Arterial embolisation of uterine fibroids

This information sheet explains why this procedure is performed, what it entails and the benefits and risks. If you have any other queries please contact the Radiology Department on 0118 322 8368.

What are fibroids?

Fibroids are benign (non-cancerous) growths in the muscle wall of the womb which may cause problems depending on their size and position. Some women with fibroids have very heavy or painful periods, which can severely limit daily activities. By pressing on surrounding structures, the fibroids can cause difficulty passing water, or give a feeling of fullness. Fibroids may occur as single swellings but usually women have several. They can vary enormously in size from the size of a cherry stone to that of a large water melon. Although we do not understand what causes fibroids to develop we know that they are dependent on the oestrogen hormones in the body and after the menopause usually shrink.

How can fibroids be treated?

Fibroids only need treatment if they are causing problems. Many women go through their lives having fibroids without being aware of them or having any gynaecological symptoms. However if treatment is necessary, several options are available.

Drugs

Drugs will not cure fibroids but may relieve some of the symptoms. If periods are heavy, hormones may be used to reduce the amount of blood loss but if the underlying problem is not a hormone imbalance, this treatment may not be effective. If fibroids are causing pain, painkillers may be useful. Your gynaecologist can give you more information about these options.

Surgery

There are two main types of surgery which may be performed to cure fibroids:

- **Hysterectomy:** Hysterectomy means removal of the womb. When the operation is performed for fibroids the ovaries are usually not removed. This is the most effective treatment for fibroids, as there is no possibility that the fibroids can regrow afterwards.
  A hysterectomy is a significant operation with far longer recovery period. Women usually need to stay in hospital for several days after surgery and need to take approximately six weeks off work afterwards.
- **Myomectomy:** Myomectomy is an alternative surgical treatment for fibroids, but is also a significant operation requiring several days in hospital and then six weeks off work. Myomectomy involves cutting the fibroids out of the womb without removing the womb itself. However, as there are often several fibroids, it is not always possible to remove all of them as this would cause too much damage to the remaining womb.

The advantage of this procedure is that as the womb is left behind, so it is still possible to become pregnant. Rarely, when a myomectomy is being carried out, bleeding may be so severe that it is necessary to perform an emergency hysterectomy. All women are warned of this adverse event before a myomectomy is performed.

These particular fibroid treatments are not ideal for all women, particularly if they want to avoid major surgery and the long recovery. Arterial embolisation offers a good alternative for uterine fibroids.

How does arterial fibroid embolisation work?

Fibroids develop in the wall of the womb and receive blood from the same arteries that supply the womb. Usually, new blood vessels grow to supply nutrients and oxygen to the fibroids. The embolisation treatment will block the blood vessels supplying the fibroids causing them to die and then shrink. The blood supply to the womb itself is very rich so the procedure should not damage the normal womb tissue.

What are the benefits of arterial embolisation?

- Uterine fibroid embolisation, done under local anaesthesia and sedation, is less invasive than surgery.
- No surgical incision is needed – only a small nick in the skin with no need for stitches.
- Patients ordinarily can resume their usual activities one to two weeks following the procedure.
- Follow-up studies have shown that approximately 70-80% (7 or 8 out of 10) of women who have their fibroids treated by uterine fibroid embolisation experience either significant or complete resolution of their fibroid-related. Treatment success is slightly more favourable in treating heavy bleeding than pressure related symptoms. On average, fibroids will shrink by one third of their original volume.
- Follow-up studies over several years have shown that it is rare for treated fibroids to regrow or for new fibroids to develop after uterine fibroid embolisation. This is because all fibroids present in the uterus, however small, are treated during the procedure.

What does the treatment involve?

The treatment is performed in the Radiology Department at the Royal Berkshire Hospital under sedation. You are given a sedative injection, so you are still awake but very relaxed. Local anaesthetic is injected either into the skin crease at the top of the thigh or wrist and a flexible plastic tube (catheter) is inserted into the artery. This tube is navigated through the body into the arteries supplying the womb (uterine arteries). By injecting a special dye it is possible to see the blood vessels supplying the different parts of the womb and the fibroids. Once the blood supply has been identified, fluid containing thousands of tiny particles, similar to grains of sand, is passed through the plastic tube into the small arteries which supply the fibroids. Local anaesthetic is then injected into the uterine arteries as this significantly reduces pain following the procedure.

