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Fertility Drugs: Are They Worth It?

Fertility drugs come into play when either a male or female is diagnosed as infertile. Infertility is defined as not being able to get pregnant after one year, or more, of trying to do so (Infertility Fact 1). As a result of this, many couples turn to fertility treatments to increase their chances of conceiving and giving birth to their own biological child. However, fertility drugs are not worth the money spent on them. The drugs have risks of cancer, premature labor, and other life threatening disorders or infections that can affect both mother and child.

To most popular belief, infertility is not only a woman's problem, but also a man's. One-third of infertility is caused by a woman's problem, another one-third by a man's, and an additional one-third is a combination of both (Infertility Fact 1). According to the Center of Disease Control and Prevention, 10% of females ages fifteen to forty-four are having difficulty getting or staying pregnant; that's about 6.1 million women just in the United States alone (Infertility Fact 1). The same website also states that 7.3 million women have tried using infertility services (Infertility Fact 1). In the United States in 2009, twenty percent of women are having their first child over the age of thirty-five (Infertility Fact 2). Older age is definitely a cause of most fertility problems because there are smaller amounts of eggs left in the ovaries, the eggs are not as healthy as they used to be, and there is more of a risk of miscarriages for women (Infertility Fact 2). The most common types of fertility drugs and treatments are clomiphene citrate, gonadotropin, and assisted reproductive technology (Infertility 5-6). Clomiphene citrate (clomid) is the most commonly used drug because it is so easy and convenient, as it's taken as a pill (McKesson 1). Gonadotropins are taken in the form of a shot, and a lot of more costly than clomiphene. It is a lot harder to use, and must be careful because if it's not taken correctly, it can over-stimulate the ovaries (McKesson 1). ART is different methods of fertilization, but the eggs are removed and mixed with sperm to create embryos, then placed back in the woman's body

(Infertility Fact 6). In vitro fertilization (IVF) is the most effective kind of ART in the modern day. Drugs are given to produce multiple eggs, then they are removed, put into a lab with the sperm, then implanted back into the woman's body (Infertility Fact 7). In 2006, CDC reported that these percentages led to a live birth through IVF: 39% of women under 35, 30% of women 35-37, 21% of women 37-40, and 11% of women 41-42 (Infertility Fact 7).

Scientists have done studies, and have come up with the conclusion that cancer is not directly linked to fertility treatments (Motluk 1). However, in a study that was done at the Hadassah-Hebrew University in Jerusalem by Ronit Calderon-Margalit, out of 567 Israeli women that took an ovulation-inducing drug, the risk was three times greater to develop uterine cancer. Out of the 362 women that took clomiphene, the risk was over four times greater (Motluk 1). Jodie Moffat, from Cancer Research in the United Kingdom, was quoted saying, "This study didn't include a detailed history of fertility drug use, and the number of women who developed uterine cancer was very small" (Motluk 1). Another study was done on Danish women from 1963-1998. The usage of chorionic gonadotrophins and clomiphene were tested (Biggs 1). There was almost no relation found between chorionic gonadotrophins and cancer, however, those who took clomiphene obtained a 67% greater risk for ovarian cancer, versus those who took others or no medications at all (Biggs 1). Of the 54,362 patients that were studied, there were 156 cases of ovarian cancer reported (Fertility Drugs 1). Although scientists say that infertile women are more at risk for cancers to begin with, still, the conclusion of this study was that fertility drugs do not raise the risk of ovarian cancer (Biggs 1). Louise Brinton, from the National Cancer Institute's hormonal and reproductive epidemiology branch had said that "she was surprised the authors played down the finding of an association between clomid and serous ovarian cancer" (Fertility Drugs 2). In another study taken place in Israel, out 3,375 women who had taken IVF treatments,

thirty-five showed breast carcinomas (Pappo 1). Of all the women who were treated with IVF, 85% had ER+ (estrogen receptor) tumors, while 29% of them had no cancerous background at all (Pappo 1).

