

Abdomino-Pelvic Venous Ultrasound Scan



ARTERY AND VEIN DIAGNOSTICS



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Patient Information

1. Understanding Pelvic Venous Disorders (PeVD)

The veins in the abdomen and pelvis form a complex network that drains blood from the uterus, ovaries, bladder, bowel, and pelvic floor. When these veins become enlarged, twisted, or fail to drain properly, blood can pool within them — a condition known as **pelvic venous insufficiency (PVI)**.

PVI is part of a broader group of conditions called **Pelvic Venous Disorders (PeVD)**, which may include:

- Pelvic venous insufficiency
- Pelvic congestion syndrome
- Ovarian vein reflux
- Internal iliac vein reflux
- Nutcracker phenomenon (left renal vein compression)
- May-Thurner syndrome (left iliac vein compression)

These conditions can cause a range of symptoms, most commonly **chronic pelvic pain**.

1.1 What Is Chronic Pelvic Pain?

Chronic pelvic pain (CPP) is defined as **pelvic pain lasting more than six months**, occurring either continuously or intermittently, and severe enough to cause functional impairment or require medical evaluation.

CPP may be:

- Dull, aching, or heavy
- Worse at the end of the day
- Triggered by standing, walking, or lifting
- Associated with menstruation, intercourse, or bowel movements
- Felt in the pelvis, lower abdomen, lower back, vulva, or inner thighs

Pelvic venous insufficiency is a treatable cause of chronic pelvic pain, particularly in women aged 20–50 and is often under-recognised.

1.2 Common Symptoms of Pelvic Venous Insufficiency

You may experience:

- Chronic pelvic pain (often worse with standing)
- A feeling of heaviness or pressure in the pelvis
- Pain during or after intercourse (dyspareunia)
- Worsening symptoms before menstruation
- Visible vulvar or perineal varicose veins
- Lower abdominal bloating
- Lower back or flank discomfort

- Leg varicose veins that originate from the pelvis
- Urinary urgency or pelvic floor pressure

Symptoms often improve when lying down, as venous pressure decreases.

2. Why You Have Been Referred for This Scan

Your doctor may recommend an abdomino-pelvic venous ultrasound if you have:

- Chronic pelvic pain
- Suspected pelvic congestion syndrome
- Vulvar, perineal, or upper-thigh varicose veins
- Recurrent varicose veins after previous treatment
- Symptoms that worsen with standing or prolonged activity
- A history of multiple pregnancies
- Suspected iliac or renal vein compression
- Unexplained lower abdominal or flank discomfort
- Pre-treatment planning for pelvic or lower-limb venous procedures

The scan helps identify the underlying cause of your symptoms and guides treatment decisions.

3. What the Scan Examines

A comprehensive abdomino-pelvic venous ultrasound assesses the **deep abdominal veins, pelvic veins, and ovarian/internal iliac venous systems.**

Your scan will evaluate:

3.1 Ovarian Veins

- Size and diameter
- Presence of reflux (backward flow)
- Dilated or tortuous branches
- Comparison between left and right ovarian veins

Left ovarian vein reflux is common due to anatomical variations.

3.2 Internal Iliac Veins

- Reflux into pelvic tributaries
- Dilated gluteal, obturator, or perineal veins
- Contribution to vulvar or thigh varicosities

3.3 Iliac Veins and Inferior Vena Cava (IVC)

Assessment for:

- May-Thurner syndrome (left iliac vein compression)
- IVC obstruction or narrowing
- Collateral pathways

These findings help determine whether venous compression contributes to symptoms.

3.4 Renal Veins

The scan may assess for:

- **Nutcracker phenomenon** — compression of the left renal vein
- Dilated renal hilum or collateral veins
- Flow abnormalities

This condition can contribute to pelvic venous congestion.

3.5 Pelvic Varicosities

The scan identifies:

- Dilated pelvic venous plexuses
- Tortuous or engorged veins
- Communication with vulvar or perineal varices
- Pathways feeding lower-limb varicose veins

3.6 Lower Abdominal Veins

Assessment includes:

- Epigastric veins
- Abdominal wall collaterals
- Para-uterine and peri-ovarian venous plexuses

These findings help map the full venous network contributing to symptoms.

