

Uterine Fibroid Embolisation (UFE)

You have been diagnosed with “uterine fibroids”. The scientific name is “leiomyoma” - these are benign tumours (growths) arising from the normal cells of the uterine wall. Uterine fibroids are very common - 20% to 40% of women aged 35 and older have uterine fibroids. Many women have no symptoms from their fibroids and are unaware of their presence. Other women experience problems from their fibroids – they are a common cause for heavy periods and can also cause symptoms related to their bulk, such as wanting to pass urine often, constipation, or a sensation of pressure or a lump inside the pelvis.

What treatments are available?

Treatments vary depending on the number, size and location of the fibroids. In many cases it is best to simply monitor the fibroids and not to actively intervene. This is called conservative management. If fibroids need active treatment there are a number of possibilities. Gynaecologists can remove the fibroids from the uterus (myomectomy) or it may be appropriate to remove the uterus and fibroids together (hysterectomy). Interventional radiologists can treat fibroids by uterine fibroid embolisation (UFE). Each of these procedures have advantages and disadvantages - your doctors will explain all this to you and will help you decide which procedure is best suited to your particular problem.

What is uterine fibroid embolisation (UFE)?

Uterine fibroid embolisation (UFE) is a minimally invasive radiological technique performed by interventional radiologists and involves blocking the arteries going to the fibroids. These are called

the uterine arteries, which is why the procedure is called uterine artery embolisation or uterine fibroid embolisation (embolisation means something blocks the artery).

When the fibroids lose their blood supply they “die”. Once the fibroids die they shrink to around half their size over the next few months. This usually relieves any pressure or mass symptoms, even though the “dead” fibroid has not disappeared completely. If bleeding has been a major symptom this usually resolves within a couple of cycles. The process of fibroid shrinkage after uterine fibroid embolisation is somewhat similar to that occurring normally after menopause – fibroids usually shrink on their own after menopause due to hormonal changes.

How is uterine fibroid embolisation performed?

All the arteries in the body are joined together, so the procedure involves accessing a superficial artery then threading a tiny plastic tube (catheter) to the area that needs to be blocked.

Interventional

The procedure is performed in an angiography theatre where you lie on an X-ray bed with an X-ray “camera” over you to watch what’s happening inside. The procedure is performed under full sterile conditions and typically with twilight sedation.. Local anaesthetic is injected into the overlying skin which feels similar to having a blood test.

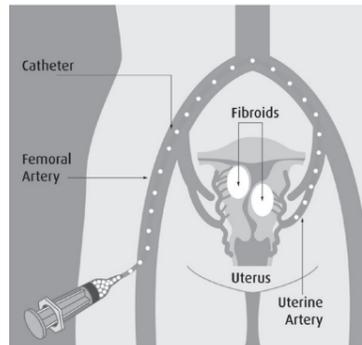
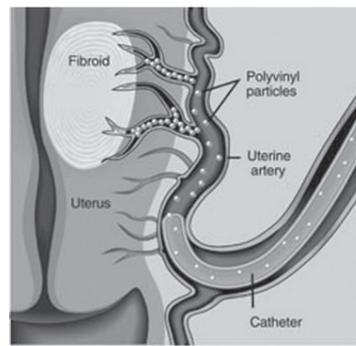
A needle is placed into the artery and this is swapped for a thin plastic tube (catheter). The catheter is then threaded into the uterine artery on one side. X-ray pictures (angiograms) are taken throughout the procedure to make sure we can identify what’s going on at all times.

Once the catheter is in a satisfactory and safe location the uterine artery is blocked using tiny particles that

resemble grains of sand. These particles block the uterine artery territory in much the same way as sand silts up a creek i.e. it is a physical blockade rather than a chemical reaction.

The particles are used for various other procedures all around the body and are very safe.

The procedure usually takes about 1 1/2 hours. The catheter is removed at the end of the procedure. When the fibroid loses its blood supply it can be quite painful in some people necessitating morphine injections or similar treatment. Women have an overnight stay in hospital and are discharged with tablets for pain which may last a few days after which they resume normal activities.



What is the success rate of uterine fibroid embolisation?

Technical success is whether the procedure succeeds in blocking the blood supply to the fibroids. This success rate is almost 100 percent. Clinical success is whether the procedure gets rid of your problems, such as excessive bleeding during periods, need to pass urine often etc. The clinical success rate is higher for heavy periods for bulk related symptoms.

What are the major risks of uterine fibroid embolisation?

Complications are extremely rare. Major complications are less common than surgery. Specific risks of uterine artery embolisation include: death (approximately one in 10,000); irreversible damage to the uterus requiring hysterectomy; irreversible damage to the ovaries causing infertility; unintentional blockage of non uterine arteries with potential damage to pelvic structures, nerves, and legs and major infection. While all of these are very serious, they are rare.

Can there be other problems after uterine fibroid embolisation?

Most women don't have significant problems after UFE. Pain can be a problem for some women. This usually depends on the size of the fibroids - women with large fibroids tend to get more pain. We are aware of this and we have a number of ways of controlling pain so this is usually acceptable.

Dead fibroid tissue may be passed through the vagina after the procedure. This only occurs in some women. It can come as little pieces, which look a bit like blood clots occurring with periods. Very rarely, very large chunks of fibroid can be passed.

Can the fibroids come back?

UFE usually kills all the fibroids that are present. It would be unlikely that any fibroids would survive and continue to grow. It is possible that new fibroids could grow and this same problem can occur with myomectomy.

Is there a risk of cancer?

Cancer is rarely found when women have a hysterectomy for fibroids. Because cancer is so rare it is safe to perform UFE, but we always monitor people afterwards to ensure the fibroids have all shrunk. If any fibroid continued to grow we become suspicious about cancer and recommend further management, which could involve surgery.

What about pregnancy after uterine fibroid embolisation?

We don't have all the answers about this and research is still ongoing. Many successful pregnancies have been reported after UFE, but this does not mean all women would be able to have babies after UFE.

There are a number of issues to consider with fertility: whether you can still have periods and are producing eggs to be fertilised; whether your uterus is able to nurture the baby for the whole nine months of pregnancy; whether your uterus will be strong enough to withstand contractions and labour at the time of delivery.

Obviously, we would avoid UFE if we thought you were going to have problems in any of these areas.

Because of the current uncertainty we only recommend UFE if there are no other satisfactory options. In particular, we recommend myomectomy over UFE if your gynaecologist thinks myomectomy can be performed safely. This is because more is known about pregnancy after myomectomy.

Fertility is a complex issue with many factors to consider. These should be discussed at the time of consultation.

Uterine Fibroid Embolisation procedures are performed at The Wesley Hospital and St Andrew's War Memorial Hospital by Interventional Radiologists Dr Nick Kienzle, Dr Nick Brown and Dr Sean Wallace

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Additional information may be found on the Society of Interventional Radiology's web site:
www.sirweb.org/patPub/uterine.shtml
www.insideradiology.com.au