

Sexuality, Fertility and Cystic Fibrosis: Information for Adults



Cystic Fibrosis
Canada

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Introduction

Sex is a delicate subject that is often difficult to talk about with health care professionals. This brochure is for adults with cystic fibrosis (CF) who are interested in learning more about sexual health issues, including:

- fertility and the reproductive system
- practical advice about sex
- contraception and sexually transmitted infections
- fungal vaginitis
- stress incontinence

Fertility and the reproductive system

In both men and women, the reproductive system is regulated by sex hormones (progesterone, estrogen, and testosterone). The level of hormones in individuals with CF is entirely normal. Consequently, adults with cystic fibrosis can enjoy a perfectly normal sex life. However, since cystic fibrosis affects mucus viscosity, fertility may be affected.

If you have a child, the child will carry the gene responsible for cystic fibrosis. Your partner can be tested to determine whether he or she is a carrier of the gene responsible for CF, which would help predict whether your child will be a carrier, or at risk of having CF. Meeting with a genetic counselor may be helpful when deciding whether or not to have a family.

In women

In women with cystic fibrosis, vaginal mucus is often thicker than in women without cystic fibrosis, making it more difficult for the sperm to travel and for fertilization to take place.

It often takes longer for women with cystic fibrosis to become pregnant, although this in no way affects the pregnancy itself or the fetus (85% of couples conceive within the first 12 months after stopping contraception).



It is sometimes necessary to consult a fertility expert if you are having difficulty conceiving. Tests may be performed to determine the causes of infertility. Depending on the case, some of the following options may be available:

a) Insemination

Sperm are inserted into the cervix (intracervical insemination) or directly into the uterus (intrauterine insemination). This technique is used when vaginal or cervical mucus is too thick and prevents the sperm from reaching the fallopian tubes. This technique may be used in combination with ovarian stimulation.

b) *In vitro* fertilization

First, women must take hormones to stimulate egg production in the ovaries. Once the eggs are mature, they are retrieved from the ovaries. The male partner produces a sperm sample on the same day. The sperm is used to fertilize the eggs and produce (an) embryo(s). Usually, a maximum of three embryos are transferred to the uterus, three or five days after egg collection. Medication is taken to increase the chances of implantation in the uterus.

If you want to have children and are planning to get pregnant, talk to your doctor and health care team. Pregnancy, as such, is not dangerous provided your condition is stable, but requires more rigorous medical attention, particularly because a decrease in lung function is often observed during pregnancy. Usually, it returns to normal in the months following delivery.

It is important to discuss a planned pregnancy with your doctor, as your medication may need to be changed. The first trimester of pregnancy is a critical phase in the development of the fetus. Certain drugs will directly affect fetal development and must be avoided (especially certain antibiotics and natural products whose effects on the fetus have yet to be tested). Several medications, however, pose no risk to the fetus and may be taken throughout pregnancy, including vitamins, enzymes and insulin.

If you do not want to have children, you must use contraception. Various methods of contraception are listed later in this brochure.

In men

Most men with cystic fibrosis are infertile. Sperm are produced normally, but a blocked or absent vas deferens (the tube connecting the testis to the ejaculatory duct) may prevent the passage of sperm to their intended destination. To be tested for infertility, you will be asked to produce a sperm sample. The sperm will be counted and you will be notified of the results within a few days. Often two sperm tests will be required.



Thanks to reproductive technologies, sperm can be extracted from the epididymis (fine tubules behind the testis) by procedures such as microepididymal sperm aspiration (MESA), or testicular sperm extraction (TESE), or percutaneous epididymal sperm aspiration (PESA).

Sperm are collected during an operation, generally done under local anesthesia. Once collected, a single sperm is injected directly into the egg through intracytoplasmic sperm injection (ICSI). This procedure is done in combination with *in vitro* fertilization.

Men with cystic fibrosis are perfectly able to have normal sexual relations. The ability to have an erection and to ejaculate is unaffected. Men with cystic fibrosis may produce less ejaculate, or none at all, and the semen may be clearer than normal, possibly even transparent.

Practical advice

Sex is an essential part of life, regardless of age, sex, health or physical ability. Cystic fibrosis does not diminish sexual desire or the need to be intimate with your partner. Moreover, sex is a wonderful source of relaxation, pleasure and fulfillment. Some individuals with cystic fibrosis, especially those whose lungs are more seriously affected, worry about shortness of breath or hemoptysis (the expectoration of blood or blood-stained sputum).

During sex, the average heart rate is 117 beats per minute. When you walk or climb stairs, your heart rate can go as high as 107 to 130 beats per minute. So, if you feel fine after climbing two flights of stairs or doing a comparable activity, you are physically fit enough to have sex without worrying about shortness of breath.

The following practical advice will help you fully enjoy your sex life.

