

Fertility options move way beyond traditional sperm and embryo banks

April 18 2011, By Patricia Anstett

The joy of motherhood - to twin boys, no less - more than overshadows Ewelina Saputo's diagnosis of leukemia seven years ago .

Saputo was just 23, a new college graduate, when she found out she had [cancer](#).

After the shock settled in, her University of Michigan doctor talked to her about a fertility preservation technique that might someday allow her to have a baby.

"I knew nothing about it," said Saputo, 30, of Sterling Heights, Mich., who thought her chances of getting pregnant were nil. Sapu to and her fiance and now-husband, Dominic, chose to freeze and bank eggs developed into embryos with his sperm, a well-established technique known as [in-vitro fertilization](#).

She followed her University of Michigan physician to the Gago Center for Fertility in Brighton, which helped her get pregnant. The boys are now 10 months old.

But in a fast-developing field of medicine called oncofertility, leading medical centers have expanded fertility preservation options for cancer patients even further to offer both traditional services like sperm and embryo banking along with newer techniques for the nation's estimated half-million American [cancer survivors](#) of reproductive age.

The newest options include ways to harvest ovarian and testicular tissue from children even before they reach puberty and improvements in harvesting and freezing unfertilized eggs for cancer patients who must begin treatment immediately or who don't have a partner to fertilize the eggs.

"I think we can give some very realistic options to patients," said Dr. Kenneth Ginsburg, director of the Henry Ford Health System's Center for Reproductive Medicine in Troy. Later this month, the center expects to begin offering ovarian tissue harvesting, a minimally invasive procedure that takes slivers of a woman's ovaries, freezes and banks them, just the way embryos and sperm have been stored for decades . The tissue is later thawed and implanted, and then begins producing eggs again.

Henry Ford Health also will begin egg harvesting - a procedure that stores unfertilized eggs from a woman who can't afford to wait two months to stimulate and fertilize them because her cancer treatment must begin immediately.

For now, the health system will limit the ovarian tissue harvesting program to women 18 and older, but Ginsberg hopes to get approval to expand it to younger patients.

Elsewhere, the University of Michigan has offered egg banking since 2005. It more recently began an ovarian tissue banking program through a national network headed by Northwestern University. Ford, too, is part of the Oncofertility Consortium.

The Wayne State University School of Medicine and its affiliated Hutzel Women's Hospital at the Detroit Medical Center in Detroit also awaits

internal approval to offer egg freezing soon, said Dr. Elizabeth Puscheck, chair of obstetrics and gynecology at WSU.

As promising as the treatments may seem, they bring questions, including ethical issues about what to do with banked tissue, embryos, eggs and sperm that cancer patients may not want to use later.

The treatments, along with medicine to stimulate embryo production, also can be very costly, as much as \$12,000 or more for each service - fees not usually covered by insurance. Blue Cross Blue Shield of Michigan, for example, does not pay for any fertility-related procedures for cancer patients, spokeswoman Helen Stojic said.

Financial help is available through Fertile Hope, a program of cyclist Lance Armstrong's nonprofit Live Strong Foundation. But not all patients know about it.

A bigger problem is that many doctors still don't tell patients they have options.

Fewer than half of the nation's cancer doctors follow national guidelines published in 2006 by the American Society of Clinical Oncology, a national organization of cancer providers, according to the National Cancer Institute .

"This is a quality of life issue that dramatically affects women, even if they don't go through with it," said Dr. Senait Fisseha, medical director of the Center for Reproductive Medicine at U-M.

Gina Shaw, author of the newly released "Having Children After Cancer" (Celestial Arts, \$16.99), said many cancer patients want to have

children eventually - in part to show that they survived the disease and have gone on with their lives.

"It's like dancing on cancer's grave," said Shaw, a breast cancer survivor who adopted a child and then gave birth to two more after her own treatment. She tells cancer patients they have many options if they want a family, including adoption. "If you survive cancer and you fought through this, you can be a parent," she said.

One southeast Michigan man who had chemotherapy in his teens banked sperm at International Cryogenics of Birmingham, where nearly two-thirds of the clientele are cancer patients, said Mary Ann Brown, company president.

