Fibroids and fertility

What are fibroids?
Uterine fibroids are benign (noncancerous) tumors of muscle tissue 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. Fibroids can change the shape or size of the uterus and sometimes the cervix (lower part of the uterus). 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.

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 are in the outer wall of the uterus (55%)
- Intramural are found in the muscular layers of the uterine wall (40%)
- Submucosal protrude into the uterine cavity (5%)

Fibroids can also be connected to the uterus by a stalk (pedunculated), or 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 20% of women of reproductive age, but are more common in African-American women (50%-80%). The exact cause of uterine fibroids is unclear, but there is evidence that it may be a combination of genetic, hormonal, and environmental factors.

Can fibroids decrease fertility?
Approximately 5% – 10% of infertile women have fibroids. Their size and location determines whether fibroids affect fertility. Examples 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. Women with fibroids and their partners should be thoroughly evaluated to find other problems with fertility before fibroids are treated. A fertility specialist can help assess if fibroids might be hampering conception.

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.
- Changes in the shape of the uterus can interfere with the movement of the sperm or embryo.
- Fallopian tubes can be blocked by fibroids.
- They can impact the size of the lining of the uterine cavity.
- Blood flow to the uterine cavity can be affected. This can decrease the ability of an embryo to stick (implant) to the uterine wall or to develop.

What happens to fibroids during pregnancy?
Fibroids are found in 2% to 12% of pregnant women, but not all fibroids get larger or cause problems in a 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 whether the fibroid will increase the chance or preterm birth or miscarriage. In some cases, fibroids can outgrow their blood supply and cause severe pain. Hospitalization might be needed. 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, they can affect whether an embryo can implant, they can affect whether a pregnancy can continue, and they can 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.

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