

MALE SEXUAL DYSFUNCTION

LACK OF DESIRE

Both men and women often lose interest in sex during cancer treatment, at least for a time. At first, concern for survival is so overwhelming that sex is far down on the list of needs to be met. This is quite normal. Few people are interested in sex when they feel their life is being threatened.

When people are being treated for cancer, worry, depression, nausea, pain, or fatigue may cause loss of desire. Cancer treatments that disturb the normal hormone balance can also lessen sexual desire. If there is a conflict in the relationship, one partner or both might lose interest in sex. Many people who have cancer worry that a partner will be turned off by changes in their bodies or by the very word cancer.

Each part of a man's sexual cycle is somewhat independent from other parts of the cycle. That is why, after some types of cancer treatment, a man may still desire sex and be able to ejaculate but not have an erection. Other men have the feeling of orgasm along with the rhythmic muscle contractions, even though semen is no longer ejaculated.

ERECTION

Cancer treatments can interfere with erection by damaging a man's pelvic nerves, pelvic blood vessels, or hormone balance. Sometimes these side effects cannot be avoided if the cancer is to be controlled. Following cancer treatment, medical or surgical treatments can often restore erections. If a man has a problem getting or keeping an erection, the condition is called impotence or erectile dysfunction (ED).

Any emotion or thought that keeps a man from feeling excited can also interfere with his getting or keeping an erection. A common anxiety is the nagging fear of not being able to get an erection or satisfy a partner.

PREMATURE EJACULATION

Premature ejaculation means reaching a climax too quickly. Men who are having erection problems often lose control over the ability to delay orgasm, so they ejaculate too quickly. Premature ejaculation is a very common problem, even for healthy men. It can be overcome with some practice in slowing down excitement. There are also new antidepressant medications that have the side effect of delaying orgasm. This side effect can be exploited and used to help men who have persistent premature ejaculation. Some men also feel that their orgasm is weaker than before. A mild decrease in the intensity of orgasm is normal with aging, but it can be more severe in men whose cancer treatments interfere with ejaculation of semen.

PAIN

Men also sometimes feel genital pain during sex. Irritation of the prostate gland or urethra from cancer treatment can cause painful ejaculation. Pain in the penis as it becomes erect is less common, but in men over 40, the penis may develop a painful curve or “knot” with erection. However, this condition, called Peyronie disease, does not seem to be any more common in men with cancer.

SURGERY AND ERECTION

Surgeries performed on the prostate, bladder, colon, or rectum as part of cancer treatment could possibly interfere with erections. All of these operations may damage nerves and blood vessels in the pelvis. This damage can cause problems with messages that the nerves send to create or maintain an erection. Damage to the blood vessels can cause problems with blood circulation to the penis that also results in difficulty having a full erection.

Some men do regain full erections, but it can sometimes take up to a year. We do not know why some men regain full erections and others do not. Men are more likely to recover erections when nerves on both the left and right sides of the prostate are spared. The healing and growth of new blood vessels may also help restore blood flow to the penis.

Some operations cause more problems with sexual function than others. Generally, the younger a man is, the more likely he is to regain full erections. Men under 60, and especially those under 50, have much higher erection recovery rates than older men. Men who had good erections before cancer surgery are far more likely to have a full sexual recovery than are men who had erection problems.

RADIATION THERAPY AND ERECTION

Radiation therapy to the pelvis is often given to treat prostate, bladder, or colon cancer. Men are often treated with radiation to the pelvis, which can also cause problems with erections. The higher the total dose of radiation and the wider the section of the pelvis irradiated, the greater the chance that an erection problem will develop.

One way that radiation affects erection is by damaging the arteries that carry blood to the penis. As the irradiated zone heals, internal tissues become scarred. The walls of these blood vessels lose their ability to stretch. They can no longer expand enough to let blood speed in and create a firm erection. Radiation can also speed up hardening (arteriosclerosis), narrowing, or even blocking of the pelvic arteries. Radiation may also affect the nerves that control a man's ability to have an erection.

A reasonable estimate is that one quarter to one third of the men who receive radiation notice their erections change for the worse over the first year or so after radiation treatment. This change most often develops slowly. Some men will still have full erections but lose them before reaching climax. Others no longer get firm erections at all.

Studies suggest that men report increasing rates of impotence as time goes on, with three quarters (75%) of men reporting impotence within 5 years of radiation treatment for early stage prostate cancer. Of men who had good erections before radiation, about half reported impotence within the 5-year period after. Some of this decrease may be due to increasing age. Men who have high blood pressure or who have been heavy smokers seem to be at greater risk for these erection problems. This is because their arteries may already be damaged.