- **Avoid anything that may aggravate your symptoms**, such as perfumes, cigarettes and other strong-smelling products.
- **Use your short-acting bronchodilator** (Ventolin™, Brycanyl™, Berotec™, etc.) 20-30 minutes before having sex.
- **Do your physiotherapy exercises to dislodge mucus prior to having sex.**
- **Adopt positions that require less energy and that do not put pressure on your chest.** Use pillows to support your back. If necessary, let your partner play a more active role.

Contraception and sexually transmitted infections (STIs)

Although most men with cystic fibrosis are infertile, they are not immune from STIs.

Women must use contraceptives if they do not wish to become pregnant and they must have protected sex since they are also at risk for contracting STIs.

There are several different types of contraceptives, including:

- **Condom:** when used correctly, it is a highly effective means of birth control and provides protection against STIs almost 100% of the time.
- **Female condom:** similar to the traditional male condom, but inserted into the vagina, it also offers highly effective birth control and STI protection; the female condom is suitable for people who are allergic to latex.
- **Birth control pill:** if used properly, is very effective in preventing pregnancies, but does not offer any protection against STIs; *its effectiveness may be decreased when certain antibiotics are taken.*
- **Depo-Provera™:** delivered by an intramuscular injection every three months. It is NOT recommended for women with CF because it increases the risk of osteoporosis, a condition to which individuals with cystic fibrosis are already predisposed.
- **“The Patch” (Evra®):** an effective once-a-week birth control patch that works on the same principles as the pill. Like the pill it does not offer protection against STIs, and *its effectiveness may be decreased when certain antibiotics are taken.*
- **Intrauterine device (IUD):** a highly effective device that is inserted into the uterus by your gynecologist or family doctor, and can remain there for several years. It does not protect against STIs.

- The diaphragm: a device that prevents sperm from entering the uterus; it should be used in combination with a spermicidal cream or jelly and offers no protection against STIs.

Because of the risk of side effects and potential interactions with your cystic fibrosis medications, talk to your doctor to find the best contraceptive for you.

Fungal vaginitis

Fungal vaginitis is an infection caused by *Candida albicans*. This micro-organism grows in warm, moist regions, especially skinfolds and mucus, and is normally found in the mouth, throat, large intestine and vagina. Women with cystic fibrosis are very likely to suffer from fungal vaginitis because certain antibiotics, such as penicillin (e.g. Amoxil™, Cloxacillin™), cephalosporins and tetracyclines, as well as corticosteroids (Prednisone™) disrupt the vagina's normal acidity and bacterial flora.

Signs and symptoms of fungal vaginitis include itching, irritation and discomfort, pain during intercourse, and pain during urination. These symptoms are more severe prior to menstruation and are more difficult to treat during pregnancy.

In men, symptoms of *Candida* infections are lesions on or irritation of the penis and itching. Men may occasionally present symptoms, while their partner has none.

Fungal vaginitis is usually treated with anti-fungal cream or suppositories for up to seven days. Sometimes, in the case of a serious infection that seems to be resistant to creams, oral medication may be required for a longer period of time.

Some over-the-counter antifungal creams are available at pharmacies. Before deciding to use any of these creams, you should consult a specialist the first time any symptoms appear.

There are other types of vaginitis with similar symptoms for which different treatments are recommended.

Some health care professionals recommend eating yogurt that contains live bacterial cultures (such as probiotics) when taking antibiotics. These bacteria may enable the body to reestablish its bacterial flora, thereby preventing further infection.

Women who experience fungal vaginitis should schedule an annual examination with a gynecologist or family practitioner. Although symptoms may not be present in cases of chronic infections, treatment is required. A visit to your doctor is also a good opportunity to discuss methods of contraception and safe practices, have a PAP test to screen for cervical and uterine cancer, and have a breast examination.

Stress incontinence

Women with cystic fibrosis often experience stress incontinence. This type of incontinence is defined as an involuntary discharge of urine caused by a sudden increase in abdominal pressure, as a result of coughing, for example. Fortunately, there are exercises that can help control this type of incontinence.

Kegel exercises

Kegel exercises help firm the perineal and pubococcygeal muscles, which form the floor of the pelvic cavity. Some examples of Kegel exercises are:

1. Contract and relax the pubococcygeal muscle for three seconds, and repeat. If it is too difficult at first, hold for two seconds to increase the strength of the muscle.
2. Contract and relax the muscle as quickly as possible.

3. Contract the muscle gradually. Hold the contraction for a few seconds and then gradually relax.

There is one side effect: some women have reported increased pleasure during sex after doing the exercises for six weeks; not unpleasant, as side effects go!

For more exercises or instructions, speak with the physiotherapist at your cystic fibrosis clinic.

Resources

www.sexualityandu.ca

What is Cystic Fibrosis Canada?

Cystic Fibrosis Canada (formerly known as the Canadian Cystic Fibrosis Foundation) is a national health charity established in 1960, with volunteers in more than 50 chapters across Canada.

Cystic Fibrosis Canada's mission is to help people with cystic fibrosis by: funding research towards the goal of a cure or control for cystic fibrosis; supporting high quality cystic fibrosis care; promoting public awareness of cystic fibrosis; and raising and allocating funds for these purposes.

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