Within the past couple decades, fertility treatments have been on the rise (Behrman 4). Because of fertility drugs and treatments, 33,000 women in the United States conceived and gave birth to children in 2002 (Behrman 4). As easy as it sounds, it's not always smooth-sailing. Premature births are a big risk to take when going through fertility treatments. Henriksen did a study with his colleagues, in which he found that women who took from 7-12 months to conceive a baby had an elevated risk of being 1.3 times more likely to give birth preterm. Women who took 12 months or longer had an even higher risk of being 1.6 times more likely (Behrman 4). Multiple gestations, or multiple births, are also a possibility when using fertility treatments (Behrman 6). When having multiple gestations, there is automatically an increased risk of complications, like low birth weight (McKesson 2). In the United States in 2002, 53% of infants born were part of multiple gestations because of assisted reproductive techniques and 40% of higher-order births, multiples of three or more, were the result of fertility treatments (Behrman 6).

The average gestation period for a typical pregnancy is thirty-seven weeks (Behrman 7). For twins, the average gestation is thirty-five weeks. 58% are delivered before full term and 12% are delivered before 32 weeks (Behrman 7). Higher-order multiple births are at an even greater risk. Triplets are more than 90% likely to be born preterm. 36% are born in less than 32 weeks (Behrman 7). *Infertility Treatments and Pregnancy Outcomes in Utah* by Baksh in 2009 put it in these words, "Multiple gestations are considered to be an undesirable outcome of infertility treatments and multifetal pregnancies are the major contributor to adverse pregnancy outcomes"

(Baksh 6). Even children that are not part of multiple gestations, but are still conceived by IVF, are twice as likely to be born premature, not live past one week of their birth, and the rate goes up by 2.7 times to have a low birth weight (Behrman 7).

Not only is there only a risk of premature birth from fertility treatments, there's also a risk of pregnancy loss, congenital malformations, placenta previa, preeclampsia, gestational diabetes, cesarean section, and perinatal mortality in mothers (Baksh 2). If the mother is having a multiple pregnancy, she is very likely to have high blood pressure, anemia, and gestational diabetes, which requires a delivery by cesarean, occur (Behrman 7). A mother is also putting her child in danger when she begins taking fertility drugs or treatments. Couples with either mother or father over the age of thirty-five have a 27% chance of having a child with autism (Arlane 1). Autism affects about 1% of all children in the United States, but with parents having children at a later age in life, and with the help of fertility treatments, that number is expected to increase (Arlane 1). Mothers are also overlooking the risk of their children having neurological problems because of the multiple births, low birth weight, and low gestational periods (Ludwig 1). Some studies show that children born from ART are similar to natural-born children, however, because of their low birth weight issues, it will, in turn, cause a negative effect in some part of the child's overall health (Ludwig 1). Children conceived from IVF born from 1996-1999 and monitored until 2003 were said to have more hospital visitations and even an increased risk for cerebral palsy and other developmental disorders (Klemetti 1).

Because of all the risk factors that go along with fertility drugs and treatments, it doesn't seem worth it to spend all of the thousands of dollars on it. The risk of cancer, premature births, and other disorders and infections are way too big of a hazard that anyone should want to take. Although every study for cancer linked to fertility treatments say they are not, the numbers are

still there. There is nothing that says one will not get cancer from the drugs or treatments. Why would someone risk getting cancer and not getting to see the child that they longed and worked so hard for grow up? It's not worth it.

