#### SEXUAL HEALTH

# FREQUENTLY ASKED QUESTIONS: ABOUT FERTLITY PRESERVATION

Urology Care

The Official Foundation of the American Urological Association

#### WHAT IS FERTILITY PRESERVATION?

When a man can no longer make sperm (for any reason) he is infertile. He cannot have a biologically-related child. If you are at risk, you may be able to save sperm for future fertility. Fertility preservation improves a man's chance of having a child using his own sperm in the future.

This decision is very personal. Fathering a child may not be on your mind right now, it may be important to you in the future. If you consider this option, you should talk with your partner or someone you trust.

#### WHO IS A CANDIDATE FOR FERTILITY PRESERVATION?

Fertility preservation is an option when a man:

- Is diagnosed with cancer at a young age
- Expects to have a toxic treatment or surgery
- Has an autoimmune, hormone or genetic disorder
- Experienced trauma
- Hopes to have children later in life
- Has a high-risk work, like military deployment
- Have low sperm counts for no known reason
- Has a condition where sperm production or transport out of the body may change at some point in his life

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### WHAT ARE THE OPTIONS FOR PRESERVING MY FERTILITY?

Urologists or endocrinologists specialize in treating male fertility problems. Male fertility-saving options are:

- Sperm banking. This is a way to freeze sperm (cryopreservation) for future use. The sperm stays frozen, or "banked," until you need them. Freezing—even for many years—does not damage sperm. (Good to do before cancer treatment.)
- Testicular sperm extraction. If a man's semen has no sperm, his testicles still may have some. In testicular sperm extraction, a surgeon removes small pieces of testicular tissue (biopsy). If the tissue contains sperm, the sperm are either frozen or used to fertilize a partner's eggs. (Good before or after cancer treatment.)
- **Gonadal shielding.** It can help to shield the testicles from radiation during treatment. This may stop damage to sperm but does not guarantee sperm will be saved.
- Electro or vibratory ejaculation. This process releases sperm for men with spinal cord injury, diabetes or other conditions that affect release of semen.

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### WHAT IS THE LIKELIHOOD THAT I WILL BE ABLE TO FATHER A CHILD?

Intrauterine insemination (IUI) or in vitro fertilization (IVF) can be used to fertilize an egg with banked sperm. Success depends on the age and fertility of the female partner. It also depends on the quality of the sperm. When you store a semen sample, its quality is tested. This test shows:

- The number of sperm
- The percent of sperm that are moving (motility)
- The percent of sperm that look normal

#### HOW IS MY SPERM COLLECTED?

Most often, sperm is collected with masturbation. The sample is collected in a clean dish, privately, in room near the laboratory. If the sample is gathered at home or some place else, it must be delivered within 1 hour.

To get a good sample, men are asked not to have sex for at least 2 days before. Condoms should not be used (they have chemicals). Penile vibratory stimulation (PVS), and electroejaculation (EEJ) can be used to arouse the penis in cases where natural release is not possible.

If needed, sperm can be gotten surgically. To get a small tissue sample, the urologist may use fine needle aspiration or extraction. Some choices are: Testicular Sperm Aspiration (TESA), Microsurgical Epididymal Sperm Aspiration (MESA), Percutaneous Epididymal Sperm Aspiration (PESA) or Microsurgical Testicular Sperm Extraction (TESE).

#### WHERE IS SPERM COLLECTED?

At a licensed laboratory, hospital or fertility center can bank sperm.

#### HOW LONG CAN MY SAMPLE BE STORED?

Sperm can be stored in a frozen state for many years. Freezing and thawing does change the sperms quality. Banking sperm before cancer treatment can allow a teenager or young adult to become a father when he is ready. Men who have a vasectomy may choose sperm banking as option to father a child if his life changes. At this time, almost half of your sperm survive the freeze thaw process. Research is being done to improve this. Storing as much semen as often as possible can help.

### WILL MY FUTURE CHILDREN BE HEALTHY IF I USE STORED SPERM?

Most often, children born from stored sperm grow to be healthy people. They do not show any higher rates of birth defects or cancer.

Men who have cancer treatment before banking sperm have special issues they should worry about. Most types of cancer are not inherited from father to child. However, there are a few cancers that can run in families. Your health care provider can tell you whether yours falls in this group. You may ask to talk with a genetic counselor (a professional who can educate people about inherited risks).

### HOW MUCH DOES SPERM RETRIEVAL AND STORAGE COST?

Most insurance plans do not cover sperm retrieval. The cost depends on a few things:

- Type of procedure and how long it takes
- If it is done in an office or operating room
- Whether sperm are used now or will be frozen for later use

The cost to bank sperm varies. You may need to have blood and urine tests for certain diseases, which add to the cost. Procedures done in the office under local anesthesia avoid surgical center or anesthesia costs.

