



UPMC Fertility Preservation Program

UPMC | **MAGEE-WOMENS**
HOSPITAL

The **UPMC Fertility Preservation Program** is part of the pioneering **UPMC Magee Center for Reproduction and Transplantation** at UPMC Magee-Womens Hospital. We are a leader in world-class fertility preservation services for adults and children of all ages.

Our researchers focus on conditions that impact fertility. These range from diseases and genetic defects to aging and medical treatments for cancer. Our research also includes gender dysphoria and other issues.

Our doctors directly apply research insights to patient care and treatment. Working together, we are developing state-of-the-art technologies to preserve fertility and treat infertility.

Our services are offered in collaboration with:

- UPMC Magee-Womens Hospital
- The Center for Fertility and Reproductive Endocrinology at UPMC Magee-Womens Hospital
- UPMC Children’s Hospital of Pittsburgh
- UPMC Hillman Cancer Center
- Magee-Womens Research Institute

Our goal is to give you options to have the family you always wanted — or to add to the family you already have.

About Our Services

Adults can freeze sperm, eggs, or embryos to preserve their fertility, but there currently are no standard options to preserve the fertility of adults who are unable to produce eggs or sperm. The same is true for children who are not yet producing mature eggs or sperm. For these patients, our program is approved to freeze testicular tissue or ovarian tissue on an experimental basis. Our Center is pioneering next-generation technologies that will allow patients to use their tissues in the future to produce sperm or eggs and restore fertility.

Patients should talk to their doctors about their family-building goals and options to preserve fertility before starting treatments that could threaten their future fertility.

Contact Us

You can discuss your fertility goals and circumstances with a UPMC Fertility Preservation Program coordinator at **412-641-7475** or **fertilitypreservation@UPMC.edu**.

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Egg Freezing (Oocyte Cryopreservation)

- Process**
- 8 to 12 days of ovarian stimulation
 - Multiple self-administered injections
 - Monitor ovarian response with blood tests and vaginal ultrasounds
 - Eggs retrieved under sedation and frozen for future use
 - Infectious disease testing required before storing frozen reproductive cells

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- Time Frame**
- 2 to 3 weeks for procedure

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- Success Rate**
- More than a 35% live birth rate per embryo transfer in patients age 35 or younger

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- Risks**
- Side effects of medicines
 - Ovarian hemorrhage
 - Pelvic infection
 - Ovarian hyperstimulation

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- Costs**
- Costs associated with the procedure, medicines, infectious disease testing, and annual storage
 - Contact **412-641-7475** for additional information

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- Long-Term Implications**
- Annual cost of long-term storage
 - Future cost of assisted reproduction using frozen eggs

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- Other Considerations**
- Not an option for young girls who have not reached puberty or others who cannot produce mature eggs

Embryo Freezing (Emryo Cryopreservation)

- Process**
- 8 to 12 days of ovarian stimulation
 - Multiple self-administered injections
 - Monitor ovarian response with blood tests and vaginal ultrasounds
 - Eggs retrieved under sedation
 - Sperm from partner or donor are used to fertilize eggs and produce embryos that are frozen for future use
 - Infectious disease testing required before storing frozen reproductive cells

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- Time Frame**
- 2 to 3 weeks for procedure

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- Success Rate**
- More than a 35% live birth rate per embryo transfer in patients age 35 or younger

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- Risks**
- Side effects of medicines
 - Ovarian hemorrhage
 - Pelvic infection
 - Ovarian hyperstimulation

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- Costs**
- Costs associated with the procedure, medicines, infectious disease testing, and annual storage
 - Contact **412-641-7475** for additional information

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- Long-Term Implications**
- Annual cost of long-term storage
 - Future cost of assisted reproduction using frozen eggs

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- Other Considerations**
- Not an option for young girls who have not reached puberty or others who cannot produce mature eggs
 - Sperm needed from partner or donor to fertilize frozen eggs; sperm contributor may also have legal rights over the embryo

Ovarian Tissue Freezing (Experimental)

(Ovarian Tissue Cryopreservation)

Process	Research Protocol <ul style="list-style-type: none">• Laparoscopy with 3 small incisions under general anesthesia• One ovary is removed and frozen for future use• Infectious disease testing required before storing frozen reproductive cells
Time Frame	<ul style="list-style-type: none">• 1-day outpatient procedure
Success Rate	<ul style="list-style-type: none">• More than 130 live births from transplantation of frozen/thawed ovarian tissue to date• Methods to mature eggs outside the body now under development
Risks	<ul style="list-style-type: none">• Bleeding and infection• Trauma to adjacent organs
Costs	<ul style="list-style-type: none">• Surgical costs covered by research study• Tissue processing and first year cryostorage covered by research study• Annual storage fee after first year• Future costs associated with the use of frozen samples not yet defined
Long-Term Implications	<ul style="list-style-type: none">• Annual cost of long-term storage• Future costs of ovarian tissue transplantation or maturation of eggs outside the body followed by in vitro fertilization (IVF)
Other Considerations	<ul style="list-style-type: none">• For patients who are not able or do not have time to produce mature eggs• Risk of malignant contamination may prohibit ovarian reimplantation for cancer patients• Process for producing mature eggs outside the body still in development• 20% of harvested tissue will be donated to research• Annual follow-up with study team

