - such as gentle exercise, avoiding prolonged standing, and wearing compression garments.
- **Medications** - hormonal suppression or venotonic agents may be trialled but often provide limited relief.
- **Surgical ligation** - once common, now rarely used.
- **Pelvic Vein Embolisation** - a minimally invasive treatment that seals off the abnormal veins, rerouting blood through healthy pathways and relieving pressure in the pelvis.

How embolisation fits in: It is usually the preferred definitive treatment for pelvic venous disorder. It avoids open surgery and allows for rapid recovery.

## **5. The Embolisation Procedure**

The procedure is performed in an angiography suite, a sterile room with specialised x-ray equipment. In the public hospital setting, you'll be provided medical sedation and local anaesthetic at the access site. Anaesthetic support is provided in the private hospital setting and anaesthetic options can be individualised in discussion with the anaesthetist.

Access is gained through the right internal jugular vein in the neck. A very fine catheter is guided into the ovarian and pelvic veins using x-ray imaging and contrast dye.

A diagnostic venogram is first performed; to map the veins and measure pressures within the vessels if necessary. This is performed as an initial procedure for planning purposes and to facilitate a discussion about treatment options before proceeding with treatment on another day.

A second treatment stage procedure where the abnormal veins are treated by placing tiny metallic coils and medical glue to seal and close them. This stops the backward flow of blood and reduces the pressure causing your symptoms.

The initial diagnostic procedure takes 30–60 minutes. The embolisation procedure usually takes 1–2 hours. You will be admitted as a day patient for both procedures. After a short recovery period you can go home the same day.

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## **6. Preparing for Your Procedure**

On the day of your procedure you need to arrive fasted (no food or drink). The hospital will provide specific instructions.

Blood tests may be done before the procedure to check your kidney function and blood clotting.

If you take blood thinners (anticoagulants), these may need temporary adjustment. Please confirm this with the Hospital and Doctor's secretary before your admission.

The procedure can be performed at any stage of your menstrual cycle.

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## 7. Recovery and Aftercare

You may experience some mild pelvic or flank discomfort for the first 24–48 hours. This is part of the healing process as the treated veins close off. Most patients find simple pain tablets and anti-inflammatory medication are enough.

Bruising or tenderness at the neck puncture site is common but mild.

You can resume normal light activity the next day but avoid strenuous exercise or heavy lifting for 2–3 days.

Driving is usually fine after 24 hours, provided you feel comfortable.

Most patients feel significant improvement in symptoms over several weeks, as the congested veins shrink and pressure settles.

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## 8. Expected Results

About 80–85% of patients report a clear improvement in pain and pressure symptoms after pelvic vein embolisation. Studies show an average **pain score reduction of about five points (out of ten)** after treatment.<sup>4</sup>

Relief may take several weeks to develop fully.

Because hormonal and vascular factors can vary between individuals, a small percentage may have partial improvement or recurrence of symptoms over time.

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## 9. What the Studies Show

Measure	Results	Source
Symptom improvement	80–95%	1, 3, 4
Pain score reduction (VAS)	–5.15 points	4
Technical success	96–100%	4
Major complications	~2% (coil migration most common)	4

**Summary:** Multiple studies and expert consensus show pelvic vein embolisation provides durable symptom relief in the majority of patients, with a low risk of complications and rapid recovery.<sup>1–5</sup>

## 10. Risks and Complications

All procedures carry some risk, though serious complications are uncommon.

### Common and short-term:

- Mild pelvic or flank pain
- Bruising at the access site
- Temporary nausea or low-grade fever

### Occasional:

- Coil migration ( $\approx 2\%$ )
- Vein injury or inflammation
- Allergic reaction to x-ray dye
- Recurrence of symptoms over time

Seek medical help if you develop severe pain, persistent fever, or symptoms that feel unusual.

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## 11. Follow-Up

A follow-up phone or telehealth consultation at around 6 months will review your progress and discuss any remaining symptoms.

Routine imaging is not required unless symptoms persist or recur.

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## 12. Multidisciplinary Care

Pelvic venous disorder overlaps with gynaecological, urological, and vascular conditions. If you already have a gynaecologist, they remain part of your care. Dr Hillhouse maintains close communication with your GP and any specialists involved so that your management remains co-ordinated and holistic.

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## 13. Summary of practical details for your procedure

- Performed personally by Dr James Hillhouse.
- **Procedure:** An initial diagnostic/planning procedure followed by a staged treatment procedure.
- **Access:** right internal jugular vein.
- **Anaesthesia:** sedation + local anaesthetic in the public hospital setting. Anaesthetic support is available in the private hospital setting.
- **Urinary catheter:** most often not necessary.

- **Admission:** day-only; home the same day
  - **Imaging:** ultrasound (usually already done). Pre-procedure CT venogram for vessel mapping. Post-procedure imaging usually not necessary.
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## 14. Frequently Asked Questions

### **Do I need to stay overnight?**

No. This is a day procedure. You can usually go home about 4–6 hours after completion once you've recovered from sedation.

### **Will I have any incisions or stitches?**

No. The procedure uses a tiny puncture in the neck vein (no stitches required).

### **How long will I need off work?**

Most patients return to normal activity in the next day or two. If your work is physically demanding, a few days' rest may help.

### **Can I drive after the procedure?**

You should not drive for 24 hours because of the sedation. After that, it's safe if you feel well.

### **Is fertility affected?**

No. Pelvic vein embolisation does not affect fertility or pregnancy. The coils and glue remain safely inside the treated veins.

### **Will the coils or glue trigger airport metal detectors?**

No. The coils are tiny and non-ferromagnetic. They will not be detected by airport scanners or MRI.

### **Can symptoms come back?**

In most patients, the result is long-lasting. However, if new veins become dilated or reflux develops elsewhere, repeat embolisation may occasionally be required.

### **When will I feel better?**

Some patients feel relief within days; others take several weeks as the veins close and pressure eases.

### **Are there visible scars?**

No. The neck puncture usually leaves only a tiny mark that fades quickly.

## 15. References

1. Knuttinen MG et al. *Diagnosis and Management of Pelvic Venous Disorders: AJR Expert Panel Narrative Review*. **AJR Am J Roentgenol** 2023.
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  3. IRSA. *Ovarian Vein Embolisation – Patient Information Leaflet*. 2022.
  4. de Carvalho CC et al. *Systematic Review of Pelvic Venous Embolisation for Chronic Pelvic Pain*. **J Vasc Surg Ven Lymph Disord** 2023.
  5. Raju S et al. *Atlas of Endovascular Venous Surgery*. 2019.
  6. Brown A et al. *Pathophysiology and Symptoms of Pelvic Venous Disorder*. 2022.
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*Prepared for patients of Dr James Hillhouse, Interventional Radiologist.*

This information is general and should be discussed with your treating clinicians.