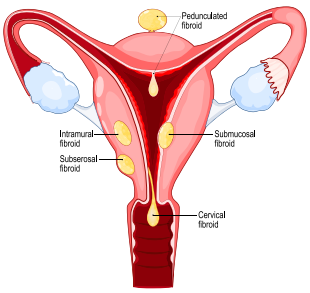
Reproductive Facts

Patient fact sheet developed by the American Society for Reproductive Medicine

Fibroids and Fertility

Uterine fibroids are benign (noncancerous) tumors of collections of muscle tissue that grow in the uterus. They are also called myomas or leiomyomas. Fibroids occur when a single muscle cell in the wall of the uterus multiplies and grows to form a noncancerous tumor. Depending on their location and size, fibroids can change the shape or size of the uterus and other nearby structures, such as the cervix (lower part of the uterus extending into the vagina). Women usually have more than one fibroid tumor, but single fibroids are possible. Whether fibroids cause symptoms or require treatment depends on their location, size, and number.

Types of uterine fibroids



Fibroids are usually found in or around the body of the uterus, but sometimes are in the cervix. There are three main types of fibroids based on where they are found:

- **Subserosal:** found in the outer wall of the uterus (55%)
- **Intramural:** found in the middle muscular layers of the uterine wall (40%)
- **Submucosal:** found in the interior wall of the uterus and enter into the uterine cavity (5%)

Fibroids can be directly attached to the uterine wall or can be connected to the uterus by a stalk (pedunculated). They can also be attached to nearby ligaments or organs, such as the bladder and bowel. Fibroids are rarely found outside the pelvic cavity.

How common are fibroids?

Fibroids are found in up to 70% of women of reproductive age.. The exact cause of uterine fibroids is unknown, but evidence suggests that it may be a combination of genetic, hormonal, and environmental factors.

Can fibroids decrease fertility?

Fibroid size and location determine whether fibroids will affect fertility. Examples of fibroids that often decrease fertility include fibroids that are inside the uterine cavity (submucosal) or very large (>6 cm in diameter) within the wall of the uterus (intramural).

Most women with fibroids will not be infertile. Therefore, women with fibroids and their partners should be thoroughly evaluated to find other problems possibly causing infertility. A fertility specialist can help assess if fibroids might be interfering with achieving a pregnancy.

How do fibroids cause infertility?

There are several ways uterine fibroids can reduce fertility:

- Changes in the shape of the cervix can affect the number of sperm that can enter the uterus. Fallopian tubes can be blocked by fibroids, inhibiting the transportation of the eggs along the fallopian tubes for fertilization by sperm and from entering fertilized eggs to the uterine cavity.
- Fibroids can impact the size of the lining of the uterine cavity.
- Blood flow to the uterine cavity can be decreased. This can decrease the ability of an embryo to stick (implant) to the uterine wall or to develop.

What happens to fibroids during pregnancy?

Most fibroids do not cause an issue during pregnancy. However some fibroids can become larger and cause

problems during pregnancy. If a fibroid grows, it usually does so in the first 12 weeks of pregnancy.

What can happen with fibroids during pregnancy?

The biggest concern in pregnancy is that a fibroid will increase the chance of preterm birth or miscarriage. In some cases, fibroids can outgrow their blood supply and cause severe pain. Also, fibroids can change the baby's position in the uterus. This can increase the risk for miscarriage, preterm delivery, and cesarean section. How fibroids are managed depends on your unique situation and your doctor's recommendations. Surgery is rarely necessary or performed during pregnancy.

If a woman conceives after having a fibroid removed, she should discuss this with the obstetrician who will deliver the baby. A cesarean section may be recommended.

Summary

Uterine fibroids are common and can affect fertility in many ways. They can affect whether sperm and egg meet, whether an embryo can implant in the uterus, whether a pregnancy can continue, and can also affect the growth and positioning of the baby.

Treatment is decided on a case-by-case basis. It is based on the symptoms of fibroids and may improve overall fertility. How and whether you treat your fibroids depends on the severity of your symptoms and your doctor's recommendations.