What to do with your unused frozen embryos.
A concise guide to a personal decision.

The only “right” decision is the one that’s right for you.
An important decision many IVF couples will eventually have to face.

Many couples trying to get pregnant via *in vitro* fertilization (IVF) create multiple frozen embryos. Fertility centers prefer having multiple embryos to make sure that healthy and viable embryos are available for transfer to the uterus. The remaining embryos are generally placed into frozen storage. Subsequent attempts at pregnancy are less costly if frozen embryos are available, and extra embryos spare the woman another round of unpleasant drugs to produce eggs.

But when you no longer need the frozen embryos for another attempt at pregnancy, you’ll be faced with an important decision: *What will you do with them?*

This brochure reviews and explains your options. A supplementary DVD includes short videos of IVF couples sharing their personal decision stories, and IVF experts discussing the decision process. This brochure also contains a questionnaire designed to help you and your partner better understand some of the feelings and beliefs that could influence your decision.

The decision you make about your unused frozen embryos is deeply personal. Talk it over with your partner. And talk it over with your fertility center to see which options it offers and how it might be able to help.

*The only “right” decision is the one that’s right for you.*

**New to IVF?**

When you’re focused on having a baby, deciding what to do with your unused frozen embryos is probably the furthest thing from your mind. But it’s important to know that such a decision might lie ahead. The best way to “cross that bridge when you come to it” is to start thinking and talking about it now.
What is an embryo?

In humans, the embryo is generally defined as the earliest stage of development, from the moment of fertilization up to about eight weeks. From the ninth week until birth the human embryo is usually called a fetus.

How old is a human embryo when it is placed in the uterus or frozen for potential later use?

Most fertility centers culture fertilized human eggs for 2-5 days before they are transferred to the uterus, or frozen for potential later use. At 5 days the embryo is a hollow microscopic ball of 50-250 cells called a blastocyst.

Check with your fertility center to see which options are available to you.
Donating your unused frozen embryos to another couple.

Not every couple that undergoes IVF treatment is able to produce viable embryos. By donating your unused frozen embryos to such couples, you could be giving them the chance to experience pregnancy, childbirth and the opportunity to become a parent.

Many couples that choose this donation option take comfort in the fact that they’re helping people “just like them” — people who have experienced the same emotional frustrations of infertility.

If you’re interested in donating to another couple, there are a number of ways to go about it:*

**Make an open donation.**
You choose the couple and openly donate your unused frozen embryos to them. You’re comfortable knowing who is receiving your embryos and they’re comfortable with knowing who they’re from.

**Donate anonymously.**
Some couples want to help another couple, but don’t want to know anything about them. Nor do they want the adult child to locate his or her biological parents. If this describes how you feel, then an anonymous donation may be right for you. Even in an anonymous donation, you may be able to designate characteristics about the receiving couple (see below).

**Designate characteristics of the couple receiving your embryos.**
Talk to your fertility center about specifying various attributes that would be desirable in a couple receiving your embryos.

**Designate the geographic location of the receiving couple.**
Although the chances of you or your children one day meeting a genetic sibling are very remote, you may feel more comfortable knowing that the child is growing up in another location.

* These are general guidelines only. For detailed specifics, please talk to your fertility center. It may be able to counsel and assist you in ways not included here.
Donating your unused frozen embryos to medical research.

Medical researchers can use frozen human embryos to culture embryonic stem cells (see sidebar). These stem cells are used to explore potential cures and treatments for a wide range of diseases and conditions.

You may be able to donate your unused frozen embryos to a specific research program. Here are some of the diseases and conditions with research programs that might potentially benefit from embryonic stem cell research:

- Alzheimer’s
- Autoimmune disorders
- Cardiomyopathy
- Diabetes
- Lou Gehrig’s disease
- Macular degeneration
- Multiple sclerosis
- Parkinson’s disease
- Skin regeneration for burn victims and diabetics
- Spinal cord injury

In addition, some fertility centers conduct their own IVF research and may be willing to accept your embryos.

If you’re interested in the medical research option, talk to your fertility center about how to facilitate your donation.

What are embryonic stem cells?

Embryonic stem cells are cells derived from the inner cell mass of a human embryo when it is 2-5 days old. Medical researchers are interested in stem cells because they can develop into any of the more than 200 cell types (e.g., heart cells, brain cells) found in the adult body. Stem cells cannot grow into embryos and fetuses. To derive embryonic stem cells, it is necessary to take critical cells out of the embryo. What is left no longer has the capacity to grow if transplanted into a uterus.
Allowing your unused frozen embryos to thaw and lose their viability.

Unused embryos are kept frozen — or cryopreserved — in liquid nitrogen at extremely low temperatures, usually around −196°C. Thawing involves removing them from the liquid nitrogen and allowing them to warm to room temperature.

Many fertility centers will responsibly dispose of embryos that have thawed and lost their viability. Talk to your fertility center about its specific thawing protocol.

If thawing and disposal isn’t an option you wish to pursue, there are three other options to consider: Donate them to another couple (see p. 3). Donate them to medical research (see p. 4). Or let them remain in frozen storage (see next page).
Keeping your unused embryos frozen.

You may choose to keep your unused frozen embryos frozen. There are fees for storage. Talk to your fertility center about their policy regarding long-term storage.

**How long can embryos be kept frozen and still be viable for either pregnancy or medical research?** No one knows. Fertility specialists do not fully understand the effects of long-term cryopreservation on human embryos. While some fertility centers report successful pregnancies with embryos after many years in storage, there are no generally accepted medical guidelines on how long an embryo can remain cryopreserved and still grow into a healthy fetus and baby, or be useful in medical research. Your fertility center will be the best source of information on this topic.
Final thoughts. And learning more.

Few decisions are wrought with so many emotional, personal, sensitive and complex considerations. Take your time. Explore every option. Get all the facts. Consult with your fertility center. Watch the enclosed DVD. And by all means talk it over with your partner. (The enclosed questionnaire can help start the conversation.)

Your decision to seek IVF treatment was a mutual decision. Choosing what to do with your unused frozen embryos should be a mutual decision as well.
Questions to ask yourself. And each other.

Here are some “thought-starter” questions that can help you decide what to do with your unused frozen embryos following the end of your IVF experience. Consider these questions after asking your fertility center about the options that are available to you.

There are three ways to answer these questions: 1) you and your partner answer them separately and then you review them together; 2) you answer the questions together; 3) you simply talk through the questions.

Remember, the only “right” answers are the ones that are right for you.

1. What image do you think of when you hear the term “embryo”?

2. What does an embryo mean to you? What does it represent?

3. At what point do you believe an embryo becomes a “human life”? 

(cont.)
4. What are your thoughts about donating your unused frozen embryos to another couple that is also trying to have a baby through IVF?

5. What are your thoughts about donating your unused frozen embryos to a research program that is trying to improve the IVF process or find a cure or treatment for a disease?

6. What are your thoughts about allowing your unused frozen embryos to thaw and lose their viability?

Your answers to these six questions will help you to identify the option that is right for you.

If you and your partner have different preferences for your unused frozen embryos, it is sometimes helpful to find a compromise by ranking your preferred options and writing down your thoughts regarding the “pros” and “cons” of each.
This publication was made possible by grant number EAAPA081010-02-00 from the Office of Population Affairs; U.S. Public Health Service; U.S. Department of Health and Human Services. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the U.S. Department of Health and Human Services.