

What happens to extra embryos after IVF?

By Laura Beil

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By the time she was in her 40s, Andrea Cinnamond was afraid she'd never be a mother. Then came the day in 2005 her daughter was born through in vitro fertilization, followed two years later by twin sons. Today, Kaitlin, Jack, and Aidan bounce around like Ping-Pong balls through their Boston, Massachusetts, home.

Cinnamond, now 49, and her husband are grateful for their healthy children and the medical science that helped create them. Yet she's haunted by the three embryos that were left over.

Like many women struggling with infertility, Cinnamond was delighted when a laboratory took sperm and egg and provided five chances for a second child after Kaitlin's birth. In many ways, infertility is a numbers game -- more embryos created means more tries for success. She was asked in the beginning about the matter of surplus embryos, but how could she think about those she might not want when her thoughts were consumed by the children she longed for?

When the time came to decide about the extras, she says, "I thought I was going to be calm and casual." And she was, until the first bill arrived to keep the embryos frozen. "I was petrified," she says. "There was no practical reason to keep them. I just wasn't ready to make the decision not to keep them." She paid the \$600, hoping that her thoughts would crystallize as time passed. This year, she's paying the bill again.

Michelle DeCrane of Austin, Texas, has also been paying for embryo storage for two years. She has a 2-year-old daughter -- and six frozen embryos. "I would love to have another baby, if I were younger -- I'm 40 -- and if money was not an object." She finds herself trapped in a mental loop; while she doesn't have the same mind-blowing love for the embryos as she has for her daughter, neither does she consider them anonymous laboratory tissue. And there's another wrinkle: One of the six embryos is biologically hers and her husband's; the five others were created with donor eggs and his sperm. "What do people do?" she asks. "You have all of these embryos in all of these labs. Are people going to keep doing what I'm doing and pay the \$40 a month ad infinitum?"

Some will. Experts estimate that hundreds of thousands of embryos have accumulated in fertility clinics throughout the country, some awaiting transfer but many literally frozen in time as parents ask themselves questions few among us ever consider with such immediacy: When does life begin? What does "life" mean, anyway? Parenting.com: Pregnancy signs from head to toe

In a recent survey of 58 couples, researchers from the University of California in San Francisco found that 72 percent were undecided about the fate of their stored embryos. In another study last year of more than 1,000 fertility patients from nine clinics, 20 percent of couples who wanted no more children said they planned or expected to keep their embryos frozen indefinitely. Couples have held on to embryos for five years or more, waiting on an epiphany that never comes. Nadya Suleman, the now-famous mother of octuplets, told NBC News that she had all eight of her embryos implanted because she couldn't bear to dispose of any of them.

"When you're pouring your money, your heart, and your soul into creating an embryo and creating a life, the last thing you want to think about is how you're going to dispose of it," says Anne Drapkin Lyerly, M.D., a professor of obstetrics and gynecology at Duke University Medical Center. Until the storage fee comes due. At that point, couples generally have to choose among four options:

Donating to other infertile couples

The first thing many parents want, once they've finished forming their own families, is to let another infertile couple have the embryos. "On the face of it, it's one of the most beautiful, altruistic things in the world," says Bill Petok, Ph.D., a Baltimore, Maryland, psychologist who specializes in counseling infertile couples. Yet, he adds, donating your embryos can be an emotionally fraught process, and depending on the state you live in and your clinic, it can be legally complex as well. The process may be as simple as filling out paperwork or as involved as hiring an attorney to navigate a legal labyrinth and locate a recipient family. Parenting.com: The right way to space siblings (for you)

Many couples find they can't cope with the unknowns. Will other parents love the siblings of your children as much as you love your own kids? Would you ever stop worrying about them? Would you want to stay in contact with the family? Deborah Bohn, whose children are 6 and 8, knew she wanted to donate her five unused embryos to another couple to give them a chance at birth, but she didn't want to know anything more. "I couldn't take the thought of knowing I had another child," she says. "I knew my heart couldn't handle it. We're all better off not knowing." Though she now lives in Nashville, Tennessee, her embryos were stored in a California clinic, which was set up to handle the donation. She and her husband were able to stipulate basic terms, such as the education level and religion of the parents receiving the donated embryos, and they accomplished the entire transfer just by filling out forms and sending them to their clinic. "It was probably the hardest decision I've ever had to make," Bohn says. "I cried tons." Yet she has no regrets, and today, no sadness.

Donating to medical research

Stephanie Smith of Odessa, Missouri, would have liked more children through in vitro, but complications from the birth of her twin girls two years ago left her unable to get pregnant again. She had five embryos left and spent more than a year reconciling her

choices with her religious convictions. Those five clusters of cells forced her to think, almost daily, about how she defined life. She considers herself pro-life, so donating to another infertile couple felt natural. The more she and her husband thought about it, however, the more unsettled they became. The questions she had were too big to be left unanswered. She didn't know if she'd ever stop searching crowds for little girls who looked just like hers. "It's a life-altering decision," she says.

They eventually decided to donate the embryos for medical research, as a gesture of gratitude to a system that had given them their dreams. "We were ultimately still giving life, just not for those particular five embryos," she says.

Many couples find donating to research a middle ground that gives the embryos a status somewhere between born children and simple clumps of cells. Although the embryos will not survive, giving to science can be a very caring act, says Lyerly, who has studied the issues surrounding frozen embryos. Couples who donate to research, she says, "feel like they were helped by science and they want to give back."

