

Embryo Cryopreservation

Benefits and risks, and what to expect

This handout explains embryo cryopreservation and why you may want to choose this option.

What is embryo cryopreservation?

An *in vitro* fertilization (IVF) cycle often creates more than 1 *viable* embryo. These are embryos that can result in a normal pregnancy. Some of these embryos can be frozen (*cryopreserved*) and used later. *Embryo cryopreservation* is the process of freezing the embryos that are not used right away.

Before you start the IVF cycle, we will ask if you want any extra viable embryos to be cryopreserved. Please talk with your provider if you have any questions about this process.



If you choose to have embryo cryopreservation, we will freeze any good-quality blastocysts that are not used in the current IVF cycle.

What are the benefits and risks?

With cryopreservation:

- You may be able to grow your family without repeating an IVF cycle.
- We can use your viable embryos later. We might do this if it is safer or more effective to freeze your embryos rather than transfer them a few days after the egg retrieval.
- We can do genetic testing on the embryo(s), if you choose.

How do frozen and fresh embryos compare?

Transferred frozen embryos work just as well as transferred fresh embryos when creating a pregnancy. And, these pregnancies are the same as natural pregnancies in the number of miscarriages or birth defects that occur.

Doctors have studied children who were born from frozen embryos and children who were born from fresh embryos. They have not found any more health problems in the children born from frozen and thawed embryos.

How do you choose embryos for cryopreservation?

Most times in IVF, all fertilized embryos are grown to the *blastocyst stage* (day 5 or 6 after egg retrieval). If you agree to cryopreservation, we will freeze any good-quality blastocysts that are not used in the current IVF cycle.

Survival rates of frozen embryos depend on embryo quality. We will freeze only those that show normal growth and good *morphology* (appearance). This will help ensure a positive outcome in later cycles.

Good quality embryos have a high survival rate. Usually, more than 95% (95 out of 100) survive the freezing and thawing process.

How are embryos frozen?

Embryos are frozen using a method called *vitrification*. This method freezes embryos very quickly. It has higher survival rates than the slower methods that we once used.

How long can they stay frozen?

The frozen embryos are stored in liquid nitrogen at -321°F (-196°C). Good-quality frozen embryos are viable for a very long time. Healthy children have resulted from embryos that have been frozen for many years.

What else do I need to know?

You (and your partner, if included) have full control over what happens with your embryos.

Before we do your IVF cycle and create embryos, we will ask you to fill out an “embryo disposition” form. This form tells us what you wish to do with your embryos, if you do not use them in your own pregnancy.

Your choices include:

- Donating the embryos to another person or couple
- Donating the embryos to research
- Discarding the embryos
- Transferring the embryos to a storage facility that is not part of UW Medicine

Questions?

Your questions are important. Call your doctor or other healthcare provider if you have questions or concerns.

University Reproductive Care (URC): Call 206.598.4225 weekdays between 8 a.m. and 5 p.m.

After hours and on weekends or holidays, call 206.598.6190 and ask to page the URC provider on call.

Website:
<http://depts.washington.edu/obgyn/URC>