

The Health Risks of Egg Extraction
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Thank you for inviting me to represent my organization at this forum. Building on the presentations of my colleagues, who have discussed many of the ethical, political, and moral concerns surrounding the practice of egg extraction, I will focus on the health risks to women associated with the egg extraction process, especially what we don't know about the health risks and safety of the procedure. Many people are under the misimpression that there are no significant risks to egg extraction because it is practiced so widely—in several hundred IVF clinics across the United States and hundreds more across the globe. But widespread practice of any procedure or widespread use of any drug does not necessarily tell us very much about the health and safety issues at stake.

I work for an organization called Our Bodies Ourselves, also known as the Boston Women's Health Book Collective, which is based in the United States in the city of Boston. We are a nonprofit public interest women's health education, advocacy, and consulting organization, best known for the book "Our Bodies, Ourselves," which is often called "the bible of women's health." This book has been updated 8 times since 1970 (the most recent being in 2005), and has been translated into more than 20 different languages. We also maintain a website that provides free information on women's health, as well as links and resources to trustworthy organizations and sources of information. Most recently, we started producing single topic books on women's health, including a book about pregnancy and childbirth, which will be released next fall, and one on menopause, which will be released in less than 2 weeks. Our mission is to empower women by providing them with up-to-date, accurate health information that they can use to make the best health choices for themselves.

This being said, there is currently very little good-quality information about egg extraction to aid women in making informed choices. I will start with what we do know, and then touch upon the many unanswered questions that have the potential to hurt and exploit the health of women.

Typically, the egg extraction procedure itself begins with daily hormone injections, which the woman usually administers herself.

I should also mention here that it is possible to avoid the use of hormones by monitoring a woman's cycle and extracting only the single egg that a woman usually produces each month. However, this approach is rarely used because it obviously does not produce near as many eggs, and in general, many are needed to maximize the possibility for fertilization and creation of a viable embryo.

Most procedures to obtain eggs begin with drugs that shut down the woman's ovaries to ensure that no eggs are released prematurely. Commonly used drugs for this include Lupron (which is used to treat prostate cancer in men and endometriosis in women). Use of Lupron for ovarian suppression as part of egg extraction procedures is "off-label" use, meaning that the United States Food and Drug Administration has not approved this specific use of the drug. "Off-label" use is not necessarily unsafe, but we need to recognize that in these instances there has been no thorough review of the medical literature by the FDA.

I want to pause here and discuss the health risks of these injections. Aside from the usual injection risks of skin irritation or infection at the injection site, the injected drugs each carry the risk of potentially dangerous side effects. For example, Lupron, a drug commonly used to suppress ovulation at the beginning of the egg retrieval procedure, carries side effects such as depression, rashes, chest pain, nausea, hypertension, vertigo, thyroid abnormalities, difficulty breathing, burning sensations, vision problems, hair loss, headaches, dizziness, hot flashes, night sweats, muscle pain, joint pain, bone pain, abdominal pain, loss of libido, memory loss, insomnia, and so forth. Lupron has hurt so many women that a number of them banded together to create the "Lupron Victims Network" in order to share their experiences as well as strategies to cope with the symptoms.

One woman left a post saying:

I'm 22 years old and in September of 2000 I had my one and only shot of Lupron. I didn't know much about the drug and my doctor was very reluctant to tell me anything about it. He insisted I'd only suffer hot flashes. A few hours after receiving the shot I started to get dizzy and I blacked out. I had nausea, dizziness, insomnia, anxiety, forgetfulness, lactation, I thought I was going off the deep-end.

Another woman writes:

Last month I ended up with a headache that lasted 15-16 days, muscle aches, I am so sore when I get up in the mornings (stiff), I'm extremely irritable and I cry at the most unexpected times. I feel like I am on an emotional rollercoaster.

The United States Food and Drug Administration currently has more than 6,000 complaints on file regarding Lupron, including 25 reported deaths. But these complaints have not been investigated or analyzed sufficiently to be able to determine if the drug is directly responsible for many of these harms.

Let us continue describing the egg extraction process. After suppressing ovulation via hormones, the woman will begin daily injections of hormones that hyper-stimulate her ovaries to produce over a dozen eggs at a time, and sometimes as many as 20 or 30, rather than the normal one or two. After about 10 days of this, she would then begin a round of injections that force the eggs to mature.

