

3. Medical Treatments Affecting Fertility

3.1 Cancer Treatments and Male Fertility Problems

Cancer treatments can negatively affect male fertility. According to the American Cancer Society, the risk of chemotherapy causing infertility varies depending on the age of the patient, the type of drug(s) used, and the doses of the drug given. (1) After chemotherapy treatment, “sperm production slows down or might stop altogether.” (2) Usually, some sperm production “returns in 1 to 4 years, but it can take up to 10 years.” (3) If it has not recovered within 4 years, it is less likely to return. (4) Further, “men older than 40 may be less likely to recover their fertility after treatment.” (5)

A male’s fertility can also be negatively affected by radiation therapy to the testicles or pelvic area as well as by radiation to the brain which affects the hypothalamus and pituitary gland, which release hormones related to the production of sperm. (6) Cancer surgeries involving the male reproductive system can likewise impact fertility. (7)

A common method of trying to preserve fertility for men undergoing cancer treatment is sperm banking. (8) Before cancer treatment, sperm are collected and frozen for later use with artificial insemination, in vitro fertilization (IVF), or in vitro fertilization with intracytoplasmic sperm injection (IVF-ICSI). (9)

IVF and IVF-ICSI are not morally permissible procedures; see *Handbook section 2.3 In Vitro Fertilization*. The *Instruction on Respect for Human Life in its Origin and On the Dignity of Procreation (Donum Vitae)* from the Congregation for the Doctrine of the Faith states that artificial insemination by husband (also referred to as “homologous artificial insemination”) “cannot be admitted except for those cases in which the technical means is not a substitute for the conjugal act, but serves to facilitate and to help so that the act attains its natural purpose.” (10)

Nicholas Tonti-Filippini, an Australian physician and bioethicist, has given the following commentary on this principle:

The statement in “Donum Vitae” concerning homologous artificial insemination is puzzling. It is difficult to understand what the authors had in mind. However, it is possible that they foresaw the following instances of artificial insemination...

A man who had become sterile from some form of therapy, such as for a carcinoma, might have had the foresight to freeze his own sperm (having been licitly obtained), prior to the therapy. The sperm might then be used by the spouses in the context of the conjugal act, knowing that the ejaculate was sterile, but adding to it the previously stored sample. (11)

Qualifying conditions should be carefully noted. First, the sperm to be frozen must be obtained by a morally licit method, e.g., by being collected in a perforated condom or Silastic sheath during an act of sexual intercourse. (12) The American Cancer Society lists other methods of obtaining sperm either before or after cancer treatment (13): masturbation (including use of a vibratory stimulation device); sperm aspiration and extraction procedures such as percutaneous epididymal sperm aspiration (PESA) (14), microsurgical epididymal sperm aspiration (MESA)

(15), testicular sperm extraction (TESE) (16), and micro-TESE (17); and collecting sperm from the urine of men with retrograde ejaculation (18). The Church's opposition to masturbation is well known. (19) Should sperm be obtained from a husband exclusively by the aforementioned procedures of sperm aspiration or extraction from male genital organs or from a man's urine *for the purpose of conceiving a child through artificial insemination*, we would have a case in which a technological procedure illicitly replaces the conjugal act.

A second condition is that the insemination to reintroduce the sperm into the woman's body must take place "in the context of the conjugal act," which may be interpreted as immediately before or immediately after an act of sexual intercourse. (20) This represents a procedure different from the standard case of artificial insemination, which takes place in a clinical setting completely apart from an interpersonal act of sexual intercourse. The couple must find a physician or clinic willing to agree to these special arrangements for the collection and reinsertion of sperm.

We note that Tonti-Filippini's proposal falls into the category of "theological opinion" and has not officially been either approved or disapproved by the magisterium.

Finally, for men suffering from infertility after cancer treatment, the American Cancer Society lists artificial insemination with donor sperm or adoption as options for having children. (21) The use of donor sperm is not morally permissible; see *Handbook section 2.2 Artificial Insemination by Donor*. On the other hand, the option of adoption is morally unproblematic.

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Notes

1. American Cancer Society, *How Cancer Treatments Can Affect Fertility in Men*. <http://www.cancer.org/acs/groups/cid/documents/webcontent/acspc-041228-pdf.pdf>. Accessed 2017.

2. *Ibid.*

3. *Ibid.*

4. *Ibid.*

5. *Ibid.*

6. *Ibid.*

7. *Ibid.*

8. American Cancer Society, *Preserving Fertility in Men with Cancer*. <http://www.cancer.org/acs/groups/cid/documents/webcontent/acspc-041228-pdf.pdf>. Accessed 2017.