Ask the sperm bank if they offer discounted rates to cancer patients. They may offer a discount on their own or through the LIVESTRONG Fertility program. If the cost of storage becomes more than you can pay, you can move the sample to another bank.

#### WHAT IF I MOVE TO A DIFFERENT CITY OR STATE?

If you move, you can work with sperm banks to move your sample to someplace else.

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### WHO WILL HAVE ACCESS TO MY SAMPLE IN THE FUTURE?

People who signed a consent form at the time of freezing will have access to your sample. Often this is the patient and/or a partner specifically listed.

### IF YOU HAVE CANCER: WHAT IS THE CHANCE OF BEING INFERTILE AFTER TREATMENT?

Not all men become infertile after cancer treatment. The impact that cancer treatment has on fertility depends on:

- Type and dose (amount) of chemotherapy
- Dose and place of radiation therapy
- Site of surgery (especially if needed in the pelvic area)
- Your age (risk of infertility rises with age)
- Your fertility before treatment

Some cancer drugs are more likely to cause infertility than others. If you plan to have chemotherapy, ask your doctor about drugs that are less likely to hurt your fertility.

Patients who have their fertility affected from testosterone replacement can try alternative hormone therapies to restore sperm production. Some men find this helpful.

#### AFTER CANCER TREATMENT WHAT ARE MY FERTILITY OPTIONS?

If you had chemotherapy or radiation and still have sperm in your ejaculate, your doctor may ask that you wait for at least 6 months to 1 year after treatment to try and get pregnant. You may not need to use banked sperm. It is possible for healthy sperm production to start again. This may take 2-5 years to see sperm return to the ejaculate. Until you're ready, use a condom or other birth control, even if you think you are infertile.

## IF YOU HAVE AN AUTOIMMUNE DISEASE: HOW CAN TREATMENT AFFECT FERTILITY?

Treatment can stop sperm producing cells from creating sperm. Or it can impact the hormonal pathway for sperm production. Fertility preservation is an option.

## IF YOU HAVE A SPINAL INJURY: HOW CAN SPINAL CORD INJURY AFFECT FERTILITY?

Spinal cord injury can hurt the ejaculation pathway. Fertility preservation through surgical sperm retrieval can help.

#### HOW DOES BEING IN THE MILITARY OR HIGH RISK WORK AFFECT FERTILITY?

Protecting against an injury is certainly the best option, if you are in the military or have a high risk job. Still, before deployment or starting high risk work, some men chose to bank sperm. Sadly, this is not an choice after trauma or an injury.

## IF YOU HAVE DIABETIES: SHOULD DIABETICS FREEZE SPERM?

If your ejaculate volume is decreasing and you're still young, talk with a urologist about fertility preservation.

## IF YOU ARE YOUNG WITH KLINEFELTER'S SYNDROME: SHOULD YOU PRESERVE SPERM?

Young men who take testosterone for delayed puberty (as with Klinefelter syndrome) may choose to freeze sperm. Other conditions may also shut down testosterone production. Testosterone should not be used prior to fertility preservation unless it's needed.

### AT WHAT AGE SHOULD A PATIENT CONSIDER FERTILITY PRESERVATION?

Any person who is post puberty should consider fertility preservation. Many places have research protocols about when a child should consider their fertility preservation. It's important you talk with your doctor about your options.

Teens and young men diagnosed with cancer should consider banking their sperm before treatment. Adolescents can save sperm by providing an ejaculated semen sample, or with surgical sperm retrieval (EEJ, testicular biopsy). It's not known how samples in pre-pubertal boys can be used to make mature sperm later in life. Research is ongoing.

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#### WHAT ARE MY OPTIONS FOR FUTURE FERTILITY IF I DO NOT OR CANNOT DO FERTILITY PRESERVATION?

Men do have other options for fathering a child if they cannot or do not wish to use fertility preservation. Some men do recover sperm production after cancer treatment. These patients can try to conceive naturally, or use assistance (like IUI). If there is no sperm in the ejaculate, surgical sperm retrieval may be possible. Alternatively, patients may consider donor sperm, adoption, foster parenting or childfree living.

#### ABOUT UROLOGY CARE FOUNDATION

The Urology Care Foundation is the world's leading urologic Foundation – and the official Foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make healthy changes. Our information is based on the American Urological Association resources and is reviewed by medical experts.

To learn more, visit **UrologyHealth.org/UrologicConditions** or go to **UrologyHealth.org/FindAUrologist** to find a doctor near you.

#### DISCLAIMER

This information is not a tool for self-diagnosis or a substitute for medical advice. Please talk to your urologist or health care provider about your health concerns. Always consult a health care provider before you start or stop any treatments, including medications.

For copies of other printed materials about urologic conditions, visit **UrologyHealth.org/Order** or call 800-828-7866

This patient resource was provided through the generous support of the Dr. Cappy and Beth Rothman Family Foundation and California Cryobank Biotech.

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