

## FREQUENTLY ASKED QUESTIONS (FAQS)

- 1 Why do I need Pelvic Vein Embolisation (PVE)?**

Embolisation is intended to close off the pathologic veins so that blood can no longer flow backwards. This will participate to reduce pain and other symptoms by removing pressure of the bulding veins on surrounding pelvic organs and nerves.
- 2 Who will be performing Pelvic Vein Embolisation and where will it happen?**

The embolisation procedure will take place in the radiology department. It will be performed by an Interventional Radiologist assisted by nurses and a radiographer.
- 3 How long does the PVE procedure take and what happens after the treatment?**

The procedure will take in general between 60-90 minutes but may take longer depending on how many veins require treating. After the treatment, you will have to stay in the recovery area for about 30 minutes, whilst nurses complete routine observations of your blood pressure and pulse. When discharged home, you should arrange for someone to collect you.
- 4 Are there risks associated with pelvic vein embolisation?**

Pelvic vein embolisation is a safe procedure, in less than 4% of cases small haematoma around the puncture site appear. This is quite normal, but if it becomes a large bruise then there may be a risk of it getting infected (less than 1% of cases) in which case you may require antibiotics. In very rare circumstances (1% of cases) one of the coils may dislodge and move to another location during the procedure or at a later date. Removing the coil may quickly correct this.
- 5 Are there any side effects?**

It is usual for patients to experience some pelvic cramps following the embolisation for a few days, but this will gradually improve after the first 24 hours and can usually be controlled with pain relief medication. Most patients will be fully recovered after 1 week.
- 6 How successful is pelvic vein embolisation?**

Pelvic vein embolisation reduces the component of reflux associated with the abnormal pelvic veins and reduces the likelihood of recurrence of leg varicose veins, if present. The procedure is technical successful in 98-100% of cases with recurrence rates of less than 8%. Improvement of symptoms occurs within the first 2 weeks in 70-85% of treated patients. 83% of patients continue to show clinical improvements 4 years after embolisation.

# Pelvic Congestion Syndrome

A Patient Guide



Courtesy of Boston Scientific

**Millions of women suffer from pelvic pain.  
The cause of this pain is often difficult to diagnose.**

This leads to women waiting a long time for treatment. Pelvic pain can be caused by a range of factors from ovarian cysts to pelvic inflammatory disease and adenomyosis. For many women, however, the cause may be Pelvic Vein Congestion Syndrome (PCS), this is a condition where varicose veins in the pelvic area bulge and cause pain. This condition is relatively unknown amongst patients and is not particularly well understood by clinicians.

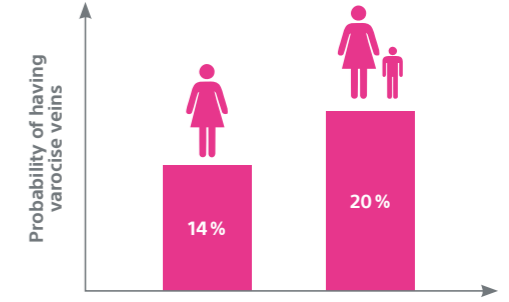
This brochure informs you about effective diagnosis and pelvic vein embolisation as a safe and efficient treatment for more than 20 years.

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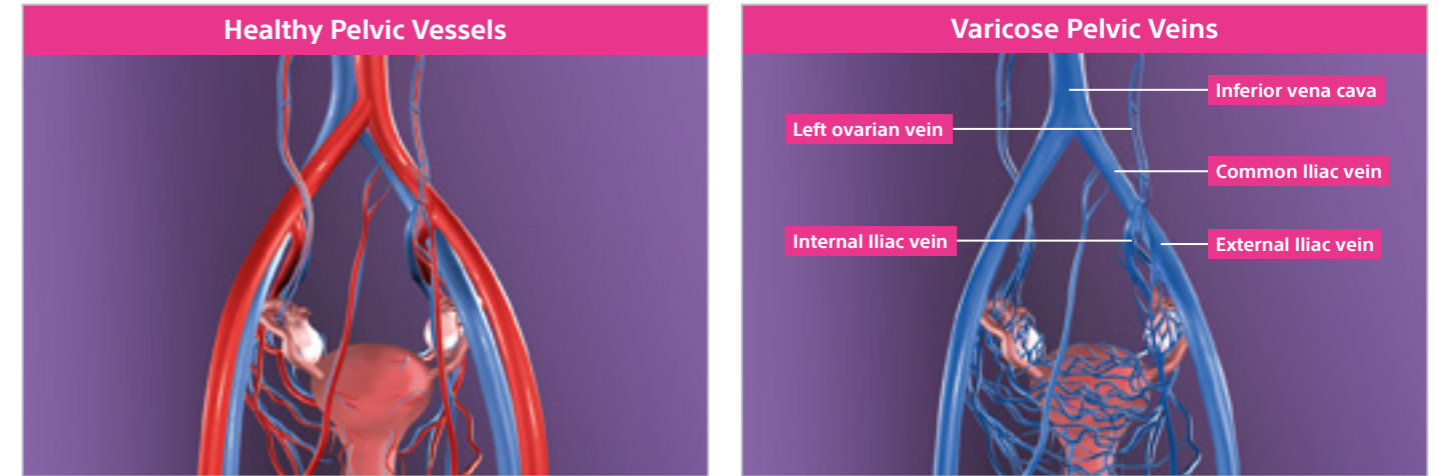
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**WHAT IS PELVIC CONGESTION SYNDROME (PCS)?**