Ovarian Suppression

(Lupron)

Process	<ul style="list-style-type: none">• Best if started at least 2 weeks before chemotherapy• Monthly injection during chemotherapy
Time Frame	<ul style="list-style-type: none">• A few weeks before chemotherapy and during chemotherapy
Success Rate	<ul style="list-style-type: none">• Conflicting results about efficacy
Risks	<ul style="list-style-type: none">• Bleeding and infection• Hematoma
Costs	<ul style="list-style-type: none">• Medicine cost per injection• May be covered by insurance for certain conditions
Long-Term Implications	<ul style="list-style-type: none">• None
Other Considerations	<ul style="list-style-type: none">• Side effects of medicine

Sperm Banking (Semen Cryopreservation)

Process	<ul style="list-style-type: none">• Sperm collected through masturbation and frozen for future use• Special collection rooms available at Magee• Drop off options available• 1 to 3 collections, 48 hours apart• Infectious disease testing required before storing frozen reproductive cells
Time Frame	<ul style="list-style-type: none">• 1-day collection• Second collection 48 hours later if desired
Success Rate	<ul style="list-style-type: none">• Sperm can be frozen indefinitely• 4% to 10% live birth rate per cycle with intrauterine insemination• More than a 35% live birth rate per embryo transfer with in vitro fertilization (IVF) in egg contributors age 35 or younger
Risks	<ul style="list-style-type: none">• Unable to collect semen sample• Emotional distress related to masturbation
Costs	<ul style="list-style-type: none">• Costs associated with the procedure, infectious disease testing, and annual storage• Contact 412-641-7475 for additional information
Long-Term Implications	<ul style="list-style-type: none">• Annual cost of long-term storage• Future costs for assisted reproductive procedures to use frozen sperm
Other Considerations	<ul style="list-style-type: none">• Return for semen analysis periodically (every 1 to 2 years) to monitor fertility status• Not an option for boys who have not reached puberty• Unable to freeze if sample has no sperm

Testicular Sperm Extraction (TESE)

Process	<ul style="list-style-type: none">• A surgical procedure where testicular tissue is obtained by biopsy, examined to confirm the presence of sperm, and then frozen for future use• Infectious disease testing required before storing frozen reproductive cells
Time Frame	<ul style="list-style-type: none">• 1-day outpatient procedure• 2 weeks to schedule
Success Rate	<ul style="list-style-type: none">• TESE success rates are dependent on patient variables (age, medical treatment, etc.)• More than a 30% live birth rate per transferred embryo (intracytoplasmic sperm injection required for fertilization)• Sperm can be kept frozen indefinitely
Risks	<ul style="list-style-type: none">• Bleeding and infection• Minimal pain and swelling
Costs	<ul style="list-style-type: none">• Costs associated with the procedure, infectious disease testing, and annual storage• Contact 412-641-7475 for additional information
Long-Term Implications	<ul style="list-style-type: none">• Annual cost of long-term storage• Future costs for assisted reproductive procedures to use frozen sperm
Other Considerations	<ul style="list-style-type: none">• For patients who cannot provide sperm in a semen sample• Possibility of not finding any sperm

Testicular Tissue Freezing (Experimental)

(Testicular Tissue Cryopreservation)

Process

Research Protocol

- A surgical procedure where testicular tissue is obtained by biopsy and frozen for future use
- Infectious disease testing required before storing frozen reproductive cells

Time Frame

- 1-day outpatient procedure
- 2 weeks to schedule

Success Rate

- Unknown fertility outcome at this point

Risks

- Bleeding and infection
- Minimal pain and swelling

Costs

- Surgical costs covered by research study
- Tissue processing and first year cryostorage covered by research study
- Annual storage fee after first year
- Uncertain future costs to use the frozen sample

Long-Term Implications

- Annual cost of long-term storage
- Protocols to use immature testicular tissue are under development
- Another procedure will be required to mature testicular tissue and produce sperm
- Future costs for assisted reproductive procedures to use frozen tissue

Other Considerations

- For patients with immature testicular tissue who are not able to produce sperm in their testes or semen samples
- 25% of the harvested tissue will be donated to research
- Annual follow-up with study team



**UPMC Magee Center for
Reproduction and Transplantation**

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