

University of Iowa Health Care

# Sperm Cryopreservation Program

## What is sperm cryopreservation?

Sperm cryopreservation lets people freeze and store their sperm. This is often done before treatments that may lead to lower fertility or sterilization, like:

- Cancer treatment
- Vasectomy
- Gender affirming treatment

## Do sperm survive cryopreservation?

About half (50%) of sperm survive and still move when thawed (called motile sperm). Each semen sample can vary in:

- Sperm count
- Percent of motile sperm
- Number of sperm that survive thawing (post-thaw viability)

The number of motile sperm needed before freezing can range from:

- Less than 10,000 for in vitro fertilization (IVF) with micromanipulation to
- 20 million for intrauterine insemination (IUI)

After freezing, we will thaw a small part of the sample. We will then analyze the percent of motile sperm expected to survive. This information helps your doctor if you need medically assisted reproduction in the future.

## What is sperm morphology?

Sperm morphology is the physical characteristics of each sperm, like head size and shape. We check sperm morphology to measure sperm quality. The percentage of normal sperm in a sample can affect how well they fertilize an egg. This helps you and your doctor decide the best procedure for future pregnancy attempts.

The Andrology Lab will keep a morphology slide. Your doctor can ask for the lab to evaluate it.

## How is cryopreserved sperm used?

### Intrauterine Insemination (IUI)

Couples may be able to become pregnant with IUI if they have sperm parameters of 15 million motile sperm with more than 40% motility before freezing.

The frozen sperm are thawed, washed, and put into the female's uterus on the day of expected ovulation. This procedure can be done in a doctor's office. About 15 in 100 couples will become pregnant per cycle using IUI.

The best number for pregnancy with IUI is 10 million motile sperm. We suggest saving enough frozen sperm for IVF if you do not become pregnant with IUI.

Health insurance may cover some or none of these costs.

### In Vitro Fertilization (IVF)

Couples with less than 15 million cryopreserved motile sperm may need IVF and embryo transfer. In IVF, eggs are taken from the ovaries and fertilized by sperm in a lab. The embryos are then put into the uterus.

Health insurance may cover some or none of these costs.

## Where can I find more information about IUI and IVF?

- Visit our website at [uihc.org/andrology-laboratory](http://uihc.org/andrology-laboratory)
- Call the Center for Advanced Reproductive Care
  - For IVF: 319-356-8483
  - For IUI: 319-356-1767

## How do I schedule an appointment for sperm cryopreservation?

- Call the UI Health Care Andrology Laboratory at 319-467-5299.
- Appointment times are Monday through Friday, 8:00 a.m. to 2:00 p.m.
- A doctor's order is needed for all testing. The lab must have it before scheduling an appointment.
- Before you store a semen sample, you must be tested for:
  - HIV I/II Antibody (or HIV Antigen/Antibody Combo)
  - Hepatitis B Surface Antigen
  - Hepatitis C Antibody
- If testing is done outside of UI Health Care, have your referring doctor's office send us the test results.
- Do not ejaculate for **2 to 7 days** before specimen collection.

## How is the semen sample collected?

- You will go into a private room.
- The sample must be collected by masturbation directly into a sterile container.
- The lab will give you lubricant if needed.

## How is the sperm cryopreserved?

1. The semen analysis is done about 1 hour after the sample arrives at the lab.
2. The lab checks ejaculate volume, seminal fluid consistency, sperm count, and sperm motility.
3. After analysis, the semen is protected from freezing damage and moved into cryovials. The average ejaculate will fill 1 to 3 vials.
4. The sperm are then frozen and stored in a liquid nitrogen tank at -196°C. Sperm can be stored at this temperature forever.

## How is the sample stored?

- The Andrology Lab is part of the ReproTech, Ltd. Fertility Preservation Network. The frozen sperm will be sent to ReproTech for long-term storage.
- You must create a ReproTech account before your appointment. You can set up your account at: [reprotech.com/forms](http://reprotech.com/forms).
- If travel or time is a problem, ReproTech can mail you a kit for collection at home. For more information, visit: [reprotech.com](http://reprotech.com).

## How do I get my semen analysis results?

- Talk to your doctor for your results.
- Your doctor can ask for early results to be faxed to them within 24 hours.
- A final copy of results will be mailed within 7 business days to your doctor.

## How much does cryopreservation cost?

Procedure	Cost
<b>Semen freeze</b> (includes \$217 charge for seminal fluid analysis)	\$403
<b>Sperm morphology</b> (only if asked for by doctor)	\$201