

## PATIENT SPERM BANK PROGRAM

### Semen Cryopreservation

Sperm cryopreservation allows patients to preserve or "bank" sperm prior to undergoing treatment for cancer, vasectomy, gender affirming treatments or face other procedures or situations that may lead to reduced fertility or sterilization.

### Sperm Viability After Cryopreservation

Approximately 50% of the motile sperm retain motility when thawed. Sperm count, percent motility, and post-thaw viability will vary for each semen sample. Poor quality specimens do not freeze as well as normal semen samples. The number of motile sperm pre-cryopreservation required for medically assisted reproduction techniques ranges from less than 10,000 (in vitro fertilization with micromanipulation) to 20 million (intrauterine insemination). We will thaw a small portion of the specimen shortly after cryopreservation to determine the percentage of motile sperm that are expected to survive cryopreservation. This information will be valuable to physicians should you need a medically assisted reproduction procedure in the future.

### Morphological Evaluation of Sperm

Evaluation of sperm morphology is a method to measure sperm quality. A small sample of the specimen to be frozen is fixed onto a microscope slide and two hundred sperm are observed and rated according to a standard set of values for head shape, length, width and any other abnormalities that may be present. The ability of the sperm to fertilize an egg in vitro is correlated with the percentage of morphologically normal sperm in the ejaculate. This information will be important for selecting a medically assisted reproduction technique for future pregnancy attempts. A morphology slide will be retained by the Andrology Laboratory and will be evaluated upon physician request.

## Conceiving with Cryopreserved Sperm

**Intrauterine Insemination (IUI)** Patients with normal, pre-cryopreservation, sperm parameters (20 million motile sperm and >50% motility) may be able to conceive with intrauterine insemination. For intrauterine insemination the cryopreserved sperm are thawed, washed, concentrated in a small volume and inserted into the wife's uterus on the day of expected ovulation. This procedure may be performed in a physician's office and is the least expensive medically assisted reproduction technique and has a pregnancy rate of 15% per cycle. The optimal number of post-thaw motile sperm for achieving a pregnancy with intrauterine insemination is 10 million/insemination. Patients may wish to try this method first, while reserving enough frozen sperm for use in the in vitro fertilization program if a pregnancy is not achieved through intrauterine insemination. Health insurance plans may cover some or none of these charges.

**In Vitro Fertilization (IVF)** Patients with less than 20 million motile sperm cryopreserved are likely to require IVF and embryo transfer (IVF-ET). IVF facilitates the process of fertilization by inseminating eggs outside the body. Embryos resulting from this process are transferred to the uterus 5 days after the egg retrieval. Health insurance plans may cover some or none of these charges.

For more information about the intrauterine insemination or in vitro fertilization program please visit our website: <https://uihc.org/andrology-laboratory>

or contact:

**University of Iowa Health Care  
Center for Advanced Reproductive Care  
1360 N Dodge Street, Suite 2000  
Iowa City, IA 52245  
Phone: (319) 356-8483 for IVF  
or (319) 356-1767 for IUI**

## Scheduling, Pre-Banking Requirements, Sample Collection, Cryopreservation, and Storage Procedures

**Scheduling** You may schedule an appointment at the UI Health Care Andrology Laboratory for sperm cryopreservation by calling (319) 467-5299. Appointment times are Monday-Friday, between 8:00 a.m.- 2:00 p.m. A physician requisition is required for all testing and must be received by the laboratory prior to scheduling an appointment.

### Before you store a semen sample you need to be tested for the following infectious diseases:

- HIV I/II Antibody (or HIV Antigen/Antibody Combo)
- Hepatitis B Surface Antigen
- Hepatitis C Antibody

If testing is done outside of University of Iowa Hospitals & Clinics, please have your referring physician's office send us the test results.

Two to seven days of abstinence from ejaculation is recommended prior to the day of specimen collection to optimize the number of motile sperm in the ejaculate. You should schedule your appointments accordingly.

- The Andrology Laboratory is located at UI Health Care North Dodge, **1360 North Dodge Street, Level 2**

**Specimen Collection** The specimen will be collected in a private room. In order to keep the specimen as sterile as possible, it must be collected into a sterile container by masturbation. The laboratory will provide a sterile, non-spermicidal lubricant if you require a lubricant.

**Cryopreservation** The semen analysis will be completed approximately one hour after the specimen arrives at the laboratory. We evaluate the ejaculate volume, seminal fluid consistency, sperm count, and sperm motility. Following the analysis, the semen is diluted with a cryoprotectant to protect the sperm during cryopreservation and the specimen is transferred to cryovials. The average ejaculate will fill 1-3 vials. The sperm are then frozen and stored in a liquid nitrogen tank at -196°C. Sperm may be stored at this temperature indefinitely.

**Storage** The UI Health Care Andrology Laboratory is a member of the ReproTech, Ltd. Fertility Preservation Network. The network is based on ReproTech's long history in sperm banking and their leadership and expertise in long term storage. The cryopreserved sperm will be sent to ReproTech for long-term sperm storage. For more information about ReproTech please visit their website: <http://www.reprotech.com/>

**A ReproTech account must be created prior to the laboratory cryopreservation appointment. The ReproTech account can be set up online:**  
<https://www.reprotech.com/forms/>

**Results** If requested, preliminary results may be faxed to the ordering physician as soon as they become available, usually within 24 hours. A final copy will be mailed within 7 business days to the ordering physician. Please contact the ordering physician for results.

**Fees**

Semen Freeze (Includes \$193.00 charge for Seminal Fluid Analysis)	\$358.00
Sperm Morphology (only if requested by physician)	\$179.00

For scheduling or further information about the UI Health Care Andrology Laboratory, please contact us:

**University of Iowa Health Care North Dodge**

**Attn: Andrology Laboratory  
1360 N Dodge Street, Suite 2000  
Iowa City, IA 52245-6104**

**PHONE: (319) 467-5299  
FAX: (319) 384-8353**

**DIRECTIONS TO UI Health Care North Dodge:**

**Building Address: 1360 N Dodge St, Level 2  
Iowa City, IA 52245**

**From I-80**

- Exit 246
- Turn South onto Dodge Street
- Turn Right on N Dubuque Rd
- Facility will be on the right.



**Andrology Laboratory  
Center for Advanced Reproductive Care**