Egg Freezing for a Future Pregnancy: What to Know

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WebMD Health News

Oct. 29, 2014 -- Soon after Apple and Facebook announced plans to offer workers egg freezing as a health plan benefit, debates began about whether this newest corporate-America perk is good or bad for women, the workplace, and motherhood.

No matter what side you take in that debate, you may have questions about the technique itself.

WebMD asked three experts to address the questions they most often get about egg freezing.

What is egg freezing, and how long has it been available?

Women can have their own eggs frozen and stored, or can have donor eggs frozen and stored if there's a medical issue that prevents them from using their own.

The focus is often on using the technique for working women who aren't ready for motherhood. But the organization for fertility doctors, the American Society for Reproductive Medicine, hasn't yet endorsed the procedure solely for this purpose. The group says there isn't enough data on the "safety, efficacy, cost-effectiveness, and emotional risks" of elective egg freezing for it to be recommended.

Also, some women may choose to have their eggs frozen because of medical issues, such as cancer treatment, that may affect their fertility.

About 5 million babies have been born worldwide after regular in vitro fertilization, or IVF, Richard J. Paulson, MD, estimates. He's chief of reproductive endocrinology and infertility at the Keck School of Medicine, University of Southern California. IVF combines eggs and sperm outside the body in a lab, allowing the sperm to fertilize the eggs. Once an embryo or embryos form, they're then placed in the woman's uterus.

Exact statistics on the number of babies born from frozen eggs are hard to get, says Zsolt Peter Nagy, PhD, an Atlanta embryologist and laboratory director. But he thinks it's about 5,000 births worldwide.

The process of freezing eggs was first described in people in 1986, Nagy says. The first reported birth from a frozen egg was that year.

A newer technique known as vitrification uses ultra-rapid cooling that is not true freezing, but causes less damage to the egg than actual freezing, Nagy says.

What else does egg freezing involve?

First you receive fertility drugs to spur your ovaries to help more than one egg mature at a time, says Daniel Shapiro, MD, an Atlanta reproductive endocrinologist. This is called ovarian stimulation. It can help your body make 20 or 25 mature eggs (which are ready to be to be fertilized) per month, Shapiro says. That's instead of the usual one mature egg women release, or ovulate, into the uterus each month.

The procedure involves a variety of medications, including shots. Your doctor may give you other medicines to help your eggs mature and to prevent them from being released too early.

To retrieve the eggs, a doctor guides a needle into each ovary with an ultrasound probe, and harvests the mature eggs while the woman is sedated. They can then be frozen and thawed as needed, and mixed with sperm to form embryos.

In years past, Shapiro says, it took many thawed eggs to achieve fertilization and produce a <u>pregnancy</u>. With the newer freezing technique, the efficiency went up, and fewer eggs are needed to achieve a pregnancy and live birth, he says.

Eggs, once frozen, last indefinitely, Nagy says.

What do we know about egg freezing so far?

In 2012, the American Society for Reproductive Medicine lifted the "experimental" label from egg freezing. They did so after reviewing four trials comparing fresh and frozen eggs. The society concluded in a new guideline that fertility and pregnancy rates were similar with fresh eggs and with eggs frozen by the newer method of vitrification.

But the organization expressed "concern" about elective egg freezing to delay pregnancy, saying women who wish to freeze their eggs for this purpose "should be carefully counseled about age and clinic-specific success rates" of egg freezing vs. conceiving on their own, as well as be told about the risks, costs, and alternatives.

Egg freezing "isn't perfect," Paulson says, but it's an option for many women.

Aside from the common reasons listed above, why else might women want to do this?

Freezing can help couples limit the number of embryos they create when doing IVF, Nagy says.

This is important, he says, especially for those who have moral objections to discarding embryos, he says.

Before egg freezing, he says, couples had to decide how many embryos to create with retrieved fresh eggs. Many were reluctant to discard any of the fresh ones.

Now, though, with the option of egg freezing, they can limit the number of embryos they request at first, and know that the additional fresh eggs retrieved can be frozen for use later, if the first IVF attempt fails.

Is there an ideal age to freeze your eggs?

Younger is better, experts agree. "If you do egg [harvesting and freezing] on someone in her 20s, you could probably get a good number of eggs, 15 to 25," Nagy says. "Four or five eggs at one time would be enough to produce one pregnancy, one <u>baby</u>."

"If you look at someone 40, from that person you may only collect 8 to 10 eggs. And perhaps she would need 25 eggs to have one baby." Some eggs don't survive the thawing process, and some eggs that are retrieved won't fertilize, among other problems.

If women can freeze their eggs before age 35, Paulson says, "that will make a big difference," with better outcomes.

What are the risks linked to egg freezing for the mother and baby?

Since the procedure is relatively new, there's not extensive research on the risks yet.

For now, Paulson says, it may be fair to say the risks tied to egg freezing are similar to those with other IVF procedures. "If you can't get pregnant naturally and need IVF, there is a slight increase in pregnancy complications and fetal abnormalities," he says.

But it's not clear if those risks are due to the procedure itself or to something about the people who need IVF, Paulson says.

When Nagy and Shapiro looked at their own database of patients, though, they didn't find any evidence of an increase in birth defects among babies born with frozen eggs.

In fact, Shapiro says, they have found a slight decrease in problems. But he suspects that is due to the high number of frozen eggs that came from donors who are young, healthy, and had been screened for genetic problems.

If you don't have egg freezing as an employee perk, what can you expect to pay?

Fees vary greatly from center to center and among different locations in the country.

When a woman is freezing eggs to delay motherhood, Shapiro says, it can cost about \$7,000 to 15,000, not including fees for ovarian stimulation to mature more eggs for use. Those medications can add on another \$2,000 to \$6,000, depending on how responsive the woman is to the medicines, he and Nagy say.

In some areas, though, a round of freezing, including medications, is about \$10,000, Paulson says. Storage fees of about \$500 a year are another expense.

Costs for women with cancer can be lower, and some assistance programs are available.

SOURCES:

Richard J. Paulson, MD, chief of reproductive endocrinology and infertility, Keck School of Medicine, University of Southern California, Los Angeles.

Zsolt Peter Nagy, MD, PhD, Atlanta embryologist, founder of My Egg Bank donor egg bank.

Daniel Shapiro, MD, Atlanta reproductive endocrinologist, founder of My Egg Bank donor egg bank.

American Society for Reproductive Medicine, "Mature Oocyte Cryopreservation: A Guideline," October 2012. © 2014 WebMD, LLC. All rights reserved.