Works Cited

- Asmar, Nadia, Chakib M. Ayoub, Ghina Berjawi, Yanli Chen, Bouthaina Dabaja, and Stephanie Fulton. *Fertility Drugs and the Risk of Breast Cancer: A Meta-Analysis and Review*. Rep. 2010. *Health Reference Center - Academic*. Web. 25 Feb. 2012.
<http://skynet.ccm.edu:2057/ps/retrieve.do?sgHitCountType=None&sort=DA-SORT&inPS=true&prodId=HRCA&userGroupName=ccmorris&tabID=T002&searchId=R7&resultListType=RESULT_LIST&contentSegment=&searchType=AdvancedSearchForm&startPosition=1&contentSet=GALE%7CA238474669&&docId=GALE|A238474669&docType=GALE&role=>>.
- Ayhan, A., MC Salman, P. Dursun, O. Ozyuncu, and M. Gultekin. "Association Between Fertility Drugs and Gynecologic Cancers, Breast Cancer, and Childhood Cancers." *National Center for Biotechnology Information*. U.S. National Library of Medicine, Dec. 2004. Web. 09 Mar. 2012.
<<http://www.ncbi.nlm.nih.gov/pubmed/15548140>>.
- Baksh, Laurie, Joanne McGarry, Lois Bloebaum, Joseph B. Stanford, and Sara E. Simonsen. "Infertility Treatments and Pregnancy Outcomes in Utah." *Utah.gov*. Utah Department of Health, Dec. 2009. Web. 25 Feb. 2012. <<http://health.utah.gov/mihp/pdf/Infertiliy.pdf>>.
- Behrman, RE, and AS Butler. "Medical and Pregnancy Conditions Associated with Preterm Birth." *National Center for Biotechnology Information*. U.S. National Library of Medicine, 2007. Web. 25 Feb. 2012. <<http://www.ncbi.nlm.nih.gov/books/NBK11363/>>.
- Biggs, Wendy S. "Fertility Drugs Are Not Associated with Ovarian Cancer." *Journal Watch Women's Health* (2009). *Health Reference Center - Academic*. Web. 25 Feb. 2012.
<http://skynet.ccm.edu:2057/ps/retrieve.do?sgHitCountType=None&sort=DA-SORT&inPS=true&prodId=HRCA&userGroupName=ccmorris&tabID=T002&searchId=R7&resultListType=RESULT_LIST&contentSegment=&searchType=AdvancedSearchForm&startPosition=1&contentSet=GALE%7CA238474669&&docId=GALE|A238474669&docType=GALE&role=>>.

[SORT&inPS=true&prodId=HRCA&userGroupName=ccmorris&tabID=T002&searchId=R4&resultListType=RESULT_LIST&contentSegment=&searchType=AdvancedSearchForm&tPosition=1&contentSet=GALE%7CA230586620&&docId=GALE|A230586620&docType=GALE&role=>](http://skynet.ccm.edu:2119/servlet/HWRC/updlist?docNum=A258911601&CH=ref_A258911601&tcit=1_1_0_0_1_1&index=BA&locID=ccmorris&rlt=1&origSearch=true&t=RK&s=1&r=d&secondary=false&o=&n=10&l=d&searchTerm=2NTA&c=1&basicSearchOption=KE&bucket=ref&SU=fertility+drugs).

"Fertility Drugs." *Health and Wellness Resource Center*. Gale, May 2011. Web. 25 Feb. 2012.

http://skynet.ccm.edu:2119/servlet/HWRC/updlist?docNum=A258911601&CH=ref_A258911601&tcit=1_1_0_0_1_1&index=BA&locID=ccmorris&rlt=1&origSearch=true&t=RK&s=1&r=d&secondary=false&o=&n=10&l=d&searchTerm=2NTA&c=1&basicSearchOption=KE&bucket=ref&SU=fertility+drugs>.

"Fertility Drugs: No Strong Association with Ovarian Cancer." *Health Reference Center - Academic*. Gale, 21 Feb. 2009. Web. 25 Feb. 2012.

http://skynet.ccm.edu:2057/ps/retrieve.do?sgHitCountType=None&sort=DA-SORT&inPS=true&prodId=HRCA&userGroupName=ccmorris&tabID=T002&searchId=R8&resultListType=RESULT_LIST&contentSegment=&searchType=AdvancedSearchForm&tPosition=1&contentSet=GALE%7CA219144075&&docId=GALE|A219144075&docType=GALE&role=>.

