Fibroids

What are fibroids?

Fibroids are smooth muscle tumours, medically known as leiomyomas. They are almost always benign. They start off in the muscle wall of the womb (intramural fibroids) and can push inwards (submucous) or outwards (subserosal)

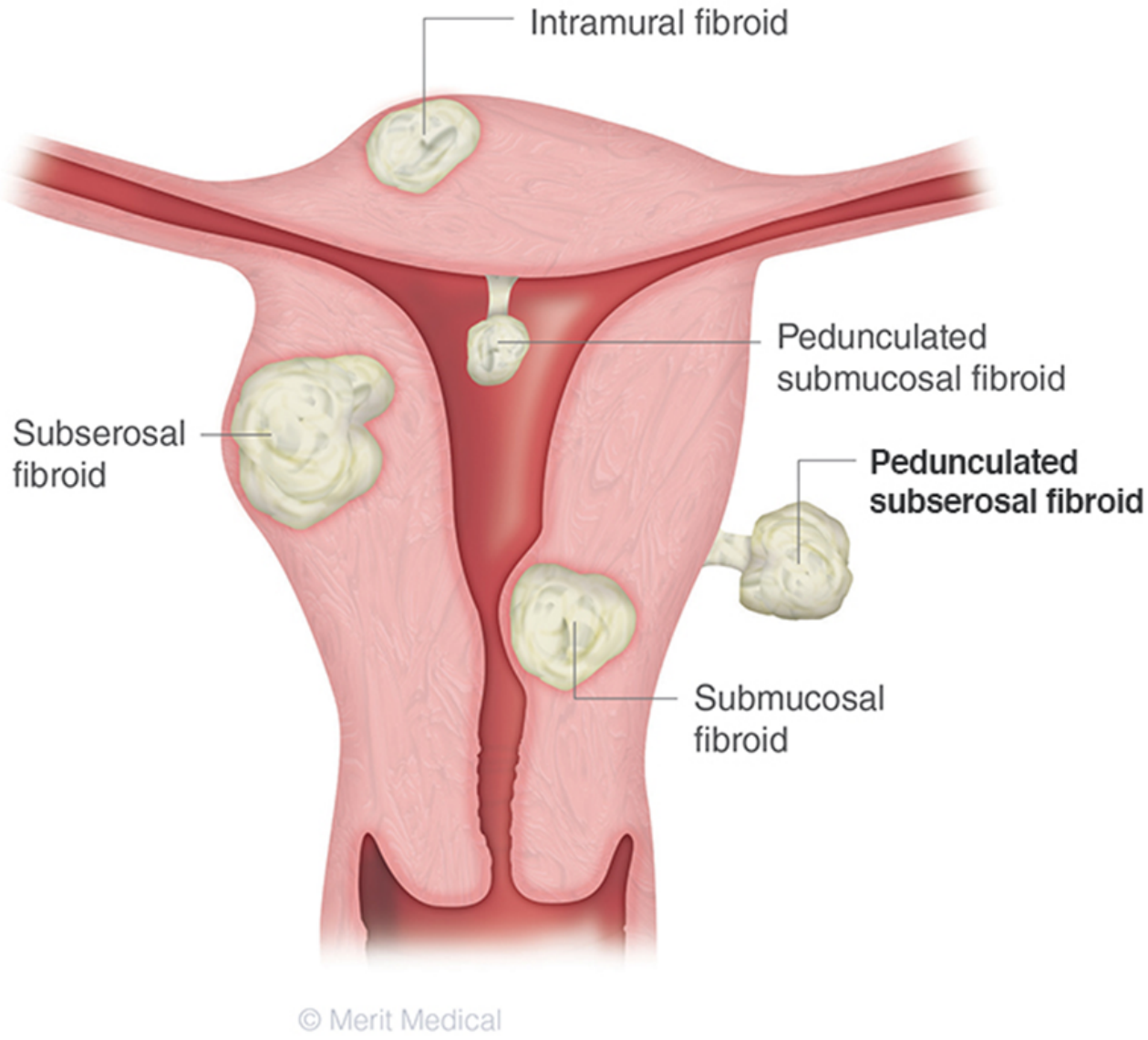
Classification of Fibroids (see image):

» Submucosal – distorts the uterine cavity

» Intramural – no distortion with <50% protruding into serosal surface

» Subserosal – sessile or pedunculated, with > 50% protruding out of serosal surface

Fibroids



What causes fibroids?

Unfortunately, no causative factors have been identified, except that fibroids grow in the presence of oestrogen hormone, hence usually seen in the reproductive age group. Therefore, fibroids tend to shrink in women when they reach menopause.

Fibroids

How common is this condition?

Fibroids are extremely common, with as many as 1 in 2 women diagnosed with the condition on ultrasound scan.

What are the possible risk factors for fibroids?

Age:

Fibroids occur during the reproductive years as they are dependent on the oestrogen hormone. Fibroids are not seen before puberty and tend to shrink after the menopause, unless one is on menopausal hormone therapy, when fibroids can stay unchanged or may increase in size.