After he married, he and his wife had four children and now plan to retrieve his sperm for a fifth pregnancy. "God spared my life and now has given me a family," said the man, who asked not to be identified because he has not told some of his family that the children were born from sperm he banked years ago.

Keri Holloway, 31, of Pittsfield Township banked her embryos after discussing the issue with her boyfriend Jon, who is now her husband. She is a breast cancer survivor who carries a gene mutation that she might pass along to her child. Having just undergone a preventive mastectomy to limit her chances of a cancer recurrence, she and her husband are ready to start a family.

They will try on their own, she said, before trying to get pregnant with their banked embryos - a costlier option.

"I wanted control of something," she explained. "I was told so many things about how my life would change because of cancer. Having the option of harvesting the eggs gave me a little relief. It made me feel I

still may be able some of the things I have wanted to do."

ETHICISTS SEEK GUIDELINES WHEN LONG-TERM ISSUES ARE UNKNOWN

Fertility clinics and cancer programs need to institute clear ethics guidelines for experimental fertility preservation procedures in young cancer patients, leading cancer and medical ethicists say.

Arthur Caplan, Ph D, professor of medical ethics at the University of Pennsylvania in Philadelphia, said centers should have policies about issues such as the subsequent right to banked eggs, embryos and reproductive tissue in case of a cancer's patient's death.

Centers also should inform patients that some of the treatments are very experimental and that the risks and benefits are unclear, he said. A child born from banked tissue or eggs could go on to develop birth defects or cancer, and centers need to address ethical and liability issues that might arise years later.

Too often the therapies are "pitched as a hopeful option, and that's a mistake," said Caplan, the co author of a chapter on the ethics of fertility preservation in "Principles and Practice of Fertility Preservation," (Cambridge University Press; \$95), a textbook released in February.

Dr. Otis Brawley, chief medical officer of the American Cancer Society, said there simply hasn't been enough research to tell cancer patients whether fertility preservation techniques will result in a safe, successful pregnancy. "I'm a little concerned that when people consent to this, some may not fully appreciate how experimental they are later on," he said .

Young children also may need an unrelated adult or "surrogate decision maker" to help understand issues, Brawley and Caplan said. Consent to bank tissue could be posed in two parts, one from parents approving the banking of tissue and another years later requiring a child's subsequent consent before the tissue could be used.

Centers also should help patients with health documents called advanced planning directives that stipulate a patient's desire for future medical decisions, Caplan said.

Dr. James Fahner, division chief of pediatric cancer at the Helen DeVos Children's Hospital in Grand Rapids, said frank discussions about fertility have been a standard of care there for as long as 10 years. The center developed guidelines for the discussions as it saw rising rates of cancer survival in pediatric patients.

"This is one of those good problems, and I say problems in quotation marks," he said.

Each child has a different level of interest and maturity on the subject of sex and fertility, Fahner said. The talks include a candid discussion about the risks of second cancers, infertility caused by cancer treatments and other issues.

"Lots of people already are uncomfortable talking about sex," he said. "Now you have people you barely know who want to start a discussion on fertility and sperm banking. It takes a lot of poise to be part of that discussion."

The hospital uses a child life specialist, Rhys VanDemark, who has been particularly good talking to boys. He first talks to them about something, such as a sport or hobby, that interests them, then he tries to delicately move the subject to fertility.

He tells them "if you ever want to talk about this you can, but if you don't, don't worry. I won't bring it up."

HOW TO GET HELP

The Lance Armstrong Foundation is a nonprofit resource group started by cyclist and cancer survivor Lance Armstrong for cancer patients. Its Web site and hotline link survivors to help and support. The organization's Sharing Hope initiative links patients to discounts at 300 fertility centers and sperm banks around the country, as well as to donated medicines to boost embryo production for [cancer patients](#). Details: www.fertilehope.org or 866-965-7205 .

The American Cancer Society has a brochure explaining fertility options: [www.cancer.org/acs/groups/cid/ . . . ntent/002854-pdf.pdf](http://www.cancer.org/acs/groups/cid/. . . ntent/002854-pdf.pdf) .

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