PCS is essentially **varicose veins in the pelvis**. It is the cause of chronic pelvic pain in approximately 13-14% of women<sup>1</sup>. Research has shown that 1 in every 7 women, and 1 in 5 women who have had children, have varicose veins that come from the pelvis.<sup>2,3,4</sup>



Varicose veins are most commonly seen in the legs and are caused by valve malfunction (valves in the veins do not work properly and they do not stop blood from flowing backwards). Veins become less elastic, bulky and enlarged. When this happens to the pelvic veins, visible varicose veins emerge in the pelvic region and the pressure often causes severe pain and discomfort. The varicose veins in the pelvis surround the ovary and can also push on the bladder and rectum.



There are three major vessels involved in the venous drainage of the pelvis – the external iliac vein, internal iliac vein and ovarian vein.

## WHAT ARE THE MOST COMMON SYMPTOMS OF PCS?

Pain is the most common symptom. It usually appears on one side but can affect both sides, worsening while standing, lifting, when you are tired at the end of the day, during pregnancy and during or after sexual intercourse. Veins are also affected by the menstrual cycle/hormones and therefore pain may increase during menstruation. Common symptoms:

- Pelvic pain or aching around the pelvis and lower abdomen
- Dragging sensation or pain in the pelvis
- Feeling of fullness in the legs
- Worsening of stress incontinence
- Worsening in the symptoms associated with irritable bowel syndrome

Symptoms usually improve by lying down.<sup>5</sup>

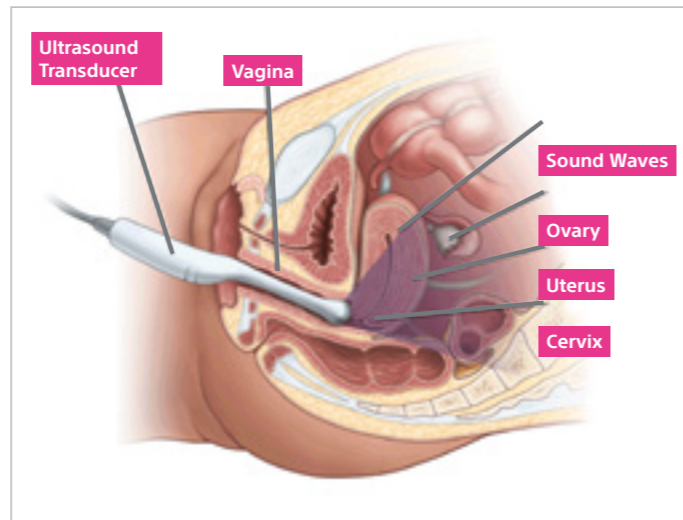


## HOW IS PCS DIAGNOSED?

After other abnormalities and/or inflammations have been excluded, PCS is diagnosed by pelvic investigation scans, an ultrasound scan and a trans-vaginal duplex ultrasound scanning. Ultrasound technology is used in order to examine your abdomen and pelvis and in particular your pelvic veins.

During the scan, the sonographer is looking to identify internal varicose veins associated with four main veins in your abdomen and pelvis. These are the right and left ovarian veins and the right and left internal iliac veins.

Your sonographer will explain any findings and you will then have a follow-up with your Interventional Radiologist who will explain about treatment options.



## WHAT ARE THE TREATMENT OPTIONS OF PCS?

Depending on the patient's symptoms, medical therapy, surgical treatment or embolisation is indicated.



### Medical Treatment

Medical therapy for PCS may include the use of analgetics to control and reduce the pain. Hormones like progesterone or birth control pills can be effective suppressing ovarian activity and thus leading to pain relief. High estrogen levels are suspected to be ligated to PCS.

### Surgical treatment

Surgical treatment options are hysterectomy and ovarian vein ligation. Hysterectomy is performed to remove the uterus and cervix. In PCS treatment, the objective of organ removal is the suppression of ovarian activity. Nevertheless, efficacy is unclear and the treatment bears all risks of an open surgery.