Most of the drugs used in the process carry the risk of ovarian hyperstimulation syndrome (OHSS). Mild forms of this include symptoms such as nausea, vomiting, diarrhea, and abdominal distention. About 10 to 20% of women undergoing the procedure experience these symptoms.

As one British woman described it in a Glasgow Herald article, "The drug treatment was horrible. You feel dreadful, very tired, aggressive."

About 3 to 8% may experience more severe forms of OHSS, in which ovaries can swell from their usual almond size to nearly the size of a grapefruit. Other serious symptoms include rapid weight gain, accumulation of fluid in the spaces between tissues and organs, kidney damage, ovarian twisting, clotting disorders, difficulty breathing. Severe life threatening conditions such as thromboembolism, renal failure, strokes, respiratory distress, and hemorrhaging from ovarian ruptures, or loss of limbs, and even death have also been reported at varying rates. According to the American Society of Reproductive Medicine, severe forms of OHSS that require hospitalization are "by no means rare." As of June 2005, the deaths of at least 5 women in the UK have been attributed to OHSS.

One UK woman who suffered a stroke as a complication of severe OHSS. Here are her own words, as quoted by "The Scotsman" in June of 2005:

Then stroke. Disaster. Now my face fine but my body will never be the same... One year hospital and now wheelchair. Why me? Still bubbly, but inside my body and brain cry, cry, cry.

After the drug injections, the woman must undergo minor surgery to have her eggs extracted. This typically involves antibiotics, anesthesia, and an ultrasound-guided needle that pierces the vaginal wall and aspirates, or sucks out the eggs. The needle will pop each follicle (again, there can be up to 20 or 30, as opposed to the normal one) to remove the fluid containing the eggs. This procedure can be painful, even with anesthesia. After the operation, many women experience pelvic soreness and fatigue.

On an online support site, one woman posted:

I had my retrieval this past Monday. The procedure itself was not painful at all. It was afterwards that was painful... I was in so much pain all week I could hardly even stand up straight

The husband of another woman posted his observations:

Throughout the procedure she had very intense pain every time the needle was repositioned. Sometimes she appeared to be almost asleep before being racked with pain shooting through her. The staff were concerned but didn't seem to think it was abnormal... As soon as Sue was moved to recovery she began being hit with very painful attacks every 10 minutes despite being given powerful drugs to control the pain. The attacks would

last two minutes. The staff were convinced there was nothing wrong... the attacks continued...for another three hours

These short-term risks we know a fair amount about. The long term risks associated with egg extraction are much more of a question, as there has not been adequate follow-up studies of women undergoing multiple egg extraction (especially since many women undergo multiple cycles of the procedure), especially with respect to the use of Lupron and Antagon. As Dr. Suzanne Parisian, former Chief Medical Officer of the United States Food and Drug Administration put it, “Pharmaceutical companies have not been required by either the government or physicians to collect safety data for IVF drugs regarding risk of cancer or other serious health conditions despite the drugs having been available in the United States for several decades.”

Even though we do not know the exact long-term risks, there is good reason to believe that they exist. Some clinical reports have associated infertility treatment with an increased risk of ovarian cancer, but thus far, data is inconclusive. Two major studies suggest an association between ovarian stimulation and ovarian cancer. Yet another study has found a possible association between clomiphene citrate, which is another ovary stimulating drug, and ovarian tumors and uterine cancer. Supplemental progestogens, which are often used for most IVF procedures, have also been associated with an increase in breast cancer. And there is much we do not know about the interactions of these drugs and hormones, when they are used in combination.

In addition to clinical reports, there have been hundreds, if not thousands of anecdotal reports that indicate that many of the complications are long term. The Boston Herald ran a three-part story on women who had taken Lupron for the egg extraction procedure. According to the article, “Seven of the women interviewed for this story say they suffered memory loss and bone aches while on Lupron, and that the problems continue years after stopping the drug. Some say seizures and serious vision problems that started while on Lupron still haven’t gone away.”