"Fertility Drugs and Ovarian Cancer Not Linked, Study Says." *Health and Wellness Resource Center*. Gale, 10 Feb. 2009. Web. 25 Feb. 2012.

http://skynet.ccm.edu:2119/servlet/HWRC/hits?docNum=A224102118&index=BA&tcit=0_1_0_0_0_1&locID=ccmorris&rlt=2&origSearch=true&t=RK&s=1&r=d&items=0&secondary=false&o=&n=10&l=d&sgPhrase=false&searchTerm=2NTA&c=5&bucket=peer&SU=fertility+drugs+cancer>.

"Infertility." *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, 02 Apr. 2009. Web. 25 Feb. 2012.

<<http://www.cdc.gov/nchs/fastats/fertile.htm>>.

"Infertility Fact Sheet." *Womenshealth.gov*. U.S. Department of Health & Human Services, 01 July 2009. Web. 25 Feb. 2012. <<http://www.womenshealth.gov/publications/our-publications/fact-sheet/infertility.cfm>>.

"Is There a Link Between Ovulation Induction and Cancer?" *Health and Wellness Resource Center*. Gale, May 2005. Web. 25 Feb. 2012.

<http://skynet.ccm.edu:2119/servlet/HWRC/hits?docNum=A132867675&tcit=0_1_0_0_0_1&index=BA&locID=ccmorris&rlt=2&origSearch=true&t=RK&s=1&r=d&items=0&secondary=false&o=&n=10&l=d&sgPhrase=false&searchTerm=2NTA&c=9&bucket=per&SU=fertility+drugs+cancer>.

Klemetti, R., T. Sevon, M. Gissler, and E. Hemminki. "Health of Children Born as a Result of In Vitro Fertilization." *National Center for Biotechnology Information*. U.S. National Library of Medicine, Nov. 2006. Web. 09 Mar. 2012.

<<http://www.ncbi.nlm.nih.gov/pubmed/17079550>>.

Ludwig, AK, AG Sutcliffe, K. Diedrich, and M. Ludwig. "Post-Neonatal Health and Development of Children Born After Assisted Reproduction: A Systematic Review of Controlled Studies." *National Center for Biotechnology Information*. U.S. National Library of Medicine, 18 Apr. 2006. Web. 09 Mar. 2012.

<<http://www.ncbi.nlm.nih.gov/pubmed/16621225>>.

Macfarlane, Jo. "An Older Mum or Dad Increases Autism Risk." *LexisNexis Academic*.

LexisNexis, 5 Feb. 2012. Web. 25 Feb. 2012.

<<http://skynet.ccm.edu:2051/hottopics/lnacademic/?>>.

Motluk, Alison. "Fresh Doubts Raised Over Fertility Drugs." *New Scientist*: 14. *Health*

Reference Center - Academic. Web. 25 Feb. 2012.

<http://skynet.ccm.edu:2057/ps/retrieve.do?sgHitCountType=None&sort=DA-ASC-SORT&inPS=true&prodId=HRCA&userGroupName=ccmorris&tabID=T002&searchId=R6&resultListType=RESULT_LIST&contentSegment=&searchType=BasicSearchForm&rtPosition=1&contentSet=GALE%7CA191645863&&docId=GALE|A191645863&docType=GALE&role=>>.

Pappo, I., L. Lerner-Geva, A. Halevy, L. Olmer, S. Friedler, A. Raziel, M. Schachter, and R.

Ron-El. "The Possible Association between IVF and Breast Cancer

Incidence." *Mcc.cancer.gov*. Middle East Cancer Consortium, 23 Jan. 2008. Web. 25 Feb.

2012. <http://mecc.cancer.gov/16.Pappo_2008.pdf>.