

# Southern X-Ray Clinics

August 2003

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?

We don't know how many women will have future problems due to fibroids after successful uterine fibroid embolisation - this is one of the many areas currently being researched. UFE usually kills all the fibroids that are present. It would be unlikely than any fibroids would survive and continue to grow. It is possible they could, or it is possible new fibroids could appear and grow. This same problem occurs with myomectomy.

### Is there a risk of cancer?

Cancer is rarely found when women have 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 fibroids continued to grow, we become suspicious about cancer, and recommend further management, probably 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: 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 offer 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.

### How much is known about uterine fibroid embolisation? Is it experimental?

UFE was first performed in 1995, with more than 20,000 procedures having been done since that time. UFE evolved from similar techniques, which had been used for many years, to control life-threatening vaginal bleeding due to cancer or after childbirth. These same embolisation techniques are used throughout the body for various medical problems, so a lot is known about them.

Despite this body of knowledge, there are a number of unanswered questions about UFE. Several trials have been performed and a number of trials are ongoing, so hopefully these questions will soon be answered. We are involved in two of these trials. One of the trials compares UFE with hysterectomy. The other is an international trial, which will follow several thousand women for several years. The FDA (Food and Drug Administration) in the USA has cited this study as an excellent model for assessing new treatments.

Despite these trials and unanswered questions, we know that the results are very good in most women. Questions only arise in some circumstances, as detailed above e.g. pregnancy after UFE. If we thought the procedure was inappropriate or not going to work, it would not be offered. We do not regard the procedure as experimental.

**Uterine Fibroid Embolisation Procedures** are performed at **The Wesley Hospital** by Interventional Radiologist Dr John Clouston

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Additional information may be found on the Society of Interventional Radiology's web site: [www.sirweb.org/patPub/uterine.shtml](http://www.sirweb.org/patPub/uterine.shtml)

## Uterine Fibroid Embolisation (UFE) Patient Information

### General information

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 recent development for the treatment of fibroids. It is a

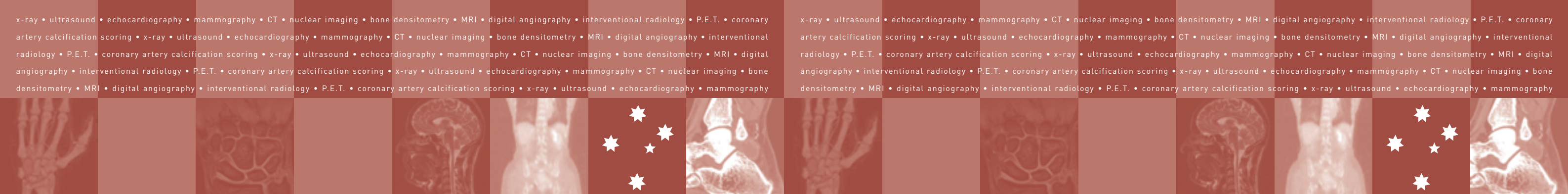
minimally invasive radiological technique performed by interventional radiologists, and involves blocking the arteries going to the fibroids. These are called the uterine arteries, which is why the procedure is called uterine artery embolisation or uterine fibroid embolisation (embolisation means something 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. Sometimes the procedure does not help with your problems, however this is thankfully rare.

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. The remainder of the uterus is not injured by uterine artery embolisation - it continues to receive blood supply by other arteries that are not blocked.

### 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.



Pre procedure antibiotics are given so as to minimise the risk of infection. An anti-inflammatory suppository is also used to reduce post-procedural pain. The procedure is performed in an angiography theatre, where you lie on an X-ray bed and with an X-ray "camera" over you to watch what's happening inside. The procedure is performed with full sterile conditions. Uterine fibroid embolisation involves minimal pain so it can be performed with you fully awake. Some patients prefer a little sedative medicine because of anxiety.

The artery we enter lies just beneath the skin of the groin. Local anaesthetic is injected into the overlying skin, which feels about the same as having a blood test. You should not experience any pain after that - the remainder of the procedure is painless. 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 know what's going on at all times.

