

## What Are Fibroids?

Fibroids are non-cancerous growths which develop in the uterus (womb). They are sometimes known as uterine myomas or leiomyomas.

## Why Do Fibroids Develop?

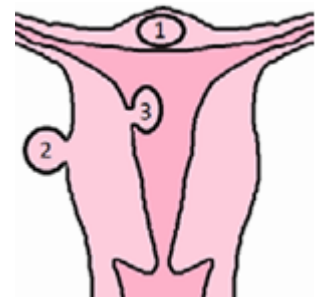
The exact cause of fibroids is unknown, but they have been linked to the hormone oestrogen. Oestrogen is the female reproductive hormone produced by the ovaries (the female reproductive organs). Fibroids usually develop during a woman's reproductive years (from around the age of 16 to 50) when oestrogen levels are at their highest. They tend to shrink when oestrogen levels are low, such as after the menopause.

## Types of Fibroid

Fibroids can be as tiny as a pea or as big as a melon.

They can be classified by their location in the uterus:

- Intramural: [1] within the womb wall. These are the most common.
- Subserosal: [2] grow on the outside of the wall. These can grow very large.
- Submucosal: [3] develop in the womb wall and grow in to the womb lining.



## **Who Gets Fibroids?**

Fibroids are common, with around 1 in 3 women developing them at some point in their life. They most often occur in women aged 30 to 50 and are more common in women of African-Caribbean origin. It is also thought they occur more often in overweight or obese women because of the higher levels of oestrogen from the fat tissue. Women who have had children have a lower risk of developing fibroids, and the risk decreases further the more children you have.

## **Symptoms of Fibroids**

Around 2 out of 3 women who have fibroids will not have any symptoms at all and they may be found by coincidence on a scan. Symptoms will depend upon site and size of fibroids.

Around 1 in 3 women with fibroids will have symptoms such as:

- Heavy periods
- Painful periods
- Tummy (abdominal) pain
- Lower back pain
- Frequent need to urinate
- Pain or discomfort during sex
- Constipation

## **Fibroids and Fertility**

Submucous fibroids can also affect fertility, although it is unclear how. It is possible that a fibroid may prevent an embryo from implanting in the womb, but having fibroids does not necessarily mean you will have trouble conceiving. Fibroids that distort the uterine cavity can contribute to early pregnancy loss. During pregnancy, such large fibroids can outgrow their blood supply and cause pain, as well as making the baby lie in an unusual way (malpresentation). [3]

## **Fibroids and Cancer**

Fibroids are very rarely <0.1% associated with cancer of the womb muscle and these cancers are thought not to arise from the fibroid itself. [4]

## Treatment

If the fibroid is not causing any symptoms, then it does not need treatment. The treatment of fibroids therefore depends on which symptoms you are having.

### Medications to Treat Heavy Bleeding

If you are having heavy periods, these medications can be used to reduce the heaviness of the bleeding but may not necessarily shrink the fibroid itself:

**Mirena® IUS:** The levonorgestrel intrauterine system (LNG-IUS) is a small, plastic T-shaped device placed in your womb that releases the progestogen hormone levonorgestrel. LNG-IUS also acts as a contraceptive, but doesn't affect your chances of getting pregnant after it is removed. It thins the womb lining to make bleeding lighter.

Side effects associated with LNG-IUS include:

- Irregular bleeding that may last for more than 6 months
- Acne
- Headaches
- Breast tenderness
- Periods stop completely

**Tranexamic acid tablets:** They work by stopping the small blood vessels in the womb lining bleeding, reducing blood loss by about 50%. Tranexamic acid tablets are taken 3 times a day during your period for up to 4 days. Treatment should be stopped if your symptoms have not improved by 3 months. Tranexamic acid tablets are not a form of contraception and will not affect your chances of becoming pregnant. Indigestion and diarrhoea are possible side effects.

**NSAIDs:** Non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen and mefenamic acid, can be taken 3 times a day from the first day of your period until bleeding stops or reduces to manageable levels. NSAIDs work by reducing your body's production of a hormone-like substance called prostaglandin, which is linked to heavy periods. They are also painkillers, but are not a form of contraception. Indigestion and diarrhoea are common side effects of NSAIDs.

**Contraceptive pill:** It that stops an egg being released from the ovaries therefore preventing pregnancy. As well as making bleeding lighter, they can reduce period pain.

**Oral progestogen:** These tablets are to be taken day 5 to 26 of your menstrual cycle. They work by preventing the womb lining growing quickly. It is not a form of contraception, but can reduce our chances of conceiving while you are taking it.

**Injected progestogen:** This form of progestogen can be injected once every 12 weeks and also acts as a contraceptive. It does not prevent you becoming pregnant after you stop using it, although there may be a significant delay (up to 18 months) after you stop taking it before your periods resume.