There is one artery on either side of the uterus and both are treated during the procedure which lasts approximately 60 minutes. No stitches are necessary.

What happens afterwards?

You will usually experience pain in your pelvis similar to moderate to severe period pain. In some patient this is very severe, in others it is mild. To control this, you will be given a combination of strong painkilling tablets, including paracetamol, diclofenac, tramadol and morphine. The pain peaks at 6 hours and the following day is much improved, but will persist for several days. You may feel lethargic for a few days and we recommend taking one week off work.

For six weeks following the procedure it is recommended that panty liners/sanitary towels are used instead of tampons to minimise the infection risk, and for the same reason, condoms should be used for sexual intercourse. If you wish to become pregnant following embolisation, we recommend that you wait for 6 months before trying to conceive.

How new is this form of treatment?

Fibroid embolisation has been used to treat fibroids since 1995 and over 700 procedures have been performed at the Royal Berkshire Hospital, one of the first centres to adopt this form of treatment. NICE (the National Institute for Clinical Excellence) recommends that all patients considering fibroid treatment should be offered embolisation.

What are the chances of the treatment being successful?

There is a high chance that the procedure will be performed without difficulty and that it will control your fibroid related symptoms. After one year, 80-90% (8 or 9 out of 10) patients have significant improvement of symptoms, although at five years this is lower, with 70-75% (around 7 out of 10) patients having improved symptoms. Occasionally, if the first treatment has been unsuccessful, some patients choose to undergo a further embolisation. All other surgical options, mentioned in this leaflet, are also available.

Approximately 10-20% (1 or 2 out of 10) women undergoing this procedure will need to have either a repeat arterial embolisation or hysterectomy in the future.

What are the risks associated with fibroid embolisation?

As with any procedure, there are risks and potential complications.

- Any procedure that involves placement of a catheter inside a blood vessel carries certain risks including bruising or bleeding at the puncture site.
- There is 2-3% (2 or 3 out of 100) chance of developing an infection within the womb, which usually responds to a prompt course of oral antibiotics. Very rarely, the infection can be severe and result in an emergency hysterectomy, but the chance of this is around 1 in 1000.
- Approximately 2-3% (2 or 3 out of 100) women will pass small pieces of fibroid tissue after embolisation. This occurs when fibroid tissue located near the lining of the uterus dies and partially detaches. Women with this problem may require a procedure called D&C (dilation and curettage) to be certain that all the loose tissue is removed.

- In the majority of women undergoing fibroid embolisation, normal menstrual cycles resume after the procedure, but can be erratic for a few months. However, in approximately 1-2% (1 or 2 out of 100) women, menopause occurs after embolisation. This appears to occur more commonly in women who are older than 45 years.
- Fibroids are slow growing benign growths of the womb that have usually been present for many years. However, there are rare reports of cancers mimicking fibroids, in which case fibroid embolisation would not offer adequate treatment. In this event, symptoms would usually persist and a follow up MRI scan would be arranged. If there are any unusual or concerning features we will recommend hysterectomy.
- Women are exposed to X-rays during embolisation, but exposure levels usually are well below those where adverse effects on the patient or future childbearing would be a concern.

What about fibroid embolisation and pregnancy?

The question of whether embolisation impacts on fertility has not yet been answered, although a number of healthy pregnancies have been documented in women who have had the procedure. Because of this uncertainty, doctors may recommend that a woman who wishes to have children considers surgical removal of the individual fibroids rather than arterial embolisation. If this is not possible, then embolisation may still be the best option.

Where can I find more information?

- The British Fibroid Trust www.britishfibroidtrust.org.uk/
- British Society of Interventional Radiology has a patient section featuring information on fibroids and the various treatments available www.bsir.org/patients/fibroids/
- Fibroid embolisation, information, support and advice www.femisa.org.uk

Contacting us

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To find out more about our Trust visit www.royalberkshire.nhs.uk

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