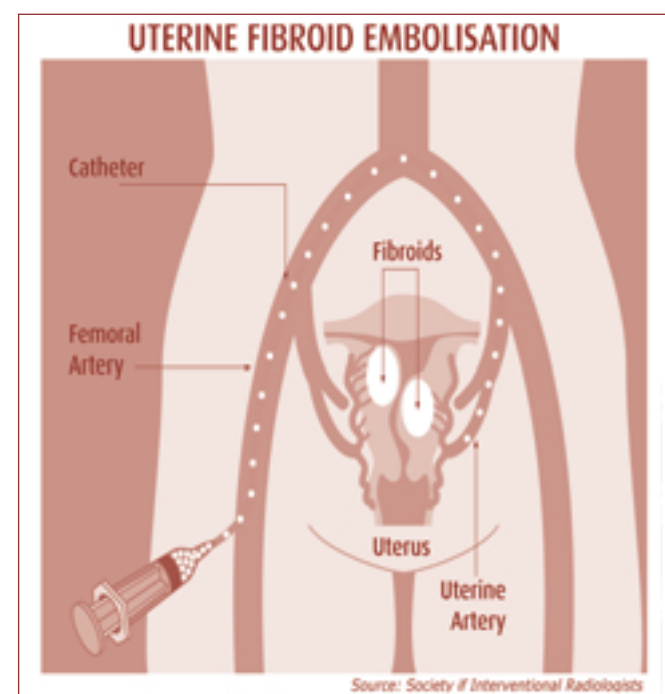


Diagram 1

Once the catheter is in a satisfactory and safe location, that 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 physical blockade rather than a chemical reaction. Various particles can be used. The commonest is polyvinyl alcohol (PVA), which is a very bland material that does not cause any reactions in the body. Other agents are likewise very bland. There are right and left uterine arteries - once one of these is blocked, the catheter is threaded into the other and it is blocked in a similar fashion.

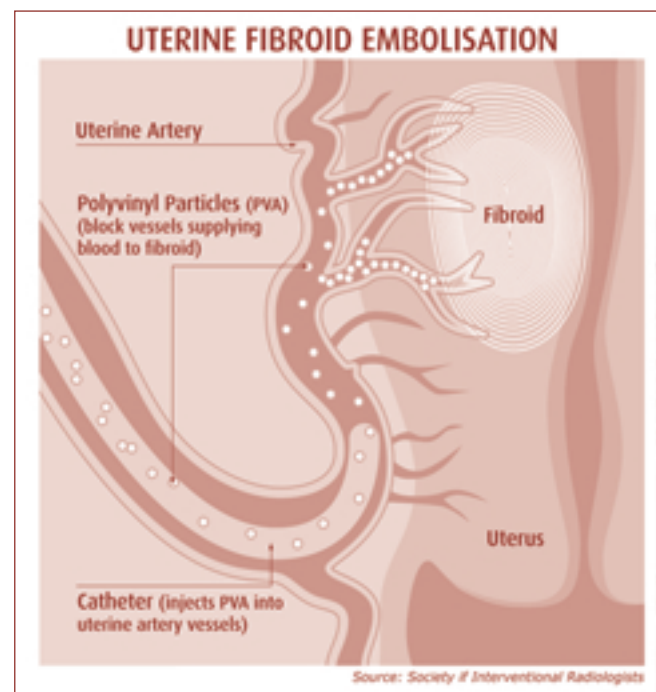


Diagram 2

During the procedure, all catheter movements and injections of particles are carefully monitored to ensure there is no damage and no blockage other than the terminal portions of the uterine arteries. In particular, any connections with the blood supply of the ovaries are meticulously assessed and avoided. This is to avoid ovarian damage and to minimise the risk of infertility.

The procedure usually takes about 1 1/2 hours. The catheter is removed at the end of the procedure. You have to remain in bed for four hours afterwards so that the puncture hole does not bleed. Some patients go home the same day; others remain in hospital because of pain. When the fibroid loses its blood supply, this can be quite painful in some people, necessitating morphine injections or similar treatment. Pain after the procedure is often like "the worst period they had never had", but this is controllable at home with tablets and a hot water bottle. Most women resume normal activities within a few days.

### 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 around 90%. This means most women are happy with the outcome of the procedure. Conversely, 10% of women don't find the procedure helpful. Every effort is made to avoid this by carefully matching the woman's circumstances and problems with the type of procedure chosen, whether it is UFE, myomectomy, hysterectomy or observation only.

### What are the major risks of uterine fibroid embolisation?

The following is an outline of potential risks of UFE - your interventional radiologist will discuss this in detail and you should ask any questions you have about specific points.

Uterine artery embolisation has an enviable safety profile, and is no more risky than uterine surgery. The risks involve general risks of angiography (taking X-ray pictures of the arteries), plus specific risks of uterine artery embolisation.

Angiographic risks include: puncture site complications such as bruising or vessel injury;

artery complications such as blockage or damage where the tube has been threaded; reaction to injected radiographic contrast material.

Radiation is used during uterine artery embolisation. While all radiation doses should be kept to a minimum, the amount used in this procedure is in the acceptable range for any interventional radiology procedure.

Angiography is a common procedure, with all of these risks being very rare.

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; 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.

Women with a lot of fibroid tissue, either because they have very large fibroids or a lot of fibroids, can become quite ill after UFE. This is because the procedure intentionally kills the fibroids, so there can be a lot of dead fibroid tissue for the body to deal with. This can cause prolonged pain, fever, and very sick feeling with no appetite or energy. In cases like this, we consider shrinking the fibroids before UFE, using hormone treatment. This hormone treatment may extend over a few months.