

# "Sisters' Ovary Transplant Allows Conception After Cancer"

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Sisters Joy Lagos and Maeapple Chaney have always been close, but when bone cancer rendered Lagos sterile, Chaney gave her sister the greatest gift of all: the ability to create life. (Photo courtesy ABCNews.com)

Ever since they were little, sisters Joy Lagos and Maeapple Chaney have been close.

"She was always standing up for me," Lagos says of her sister. "She was always making sure that I was taken care of."

But while they have shared much over their lives, a recent pair of operations has brought them even closer.

When Lagos suffered from cancer, Chaney donated the bone marrow needed to save her life.

And when the cancer treatment rendered her sister sterile, Chaney donated an ovary to give her a chance at conceiving.

The procedure was performed by Dr. Sherman Silber, director of the Infertility Center of St. Louis at St. Luke's Hospital in Chesterfield, Mo. and author of the book "[How to get Pregnant](#)".

But this operation, performed on Feb. 5, is believed to be the first whole-ovary transplant ever done in the United States. And the fact that Lagos and Chaney are not identical twins makes the surgery even more remarkable.

While Lagos will have to wait for three months to see whether the transplanted ovary allows her to ovulate and conceive normally, Silber and other fertility experts are already looking at the advancement as a possible therapy for more women in years to come.

**Delicate Surgery a Technical Feat**

The advanced microsurgery required to transfer one of Chaney's ovaries into Lagos' body is a feat of medicine that would not have been possible years ago.

"Technically it is very difficult, because the artery that supplies the ovary is tiny," Silber said. "It's about a third of a millimeter in diameter. This is about a smaller blood vessel you could ever imagine."

Because of this, much of the work had to be done under a microscope, and the stitches were made using a thread and needle invisible to the naked eye.

Another issue that would normally have made the transfer difficult -- or even impossible -- is that of compatibility. Normally, a recipient's immune system will reject tissue from a donor, even if that donor is a

But Chaney says she did not hesitate at the chance to allow her sister to have a natural pregnancy.

"She's my sister," Chaney said. "I think anyone in that same circumstance would do the same thing; just not many people are put into that circumstance. I get to be the lucky one to have all these great experiences."

### **The New IVF?**

Silber says that he hopes the technique will someday lead to female cancer patients being able to freeze their ovaries before they undergo therapy, allowing them to preserve their fertility after treatment.

But will the procedure become widely available to most infertile women? Not likely, said Dr. Richard Paulson, director of USC Fertility in Los Angeles.

He said that for most women, the immunosuppressant drugs necessary to prevent rejection could also severely limit their ability to maintain and complete pregnancy.

"Those medicines are typically quite toxic to the developing fetus, and they would also be toxic to the reproductive tract," he said.

Paulson added that a far simpler method currently exists.

"In most circumstances, it is far easier to transfer one egg than the whole ovary," he said. "It would still be safer to stimulate the sister's ovaries, get a few eggs out, and transfer them to the recipient. This is far and away a simpler way to go."

He says, however, that such operations could be plausible for a wider range of women in the future if researchers perfect the techniques used to freeze whole organs for later use.

And however unusual, the procedure may prove to be a precious gift for Lagos and her husband Rodrigo, Chaney's rare gift is a true blessing.

"The best thing I can do is be the best parent I can be, the best husband I can be and take care of her sister forever and ever -- love her, be her friend, have her be a part of our lives to really also enjoy what she has given to our family," Rodrigo Lagos said.

"I don't think there's a way to say thank you," Joy Lagos said. "I will thank her by being the best mom that I can. The kind of mom that she is."