Common side effects of injected progestogen include:

- Weight gain
- Irregular bleeding
- Absent periods
- Premenstrual symptoms, such as bloating, fluid retention and breast tenderness [1]

## **Medications to Shrink Fibroids**

### **Gonadotropin releasing hormone analogues (GnRHAs):**

This is an injectable hormone which temporarily 'switches off' the ovaries by stopping them from making oestrogen. This causes a temporary menopause but your periods and fertility will return to normal after you stop these injections. Side effects include hot flushes and vaginal dryness which can be treated with a small amount of oestrogen HRT. There is an average 36% reduction in fibroid size after 12 weeks of treatment. This medication is only licensed for 6 months and the fibroid may grow back to its original size 4-6months after stopping the injections.

## **Surgery**

If medications above have not been successful or your symptoms are severe, surgery may be offered.

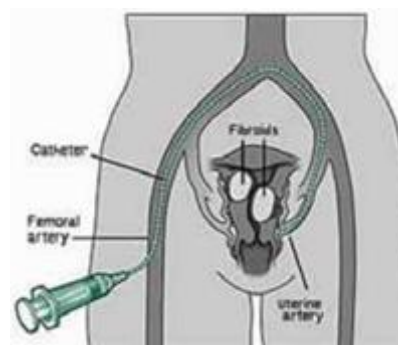
**Hysteroscopic Resection of Fibroid:** A hysteroscope (small camera) and small surgical instruments are passed up through the vagina and cervix in order to remove the fibroid from the inside of the womb. This can be performed for submucosal fibroids (see diagram above) in women who wish to become pregnant. The procedure is often carried out under general anaesthetic, although local anaesthetic can be used. You can usually go home on the same day as the procedure.

**Myomectomy:** If the size and position of the fibroid is suitable, this is an operation to surgically remove the fibroids through keyhole (laparoscopy) or open (laparotomy) operation. This is an alternative to hysterectomy if you would still like to become pregnant. These operations are performed under general anaesthetic and you may need to stay in hospital for a few days. Fibroids can sometimes grow back after myomectomy.

**Hysterectomy:** A hysterectomy is a surgical procedure to remove the womb. The cervix and/or ovaries and tubes can also be removed. It is the most effective way of preventing fibroids coming back. A hysterectomy may be recommended if you have large fibroids or severe bleeding and do not wish to have any more children. This operation can be carried out through keyhole (laparoscopy) or open (laparotomy) routes depending on the size and number of the fibroids. This operation is performed under general anaesthetic and you may need to stay in hospital for a few days. If the ovaries were removed, then this would cause you to have the menopause.

**Uterine Artery Embolisation (UAE):** This procedure is carried out by a radiologist (a specialist doctor who interprets scans) and is performed under local anaesthetic which means you will be awake but the area will be numbed. They insert a small tube (catheter) into the femoral artery in your leg and guide it up to the uterine arteries which feed the fibroid.

These vessels are blocked by fluid containing thousands of tiny particles, causing the fibroid to halve in size after one year. [6] Around 80-90% of women have a significant improvement in their symptoms after 1 year. [5]



Once fibroids have been treated like this, they do not generally grow back. Most women find it takes about 6-9 months to resume a regular menstrual cycle. Although it is possible to have a successful pregnancy after having UAE, the overall effects of the procedure on fertility and pregnancy are uncertain.

Immediately after the procedure you may experience pain, which can be controlled by painkillers, and/or fever as the fibroid breaks down. Some women will have vaginal discharge which persists for a few weeks to months. There is a 0.5% chance of severe infection [6] and in very severe cases may necessitate hysterectomy (0.1% chance). [5] In 3% of women, UAE may lead to premature menopause. This occurs usually in women who are 45 years or older. [6]

**Endometrial ablation:** This procedure involves heating the lining of the womb to reduce heavy bleeding and can also be used to treat small submucosal fibroids encroaching on the womb lining. This is appropriate for small fibroids <3cm. The procedure takes about 20 minutes to perform and can be carried out under local or general anaesthetic. Some women can still have bleeding following this procedure. Pregnancy after an ablation could be dangerous so you must be sure to use reliable contraception.

## References

- [1] NHS website: <https://www.nhs.uk/conditions/fibroids/>. Accessed 24/6/2020
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- [3] <https://fertilitynetworkuk.org/fertility-faqs/fertility-conditions/fibroids/> Accessed 3/7/20
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- [4] Genetic heterogeneity among uterine leiomyomata: insights into malignant progression. AU Hodge JC, Morton CC SO. Hum Mol Genet. 2007;16 Spec No 1:R7.
- [5] Clinical recommendations on the use of uterine artery embolization (UAE) in the management of fibroids, third edition. RCOG 2013
- [6] British Society of Interventional Radiology. Uterine artery embolisation (fibroid embolisation) Patient information Leaflet. Approved by the Board of the Faculty of Clinical Radiology: 25 February 2011

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Mae'r ddogfen hon ar gael yn Gymraeg”.**