In a few men, testosterone production will slow after pelvic radiation. The testicles are affected either by a mild dose of scattered radiation or by the general stress of cancer treatment. If a man notices erection problems or a loss of desire after cancer treatment, he may decide to have a blood test for testosterone. However, testosterone levels usually recover within 6 months after radiation therapy, so extra hormones may not be needed. A man with prostate cancer should not take replacement testosterone, since it can speed up the growth of prostate cancer cells.

FERTILITY AND CANCER TREATMENT

Some cancer treatments can cause men to become infertile. Radiation therapy, for instance, to an area that includes the testes can reduce both the number of sperm and their ability to function. This does not mean that pregnancy cannot occur, but it becomes less likely.

Some types of chemotherapy can damage the sperm over the short term, while others can cause permanent infertility. The short-term changes have been shown to last about 3 months. Because the risk of birth defects from chemotherapy is hard to study, there is not much information about it in relationship to cancer treatment. To reduce this possible risk, doctors often recommend that a man use careful birth control during chemotherapy and for some months after it is complete.

Several types of surgery to the pelvic and genital area can cause infertility. If both testicles are removed, for example, sperm cells cannot be produced and a man becomes infertile. See the section, Surgery and Ejaculation for information on other types of surgery that can cause infertility. If you want to father a child and are concerned about reduced fertility, talk to your doctor before starting treatment. One option may be to bank your sperm ahead of time.

CHEMOTHERAPY, EFFECTS ON DESIRE, ERECTIONS, AND SEXUAL ORGANS

Most men undergoing chemotherapy still have normal erections. However, a few develop problems. Erections and sexual desire often decrease just after a course of chemotherapy but recover in a week or two.

Chemotherapy can sometimes affect sexual desire and erections by slowing down the amount of testosterone produced. Some of the medicines used to prevent nausea during chemotherapy can also upset hormonal balance. Hormone levels should return to normal after treatments end.

A few chemotherapy drugs, for example cisplatin or vincristine, can permanently damage parts of the nervous system. It may be that these drugs interfere with the nerves that control erection. However, there is no scientific proof for such a side effect.

Chemotherapy can also cause a flare up of genital herpes or genital wart infections if a man has had them in the past. It can also cause temporary or permanent infertility. (See section on Fertility and Cancer Treatment.)

HORMONE THERAPY

Treatment for prostate cancer that has spread beyond the gland often means changing a man's hormone balance. This can be done in the following ways:

- removing a man's testicles
- using medicines to stop testosterone production
- using medicines that block the body's cells from using testosterone
- a combination of these treatments

The goal of hormone therapy is to starve the cancer cells of testosterone. This slows the growth of the cancer. Female hormones (estrogens) were once commonly used to block the effects of testosterone but are rarely given today. All of these treatments have similar sexual side effects. The most common problem is a decrease in desire for sex (libido). Perhaps this is one reason men often have trouble getting or keeping erections or reaching orgasm. Hormone therapy may cause minor changes in appearance. However, most people do not notice a difference.

A number of men receiving hormone therapy say that their sexual desire is still strong. They do, however, have problems achieving erection. Or, they may have problems reaching orgasm. The effects of hormones on the erection response are not well understood, and the side effects of hormone treatment are hard to predict. Some men are able to feel desire and have erections and orgasms, even without testosterone. Other men function well for several years, then slowly lose interest in sex. The strong desire to stay sexually active may be the key.

WHAT ARE THE PSYCHOLOGICAL EFFECTS OF HORMONE THERAPY?

Men who have lost their testicles or who are on hormone therapy often feel like "less of a man." They fear becoming feminine in looks and personality. This is a myth. Manhood does not depend on hormones, but on a lifetime of being male. Hormone therapy for prostate cancer may decrease a man's desire for sex. However, it cannot change the type of sexual activity he desires. A man who has always been attracted only to women, for example, does not suddenly (or gradually) become homosexual.

PSYCHOLOGICAL EFFECTS OF TREATMENT ON ERECTION

Fears about self-image and performance can sometimes lead to erection

problems. Instead of letting go and feeling excited, a man watches himself during sex to see if he will be able to function. His fears of failure can become a self-fulfilling prophecy. He then blames the resulting problem on his medical condition, even though he might have an erection if he is able to relax.

Sex therapy is often successful in treating erection problems caused by anxiety and stress. Treatment for an erection problem should be based on the results of a thorough evaluation. This evaluation should include both interviews (medical history) and special medical tests.