At online support groups for Lupron victims, one woman left a post saying:

I have had pain in my bones for the last year or so but nothing like I am experiencing as of late... I woke up today and could not move my elbow it was in so much pain. This type of pain is VERY new to me cuz I can't work on a regular basis, or sleep on a regular basis. I am very scared at the moment...I just feel like most of you that this drug has taken my life.

Another woman writes:

I am post Lupron for 10 years. Yes, 10 Years! Worst mistake of my life at 30 to take Lupron for 9 months. Have lost 10 years. Muscle and bone pain everywhere every minute of each day. Has not gotten much better with time.

One report submitted to the FDA in 1998 stated that researchers were “concerned” because more than one-third of the women they studied who took Lupron did not “demonstrate either partial reversibility” or “a trend towards return” of bone mass in the six months after they stopped taking the drug. Incidentally, some women lost as much as 7.3% of their bone density during the treatment—which is more than twice the amount advertised by the drug’s packaging list. These researchers concluded, “A more complete assessment of the effects of Lupron on [bone density] can only be made with longer term follow-up of these patients.” These follow-ups have yet to be performed.

With all these reported links between egg extraction and long-term chronic and life-threatening conditions, studies are desperately needed to discover the real risk to women undergoing this procedure. Only after such studies are run can women be truly informed enough to decide whether they should risk these adverse health effects.

Although my organization is primarily concerned with the health risks to women, we must also consider the risks to the children of the women undergoing the procedure. Again, studies and data are desperately needed. Although mouse studies are a poor replacement for human data, I should mention that studies on ovarian stimulation treatment in mice resulted in some concerning outcomes for their offspring, including growth retardation, delay in bone development, and rib deformities. Again, mouse studies sometimes yield very different results when put into clinical human trials, but they at least suggest that such treatments should proceed with caution until further studies can be done.

Of course, it should also be mentioned that all these potential harms must always be weighed against the potential benefits. A woman who undergoes the procedure and the fertility drugs in an attempt to produce a child faces the same risks as a woman extracting her eggs to be used in scientific research. It goes without saying that the risk-benefit is vastly different for these two circumstances. In the context of attempting to produce a baby, a woman has a 10 to 40% chance of producing a baby either for herself or another person. On the other hand, in the research context (for somatic cell nuclear transfer, for example), the benefits are still quite uncertain. Chances are good that a woman donating her eggs for research will probably never see herself or a loved one benefiting from that research for decades to come. Although many researchers are cautiously hopeful, and there are a few specific ways that somatic cell nuclear transfer can help scientists understand better the progression of certain diseases and conditions, we do not believe that egg extraction solely for research purposes is justifiable at this time.

With all these unknowns and unanswered questions regarding the long-term effects of egg extraction procedures, I want to mention that this is not the first time that women have been exposed to heavy doses of hormones without first knowing about the potential long-term health risks. In 1947, many women were prescribed DES to prevent miscarriage or premature birth. Then in 1971, a study

found an alarming occurrence of vaginal cancer in the daughters born to these women who had used DES. Many of these cancers proved fatal. Furthermore, problems such as infertility could plague both male and female offspring into a third generation. An estimated five to ten million women worldwide were exposed to this drug before we discovered the dangers.

In another more recent example, during the past decade or so, major clinical trials have provided evidence of an increased risk of breast cancer, stroke, heart attack, and blood clots associated with “hormone replacement therapy,” which has been marketed for decades to menopausal women. These past lessons on the risks of widespread hormone treatments before the long-term effects are understood suggest that we should proceed with caution. As it stands, there’s a gaping hole in our knowledge of the health risks associated with egg extraction. I hope that all of us at this forum can work together can make sure that women are not harmed or exploited in an attempt to fill this gap.

I want to thank you for the opportunity to present at this forum. For more information on any of the health information I’ve mentioned, I would recommend taking a look at the website for my organization, www.ourbodiesourselves.org, which contains free information and resources on many women’s health issues. Our most recent edition of the book *Our Bodies, Ourselves* is also a good resource for finding out more about the politics and ethics surrounding a number of feminist and women’s health topics. I’d also like to remind you about our book being published next month, *Our Bodies, Ourselves: Menopause*, which details issues such as the hormone treatment debate.