Race:

There are racial differences, with fibroids being even more common in women of Afro-Caribbean or Asian origin and often with more severe symptoms at a younger age.

Genetics:

There may be a genetic link with identical twins showing a 2-3 times greater risk of fibroids than non-identical twins when one twin is affected.

Excess body weight:

Excess levels of oestrogen in the body are found in women with excess body weight, who are in turn found to have fibroids more often.

Diet:

Women eating a diet high in red and processed meat and a diet low in fibre rich foods such as fruits and veg have an increased incidence of fibroids. This is thought to be partly because of the lack of fibre that binds oestrogen in the gut. Red meat also contains hormones being animal tissue which can promote the growth of fibroids.

Fruit and vegetable consumption decrease the risk of fibroids. Soya intake does not appear to increase risk and may be protective for fibroids, by virtue of its phytoestrogens (see soya

leaflet). Fibroids may shrink in women eating soya foods although flaxseeds, whole grains and green tea are better at shrinking overall size.

Limiting alcohol:

Alcohol appears to increase the risk for fibroids. This risk is positively correlated with the number of years of alcohol intake and specifically with beer consumption. Compared with women who abstained from alcohol, those who drank one or more beers per day had a greater than 50% increased risk for fibroids.

In summary, eating a fibre rich and micronutrient rich whole food plant based diet is recommended for optimal women's health. This means eating fruits, vegetables (especially green vegetables), intact whole grains, legumes, herbs, spices, nuts and seeds with water as the drink of choice. Avoiding animal products especially red and processed meat is beneficial for women with fibroids. Avoiding junk and refined foods is recommended. *See nutrition leaflet.*

Pregnancy:

Having children appears to decrease the risk of fibroids.

Early menarche:

Starting menstruation early before the age of 10 is associated with increased risk of developing fibroids. This is again related to longer duration of exposure to oestrogen hormones.

The combined oral contraceptive pill:

May be protective with regards to fibroids unless the pill is started very early (13-16 years) when it may increase the risk of developing fibroids. The pill also helps with heavy and painful periods, so it is a good contraceptive choice for a woman with fibroids if they have no other contraindication. The low dose COCP may be a better choice for these women.

Exercise:

Women who engaged in regular physical exercise of 300 minutes per week were found to have a 40% decreased risk of having fibroids

Fibroids

What are symptoms with fibroids?

Some women don't know they have fibroids, as they often cause no symptoms. They may be picked up on an incidental X-ray/CT or MRI scan or if an abdominal or pelvic ultrasound scan is being performed for some other reason.

However, a significant number of women will suffer from heavy and/or painful periods (Secondary Dysmenorrhoea) or irregular bleeding (see leaflet). Women may have intermenstrual bleeding (in between periods) or rarely bleeding after intercourse (post coital bleeding), as a result of fibroids.

Women may present with a pelvic mass, that they may notice themselves or may be causing urinary or bowel pressure symptoms.

Fibroids are rarely the sole cause of infertility or recurrent miscarriage (<10% of cases). The anatomical location is important, with submucous fibroids causing the most problem. Also, if the fibroid is more than 5 cm or near the cervix or near the tubal ostia, it can pose a problem.

Painful periods that have a new onset may need further investigations. Other causes of pain could be from discomfort from size of fibroid, pain from twisting of a pedunculated fibroid, pressure symptoms, red degeneration, usually in pregnancy. Coexisting endometriosis/ adenomyosis is another reason for pain with fibroids. Very rarely, sarcomatous cancerous change and rapid growth of a fibroid can cause pain and needs urgent investigation.

Pregnancy and Fibroids:

Fibroids may be diagnosed sometimes in pregnancy (1-4% of pregnancies on ultrasound). The vast majority (80%) of women have no adverse effects at all from the fibroids in pregnancy with usually no significant change. Fibroids usually show no change in pregnancy, can often flatten out but sometimes they can grow and create problems.

Pain: One of the most common complication of fibroids during pregnancy is pain. Even this is uncommon so it's important to rule out other causes rather than assuming it's the fibroids causing pain. It's seen most often in women with fibroids >5 cm in size and the reason usually is because in some women, fibroids outgrow their blood supply causing cell death in the centre of the fibroid known as red degeneration, usually in their last two trimesters.

Only a small proportion of women have miscarriage, preterm labour, red degeneration,

placental abruption, foetal growth restriction, and bleeding as a result of fibroids. Usually there are other reasons. Fibroids are almost never removed in pregnancy and most pregnancies have a successful outcome.

Can the fibroids turn cancerous?

Fibroids are almost always benign growths. Very rarely do fibroids turn cancerous. Rapid growth with pain may indicate sarcomatous (cancerous) change. In such a situation, urgent referral will be recommended to a specialist.

How are fibroids managed?

Usually a blood test (FBC) to check iron levels and for anaemia and a pelvic ultrasound scan is all that is needed to diagnose symptomatic fibroids.

Further scans such as an MRI scan and other investigations will depend on presenting symptoms and location of fibroids.