CANCER TREATMENT AND EJACULATION

Cancer treatment can interfere with ejaculation by damaging the nerves that control the prostate, seminal vesicles, and the opening to the bladder. It can also stop production of semen in the prostate and seminal vesicles. Despite this damage, a man can still feel the sensation of pleasure that makes an orgasm. At the moment of orgasm, however, little or no semen is released.

Some men say an orgasm without semen feels totally normal. Many others say the orgasm does not feel as strong, long-lasting, or pleasurable. Men often worry that their partners will miss the semen. Most of the time, their partners cannot feel the actual fluid release, so this is generally not true.

Some men's chief concern is that orgasm is less satisfying than before. Others are upset by "dry" ejaculation because they wish to father a child. If a man knows before treatment that he may want to father a child after treatment, sperm banking may be an option. (See the section, Fertility and Cancer Treatment.)

SURGERY AND EJACULATION

Surgery can affect ejaculation in 2 different ways. One is when surgery removes the prostate and seminal vesicles, so that a man can no longer make semen. The other is surgery that damages the nerves that control emission (when sperm and fluid mix to make semen.)

REMOVAL OF PROSTATE GLAND AND SEMINAL VESICLES

The 2 types of cancer surgery that remove the prostate gland and the seminal vesicles are called:

- radical prostatectomy (removal of the prostate)
- cystectomy (removal of the bladder)

A man will no longer produce any semen after these surgeries. The sperm cells made in his testicles ripen, but then the body simply reabsorbs them with no ill effects. After these cancer surgeries, a man will have a "dry" orgasm without semen.

Other operations cause ejaculation to go back inside the body (retrograde ejaculation). rather than come out At the moment of orgasm, the semen

shoots backward into the bladder rather than out through the penis. This is because the valve between the bladder and urethra remains open after some surgical procedures. This valve normally shuts tightly during emission. The path of least resistance for the semen then becomes the backward path into the bladder. When a man urinates after such a dry orgasm, his urine looks cloudy because the semen mixes into it during the orgasm.

A transurethral resection is an operation to core out the prostate by passing a special scope into it through the urethra. This usually causes retrograde ejaculation by damaging the bladder valve. This procedure is not a cancer treatment but is sometimes used to diagnose cancer.

NERVE DAMAGE

The 2 cancer operations can cause dry orgasm by damaging the nerves that control emission (the mixing of the sperm and fluid to make semen) are:

- abdominoperineal (AP) resection, which removes the rectum and lower colon
- retroperitoneal lymph node dissection, which removes lymph nodes in the abdomen, usually in men who have testicular cancer

Some of the nerves that control emission run close to the lower colon and are damaged by AP resection. Lymph node removal (dissection) damages the nerves higher up, where they surround the aorta (the central artery in the abdomen).

The effects of the 2 operations are probably similar. However, more is known about sexual function after node dissection. Sometimes the node dissection only causes retrograde ejaculation. However, it usually paralyzes emission. When this happens, the prostate and seminal vesicles cannot contract to mix the semen with the sperm cells. In either case the result is a dry orgasm. The difference between no emission at all and retrograde ejaculation is important if a man wants to father a child. Retrograde ejaculation is better because sperm cells may be recovered from a man's urine and used to make a woman pregnant.

Sometimes nerves recover from the damage caused by retroperitoneal lymph node dissection. It often takes 1 to 3 years before ejaculation of semen resumes, if at all. Because men with testicular cancer are often young and have not finished having children, surgeons have nerve-sparing techniques that often allow ejaculation to remain normal after retroperitoneal node dissection. In experienced hands, these techniques have a very high rate of preserving the nerves and normal ejaculation. Some medicines can also temporarily restore ejaculation of semen to allow conception. If sperm cells cannot be recovered from a man's semen or urine, infertility specialists may be able to retrieve them directly from the testicle by minor surgery, then use them to fertilize a woman's egg to produce a pregnancy.

Retroperitoneal node dissection does not stop a man's erections or ability to reach orgasm. However, his pleasure at orgasm may be less intense.

OTHER CANCER THERAPIES AND EJACULATION

Some cancer treatments reduce the amount of semen that is produced. After radiation to the prostate, some men ejaculate only a few drops of semen. Toward the end of radiation treatments, men often feel a sharp pain as they ejaculate. The pain results from irritation in the urethra (urinary tube through the penis). It should go away within several weeks after the end of treatment.

Usually, men who have hormone therapy for prostate cancer also produce less semen than before.

Chemotherapy rarely affects ejaculation; however, a few drugs may cause retrograde ejaculation by damaging the nerves that control emission. Vincristine is one of these drugs.

Works Cited

Adapted from the American Cancer Society
www.cancer.org