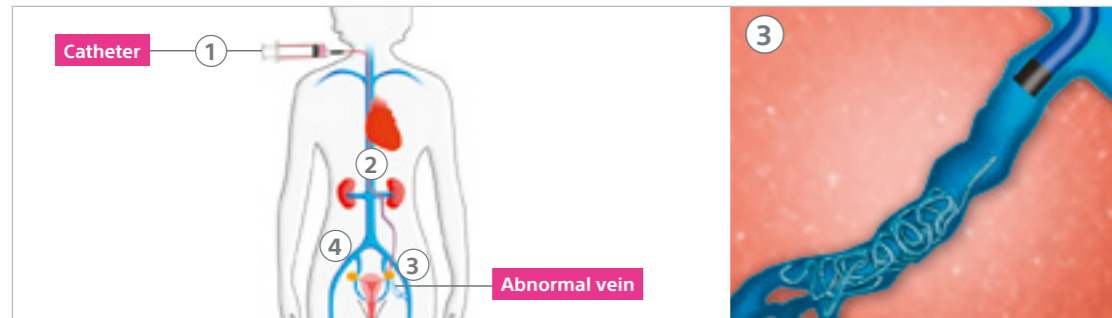
### Pelvic Vein Embolisation

When PCS is diagnosed, embolisation is usually the indicated treatment for about 25 years now. It is a minimal-invasive, non-surgical treatment used to stop the abnormal blood flow causing the painful symptoms. Embolisation has shown a high rate of success in symptom improvement (85%-95%) and represents a safe and efficient treatment.

## PELVIC VEIN EMBOLISATION (PVE): PROCEDURAL DETAILS

In general the embolisation procedure is performed while the patient is conscious but sedated, drowsy and feeling no pain.

- ① A small **opening measuring 1.5 mm** in diameter is made in the jugular, through which a thin catheter is inserted into the vein.
- ② The catheter is guided through the **venous tree** to the pelvis while the radiologist watches the progress of the procedure using x-ray guided venography.
- ③ **Metallic coils will be placed in the abnormal veins**, sometimes in combination with a sclerotizing foam. The coils act like small springs, causing blood to clot around them, subsequently blocking veins.
- ④ It may **be necessary to repeat embolisation** for other veins through the **same opening** and using the same catheter and microcatheter combination.



When all abnormal veins are treated, introducer sheath is removed and the Interventional Radiologist will press on the small puncture site for about 5 minutes to prevent any bleeding.

## A PATIENT STORY

"September 2013 was when I first felt that something was not right with my body. I first noticed my tummy swelling and was very tender to touch. I noticed I needed to go to the toilet a lot more than usual and became extremely exhausted very early into the evening. Panic set in as I was 22 years old. Over an 8-month period I received 16 pregnancy tests; blood, urine and ultrasound, of which all came back negative. My symptoms progressed; I was having lower back pain, and sexual intercourse became extremely painful. May 2014 was when my GP referred me to a Gynaecologist, who thought it would be best to perform a laparoscopy due to my symptoms. In September 2014 I underwent a laparoscopy where it was discovered my left ovarian vein had an abnormal size. It was at this point that I was diagnosed with Pelvic Congestion Syndrome (PCS). I had to take the contraceptive pill for 3 months continuously to relieve pressure on the vein but my symptoms got worse and I had no quality of life. I had no social life.



I found that as I spoke to GPs and consultants about PCS, they dismissed me because I was young and only people "who have had children" have the condition.

After several trials, I was referred to a different hospital this time where, for PCS, an Interventional Radiologist (IR) may be able to do the required procedure. I had an MRI scan and it was confirmed that I had PCS so I was scheduled into surgery for a Pelvic Vein Embolisation (PVE) the next month.

I was in surgery for the embolisation in September 2015 for over 2.5 hours where it was discovered that they could not access the veins. At this point was emotional because I had put my hopes on having a quality of life back. In October 2015 I went back to the NHS hospital the consultant was adamant that because there was no reflux and because I had not had children I couldn't have PCS. I was left feeling completely confused. Did I have PCS or was I back to square one of finding out what caused me to be in a lot of pain?

I was told in surgery about The Whiteley Clinic, that "specialised in my condition" and I got in touch with them. I had a transvaginal scan at the clinic in November 2015 and it was discovered that I had significant reflux within 3 regions, which included a complex left ovarian vein. In January 2016 I went in for the embolisation procedure and since treatment every single symptom I was experiencing has gone and I am back to living a normal healthy life again!

I want to raise awareness of PCS because of this lack of awareness of the condition, not only amongst the public but by medical professionals too as I found myself explaining to my GP as well as other consultants what PCS was. I hope time to diagnosis and treatment can be significantly reduced for all patients suffering from PCS."