



The Banking of Sperm and Eggs before Cancer Treatments

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Both chemotherapy and radiation can affect sexual organs and how they work. The American Cancer Society addresses the potential effects on male fertility this way:

"Chemo may lower the number of sperm cells, reduce their ability to move, or cause other changes.... Because permanent sterility (infertility) may occur, it's important to discuss this issue with your doctor BEFORE you start chemo. You might want to think about banking your sperm for future use."

Various moral concerns arise in the wake of the proposal to freeze reproductive cells like eggs or sperm. Catholic teaching has always stressed the importance of the marital act in bringing about new human life. Even if sperm were procured in a morally-acceptable way — i.e. not through withdrawal or masturbation — the subsequent use of the sperm sample would involve techniques that were either directly immoral (such as *in vitro* fertilization or intracytoplasmic sperm injection), or at least of a dubious moral character (such as Gamete Intrafallopian Transfer [GIFT] or intrauterine insemination [IUI]).

These latter two techniques, GIFT and IUI, have never been directly mentioned in official Church documents, so the question of whether they might be morally allowable continues to be discussed among Catholic moral theologians. GIFT involves collecting sperm after the marital act, placing it near an egg — but separated by an air bubble — within a thin, flexible tube called a catheter. After insertion into a woman's reproductive tract, the sex cells are injected into her fallopian tube so fertilization can occur inside her body, rather than in a petri dish. Meanwhile, IUI (also known as artificial insemination or AI) involves the placement of sperm into a woman's uterus by a catheter or a means other than a natural act of intercourse.

An important Vatican document known as *Donum Vitae* (On the Gift of Life) emphasizes that morally acceptable interventions used in procreation cannot be a substitute for the marital act but should serve to facilitate that act to attain its natural purpose. Even when sperm is collected in an acceptable manner, by using a silastic sheath during marital relations (i.e. a perforated condom without any spermicide), it still

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appears that the subsequent steps of GIFT and IUI involve a substitution/replacement of the conjugal act by injecting the sex cells into the woman's body via a cannula. In other words, the marital act does not itself cause a future pregnancy but only enables the collection of sperm, which is then used for another procedure that brings about the pregnancy.

For these reasons, GIFT and IUI do not appear to be morally acceptable, and I generally discourage married men undergoing cancer treatments from banking their sperm, since there do not appear to be any legitimate procreative uses once the sample has been stored.

The situation is more nuanced when it comes to the question of banking a woman's eggs or ova. We can identify at least one technique for assisting procreation called LTOT, or Low Tubal Ovum Transfer, that would be morally acceptable and could be carried out using previously-frozen eggs. Originally designed for women with blocked, damaged, or diseased fallopian tubes, LTOT relocates her egg, placing it into the fallopian tube below the point of damage so that her husband's sperm, introduced into her body by the

marital act, can reach the egg and bring about fertilization. LTOT, however, is performed only rarely, and it can be challenging to find a reproductive specialist who routinely does the technique.

There are, moreover, safety concerns about the process of egg retrieval from a woman's body, about the high-dose hormones used, and about cryopreservation of the eggs. Strong chemicals are used in the freezing process, and no one knows how much the eggs might absorb. Moreover, there has been little systematic follow-up of children born from frozen eggs, so it remains unclear whether they face increased health risks when they arise from an egg that has been frozen and thawed.

In principle, nevertheless, if the egg harvesting step could be carried out with low risk to women, if the egg freezing process would not cause any deleterious effects on children who might later come into being, and if the eggs were only used for morally legitimate purposes like LTOT, freezing a woman's eggs would appear to be morally allowable.

Another emerging method of preserving fertility for cancer patients relies on the removal and freezing of sections of the ovary (rather than

individual eggs). This ovarian tissue can later be grafted back into a woman's body following chemotherapy allowing her to again ovulate naturally and, in some cases, conceive naturally. A number of babies have been born as a result of this technique, and insofar as a woman were enabled to conceive a child through marital acts with her husband, this approach also would not seem to raise any fundamental moral concerns.

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