Thawing without donating

Some couples find themselves unable to escape the shadows of infertility without allowing their embryos to pass on naturally and with respect. Lyerly knows of a few women who've found a doctor willing to perform a "compassionate transfer," implanting the embryos into the woman at a time pregnancy is unlikely -- envisioning it as a way to return the embryos to their keeping. Other couples want to perform a ceremony of some sort during the thawing and disposal to show their reverence. Parenting.com: "I Didn't Even Know I Was Pregnant!"

Some parents who want other choices besides thawing discover that they have none. Kelly Damron of Phoenix, Arizona, was hoping to donate her three embryos to science after she'd had her twins through in vitro. "Our clinic said that wasn't an option," she says. She wishes now she had asked about the possibilities for unused embryos before choosing a physician. "I asked every other imaginable question," she says. "I didn't even think to ask that one." So she paid for another year of storage; it was too hard to let go at that moment. But, eventually, she did. "Some days I wish they were still there," Damron says. "I wouldn't say that I grieved for them, but I definitely had feelings about the loss."

Postponing the decision

Many parents find they are simply unable to decide. But experts caution that stalling too long might unintentionally shift the dilemma onto someone else. Parents die. Marriages end. People move and forget to tell the clinic, leaving fertility-center staff with unpaid bills and their own difficult choice. "Not making a decision is clearly making a decision," Petok says. One Houston couple, after filing for divorce, fought a legal battle for more than five years over custody of their frozen embryos. She wanted them implanted in herself so that she could have a baby; he wanted them destroyed. In 2008, the woman lost the case.

And sometimes, couples decide the mental paralysis will never go away. "I don't think anybody knows what their opinion is until they're in this situation," says Ginny Scott of Austin, Texas. She had one embryo left after giving birth to her children, now 7 and 6. After two years of deliberating possibilities that never seemed right, she and her husband decided to use it to have another baby -- her now 3-year-old daughter. One unused embryo, she says, "changed my whole life." She's thankful for her daughter, but also thankful she had only one embryo remaining. Parenting.com: Will you still be fertile in 5 years?

Consider the predicament of Kim Maksymuik, a mother of twins who lives near Toronto, Canada, and who has stored five embryos for more than five years. "Every time that bill came in the mail, I couldn't say 'Just let them go,'" she says. Today, at 48, she's decided to have more children, even, if necessary, through a surrogate. "It's a very emotional journey," she says -- a journey to a place she thought she'd left behind.

The promise of stem cell research

Fewer than two months after taking office in January, President Obama lifted restrictions on federal funding for stem cell research, reversing a policy that had put surplus embryos at the crossroads of science, ethics, and religion for eight years.

Researchers are interested in embryonic stem cells because they have the unique potential to become any type of cell in the body and may hold promise for treating conditions such as Alzheimer's disease, Parkinson's, spinal-cord injuries, and others that involve the death of brain cells and other nerve tissue. But research had been greatly impeded because scientists were limited to using stem cell lines that were created before August 2001. Parenting.com: Fertility Calculator: Find your ovulation date

The lifting of the ban means that eventually more parents should be able to donate unused embryos for this research. "The reason this kind of donation is so appealing is that it doesn't just end with the embryos," says Cecily Kellogg of Philadelphia, Pennsylvania. "The cells have a good chance of being used for years and years." After the birth of her daughter three years ago through IVF, Kellogg had eight unused embryos; a placental abruption after that birth and a life-threatening complication with a previous pregnancy meant that future pregnancies were not recommended. Because her mother-in-law has Alzheimer's, she and her husband found it heartening that they might be able to help research. At the time she and her husband were making their decision, Kellogg was told that she couldn't donate her embryos from her home state; but because they were created across the border in New Jersey, donation was possible and rather easy.

The new law won't necessarily end the patchwork nature of stem cell research funding. Almost immediately following the March announcement from the Obama administration, some state governments moved to restrict such research. So the laws -- and simplicity of donation -- may still vary from state to state, and could change as states ease or tighten restrictions. The full impact of the policy won't be clear until the National Institutes of Health issues new guidelines on embryonic stem cell research. To learn more, visit stemcells.nih.gov.

The professionals at fertility clinics may be supportive about the issue of leftover embryos -- but couples shouldn't be shocked if they aren't, says Barbara Collura, executive director of RESOLVE: The National Infertility Association. Clinic staff often don't want to discuss options they aren't set up to handle, or they don't want to be seen as advocating one choice over another. "They don't want to be in a position where someone says, 'You advised me to donate my embryos and it was a huge mistake,'" she says.

If your clinic isn't providing the help you need, there are heavily trafficked blogs, chat rooms, and other places online to find more information. Some examples:

The American Society for Reproductive Medicine can help you locate a counselor trained to help undecided couples explore their options and sort through the legal and emotional complications. Click on the link for "Mental Health Professionals."

Lawyer and radio host Dawn Davenport's Web site (Creatingafamily.com) has a list of resources for couples. You can also listen to a series of radio shows she produced on the issue in May and June 2008.

The American Fertility Association has a fact sheet on choices, and a toll-free number couples can call for support.

The RESOLVE Web site provides info on donating embryos to other couples and locations for workshops on the legal, medical, and mental-health aspects of this topic, both for prospective donors and for recipients.