4. How to Prepare for Your Scan

Most patients do not need extensive preparation. However, to ensure the best possible imaging quality:

- Wear loose, comfortable clothing.
- **Fast for 4–6 hours before the scan.** This reduces bowel gas and improves visualisation of the abdominal and pelvic veins.
- Do not smoke or chew gum during the fasting period, as this can increase bowel gas and interfere with the examination.
- You may take your usual medications with a small sip of water, unless your doctor has advised otherwise.
- Avoid applying moisturisers or oils to the abdomen or pelvis on the day of the scan.
- If you have wound dressings or surgical sites, the sonographer will advise whether they should remain in place or be adjusted.
- If you have difficulty lying flat or turning, please inform the sonographer so we can adjust your positioning.

5. What to Expect During the Scan

A pelvic venous ultrasound is safe, painless, and performed by a highly trained vascular sonographer with advanced expertise in pelvic venous disorders.

5.1 Duration

The scan typically takes **30–45 minutes**, depending on your anatomy and symptoms.

5.2 Positioning

You may be examined:

- Lying on your back
- Slightly turned to one side
- Occasionally standing for specific reflux assessments

Your comfort is always prioritised.

5.3 The Procedure

- Warm gel is applied to your abdomen and pelvis.
- The sonographer gently moves a handheld probe across the area.
- You may be asked to perform breathing manoeuvres (e.g., deep breath in, hold, release) to assess venous flow.
- Some veins are assessed during Valsalva manoeuvre or by squeezing of the leg to detect reflux.
- If you prefer a male or female sonographer, please let the practice know when booking.

5.4 Safety

Ultrasound uses sound waves — not radiation — making it safe for all patients, including those who are pregnant. If you feel light-headed, uncomfortable, or need a break at any time, please inform the sonographer immediately.

6. How the Scan Helps Guide Treatment

Your scan results help determine the most appropriate management, which may include:

6.1 Conservative Management

- Pelvic floor physiotherapy
- Pain management strategies
- Lifestyle modification
- Compression shorts or pelvic support garments

6.2 Minimally Invasive Treatments

Depending on your findings, your doctor may discuss:

- Ovarian vein embolisation

- Internal iliac vein embolisation
- Treatment of pelvic varicosities
- Treatment of vulvar or perineal varices
- Iliac vein stenting (for compression syndromes)

These procedures are typically performed by vascular specialists or interventional radiologists.

6.3 Surgical Options

Surgery is rarely required but may be considered in complex cases or when other treatments are unsuitable.

7. After the Scan

7.1 Review of Images

Your scan images and measurements are reviewed by a vascular specialist or reporting sonographer trained in pelvic venous assessment.

7.2 Report Delivery

A detailed report is sent to your referring doctor, usually within 24–48 hours, and includes:

- Ovarian and internal iliac vein diameters
- Presence and severity of reflux
- Identification of pelvic varicosities
- Assessment of iliac and renal vein compression
- Summary of clinical significance

7.3 Next Steps

Your doctor will discuss the results with you and outline treatment options tailored to your symptoms and lifestyle.

8. Frequently Asked Questions

I am seeing a doctor for varicose veins in my legs, why do I need this scan? Varicose veins in the legs can sometimes be caused or worsened by venous problems higher up in the pelvis or abdomen. An abdomino-pelvic venous scan helps identify whether pelvic or iliac vein reflux, obstruction, or congestion is contributing to your leg symptoms. This ensures your treatment plan targets the true source of the problem and reduces the risk of recurrence after leg vein treatment.

Is the scan painful? No. You may feel light pressure, but the scan is not painful.

Can I drive afterward? Yes. Most patients can drive immediately after the scan.

Do I need to stop medications? No. Continue your usual medications unless your doctor advises otherwise.

Is ultrasound safe for the pelvis? Yes. Ultrasound is completely safe and does not use radiation.

Will this scan treat my condition? No. This scan is diagnostic only. It provides essential information to guide treatment decisions.

9. Why Choose Our Vascular Lab

Australia's most experienced vascular sonographers, with advanced training in pelvic venous disorders and specialists with PhD-level expertise in venous ultrasound and current research.

Examinations performed in accordance with international venous ultrasound standards, ensuring accuracy and consistency.

State-of-the-art ultrasound technology for high-resolution imaging and precise haemodynamic assessment.

Comprehensive, clinically focused reporting to support accurate diagnosis and tailored treatment planning.

Patient-centred care, with an emphasis on comfort, clear communication, and a supportive experience throughout your visit.