Other factors such as age, fertility wishes, and patient choice will dictate management. It is important to assess the patient properly with a detailed reproductive history, thorough examination and appropriate investigations.

After a thorough workup of infertility/recurrent pregnancy loss/pain/period problems, a Hysteroscopy/Laparoscopy/HSG (hysterosalpingogram to check tubal patency) may be recommended to assess the fibroids. Careful assessment and explanation of the benefits and risks of any treatment including any surgical procedure must be carried out before offering the right procedure to the patient.

What medical treatment is available for fibroids?

Some women with small fibroids may be helped with oral medications such as NSAIDs like ibuprofen and mefenamic acid. These prostaglandin synthetase inhibitors help reduce menstrual blood loss by as much as 20-50%. The tablets may also help with headache, nausea and pain.

Other drugs such as inhibitors of fibrinolysis (Tranexamic acid) can reduce menstrual blood loss by 50%. Drugs may have some side effects and varied results in different patients. Your doctor will prescribe the correct drug for you after discussion.

Synthetic progestogens (Provera, NET) or the combined oral contraceptive pill may be helpful in some situations.

Drugs such as Ullipristal Acetate (Esmya) block the effects of progesterone and can shrink fibroids. These have never really been popular in the UK to the side effect profile.

There are Injections such as GnRH analogues (Prostap/Zoladex) are best used short term, a few weeks before an operation to avoid unwanted side effects. The long acting injection is usually administered 8-12 weeks before operating on fibroids and usually wears out of the system in 4-5 months after the injection.

Shorter monthly injections are also available. The side effects can mimic menopausal symptoms as the drug helps to shrink the fibroids by bringing on a temporary menopause. Most women have no significant symptoms. These symptoms can be reversed if needed but this is very rarely an issue.

The Mirena intra uterine system releases a low dose of progesterone hormone daily and can help reduce periods very significantly in women with fibroids. It also provides very effective contraception.

What surgical treatment is available for fibroids?

Fibroids within the cavity can cause heavy, painful periods, irregular bleeding, infertility and recurrent miscarriage. After appropriate investigations, most of these fibroids can be removed in a simple 1-2 stage procedure, through the vaginal route, under a short anaesthetic as a day case procedure (Transcervical Resection of submucous Fibroids – TCRF). Women often notice a dramatic difference in their periods.

Higher pregnancy rates and livebirth rates have been noted if the fibroid resected is between 2cm and 5cm in size. For women who have completed their family and have heavy periods, not responding to simple methods, an Endometrial Ablation or Endometrial resection (TCRE) can be carried out at the same time. A Mirena IUS can be fitted in some patients at the same time.

Removal of other fibroids (Myomectomy) is usually reserved for women wishing to maintain fertility, as surgery is often risky and complicated. This can be done by either an open operation or through keyhole surgery. This procedure will be offered to you after thorough discussion of all options appropriate to the situation. Risks and benefits will be discussed in detail.

In women who have completed their family and with large fibroids, especially if other treatments have failed or are not acceptable, a hysterectomy may be the right option. Most hysterectomies will be performed through the keyhole (Laparoscopic Hysterectomy).

Some women opt for a vaginal procedure while for others an open abdominal approach may be needed, based on the individual situation. Sometimes a hormone injection may be used before surgery to improve iron levels and to shrink the fibroids (GnRh analogues). Risks and benefits of surgery versus other techniques such as fibroid embolisation will be discussed in detail before any decision is finalised.

Are there other treatment options?

Fibroid embolisation (Uterine Artery Embolisation – UAE) and ultrasound treatment (Magnetic Resonance Guided Focused Ultrasound – MRgFUS) to fibroids are techniques that can help women who wish to avoid surgery in certain situations or for whom surgery is not suitable (e.g. women with fibroids in positions close to important structures or those with multiple fibroids have a higher surgical risk).

Patients with failed open, hysteroscopic or laparoscopic myomectomies may be offered UAE or MRgFUS. Patients with large submucous fibroids or numerous intramural and/or submucous fibroids where myomectomy would be technically difficult or with a high recurrence rate may benefit from UAE or MRgFUS.

Careful evaluation is needed before suggesting UAE to women who wish to retain fertility.

UAE involves an assessment by a radiologist after arranging an MRI scan to assess suitability for shrinking the fibroids by cutting off the blood supply using small particles through a little cut in the groin, allowing access to the blood vessels. The risks and benefits will be discussed thoroughly before the procedure by the interventional radiologist.

MRgFUS allows safe non-invasive ultrasound treatment under the guidance of MRI imaging, shrinking fibroids over time. This is relatively new and available only in a few places in the UK. Risks and benefits and a thorough assessment will take place before recommending this procedure.

Not all women are suitable for fibroid embolisation or for ultrasound treatment.

A decision as to which of the treatment methods is suitable for you will be made with the help of your gynaecologist. Risks and benefits of each procedure will be discussed in detail

with you, before a decision is taken. Complementary therapies have not shown to be of any proven benefit for treatment of fibroids.

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