9. *Ibid.* “With IVF, after eggs are retrieved from the woman, each is cleaned and placed in a sterile dish with several thousand sperm. The goal is for one of the sperm to then fertilize the egg. This often works well when the sperm cells have good motility (swimming power). After freezing and thawing, however, motility can sometimes be low. Currently, it is more common to inject a sperm into each egg, getting around that problem and increasing the odds of successful fertilization. This procedure is called IVF-ICSI, which stands for in vitro fertilization with intracytoplasmic sperm injection.” *Ibid.*

10. Congregation for the Doctrine of the Faith, *Instruction on Respect for Human Life in its Origin and On the Dignity of Procreation (Donum Vitae)*, II.B.6. 1987. Available at <http://w2.vatican.va> > English > Roman Curia > Congregations > Doctrine of the Faith > Documents. Accessed 2018. Also quoted in Congregation for the Doctrine of the Faith, *Instructions Dignitas Personae On Certain Bioethical Questions*, no. 12. 2008. Available at <http://w2.vatican.va> > English > Roman Curia > Congregations > Doctrine of the Faith > Documents. Accessed 2018. See also *Handbook section 2.1 Artificial Insemination by Husband (AIH)*.

11. Nicholas Tonti-Filippini, “Donum Vitae’ and Gamete Intra-Fallopian Transfer,” *Linacre Quarterly* 57/2 (May 1990): 68-79 at 77.

12. Msgr. Orville N. Griesse, *Catholic Identity in Health Care: Principles and Practice* (Braintree, MA: The Pope John Center, 1987), pp. 52-3; Rev. Donald G. McCarthy, “TOTS is for Kids,” *Ethics and Medics* 13/12 (Dec. 1988): 1-2 at 1.

13. American Cancer Society, *Preserving Fertility in Men with Cancer*.

14. In the procedure of *percutaneous epididymal sperm aspiration* “a needle is inserted through the scrotal skin and into the epididymis (the coiled tubes that sit on top of the testicle)” and then “suction is applied to the needle, and sperm are aspirated out through the needle.” American Cancer Society, *Preserving Fertility in Men with Cancer*.

15. In the procedure of *microsurgical epididymal sperm aspiration (MESA)*, “a small incision is made in the scrotal skin, and an operating microscope is used to remove sperm from the epididymis under microscopic vision.” American Cancer Society, *Preserving Fertility in Men with Cancer*.

16. In the procedure of *testicular sperm extraction (TESE)*, “a small incision is made in the scrotal skin, and tiny pieces of testicular tissue are removed [and] inspected for sperm cells.” American Cancer Society, *Preserving Fertility in Men with Cancer*.

17. The *micro-TESE* procedure is similar to TESE, “except an operating microscope is used to inspect and help select the areas of testicular tissue that are removed.” American Cancer Society, *Preserving Fertility in Men with Cancer*.

18. “Sometimes the nerves that are needed to ejaculate semen or close the valve at the entrance to the bladder are damaged during cancer surgery or radiation treatment. When this happens, the male might still make semen, but it might not come out of his penis at orgasm. Instead, it might flow backward into his bladder (called **retrograde ejaculation**) ... Fertility specialists are often able to collect sperm from the urine of these males...” American Cancer Society, *Preserving Fertility in Men with Cancer*.

19. "...both the magisterium of the Church, in the course of a constant tradition, and the moral sense of the faithful have been in no doubt and have firmly maintained that masturbation is an intrinsically and gravely disordered action. The principal argument in support of this truth is that the deliberate use of the sexual faculty, for whatever reason, outside of marriage is essentially contrary to its purposes. For it lacks that sexual relationship demanded by the moral order and in which 'the total meaning of mutual self-giving and human procreation in the context of true love' is achieved. All deliberate sexual activity must therefore be referred to the married state." Congregation for the Doctrine of the Faith, *Declaration on Certain Problems of Sexual Ethics* (December 29, 1975), no. 9, reprinted in Kevin D. O'Rourke and Philip Boyle (eds.), *Medical Ethics Sources of Catholic Teachings* (St. Louis: Catholic Health Association, 1989), pp. 284-5.

20. See Griese, *Catholic Identity in Health Care: Principles and Practice*, pp. 45-7; Thomas O'Donnell, SJ, *Medicine and Christian Morality*, 2nd ed. (New York: Alba House, 1991), p. 238.

21. American Cancer Society, *Preserving Fertility in Men with Cancer*.