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# Why Are There Sex Hormones in the Water?

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**Anthony G. Jay**, *Estrogeneration: How Estrogens Are Making You Fat, Sick, and Infertile* (Tallahassee, FL: Pyramidine Publishing, 2017).

The motto of the publisher of Anthony G. Jay's book, *Estrogeneration: How Estrogens are Making You Fat, Sick, and Infertile* is: "We put the 'fun' in "functional." For this reader, these words are possibly misplaced, for the heavily documented message of this book is far from fun. The light tone used by the author, including in the account of significant events in his own life—such as fishing expeditions, courtship and marriage to his wife—belie the life-threatening nature of his conclusions.

Perhaps our society is not ready for the message that various estrogen products, not least the artificial estrogens used in hormonal birth control, are not filtered from the water we drink. Like secondhand smoke, they contribute to obesity, depression, cancer and infertility for all of us, not only in this generation, but in generations to come. This is not to say that Jay, who is currently a researcher with the Mayo Clinic, does not pull his punches. In the introduction, he says "estrogenics"—i.e., artificial versions of estrogens which are the female sex hormones—"are a clear and present danger and estrogenics relate to *most of our modern health epidemics.*" Elsewhere he notes that "the problem is immense." Still, the catchy presentation may have the effect of minimizing the seriousness of the threat.

The first part of the book is called "Indecent Exposures." Here we get a sense of the author's methodology. First, he gives what he calls the "IRS 10 list" or the "Ill Reproductive System List." This list includes "something scientists call 'male feminization.'" Part Two treats of the rising disease in which estrogenics are implicated. In Part Three he considers how estrogenics "pass on" infertility, obesity and cancer to the next generation.

Estrogenics bind or stick to estrogen receptors situated throughout the body. When an estrogen, a steroid hormone, enters the bloodstream the estrogen receptor cells will change. Jay's book does not give an exhaustive list of external sources of estrogen, but singles out weed killers, soap, fragrances, sunscreen, soy, red food coloring and plastics. Some of these substances contain natural estrogens, others artificial. Among the most egregious of estrogens is EE2, the artificial estrogen of the birth control pill. While all the other estrogens can be damaging, one of the problems with EE2 is that it "was intentionally designed to . . . activate the estrogen receptor and stay in the body longer than natural estrogen." As to the gravity of the influence of EE2, Jay notes that 100 million women worldwide use the birth control pill. While many are single, it is worth pointing out that a staggering 60% of married

women use the birth control pill.

The issue arises as to how leading institutions in our society can endorse products that are so harmful. Here the author digresses to consider the influence of the funding for scientific research, which, at academic institutions, comes mostly from the U.S. government or large corporations. “Begging for money is literally a 40-hour week for most scientists,” he charges. It is all about money, says Jay: “No money equals no research. And money is the elephant in the estrogenic room because selling estrogens generates massive profits.” According to Jay, corporations and government are not solely to blame. Since consumers demand the products like EE2 or products made of soy, the “best” corporations merely provide what they want. Jay also delves into publication bias. Not only is there a climate of “publish or perish,” but the peer review process is far from neutral. Jay describes scientific publication as “a vast marketing machine,” because “everybody—and I mean everybody—has an agenda when writing scientific work.” He himself is wary of published articles that promote or favor estrogens. He also notes that scientific errors are increasing, since many studies cannot be repeated, which calls into question the original research. Nevertheless, Jay does look at numerous studies on estrogens, albeit with the above caveats.

He goes on to list seven major health problems that can be traced back to the presence of estrogens, particularly in the water. This is important, he says, “because the health of your family. . . is on the line,” especially with the continual rise of estrogenic usage over the past 20 years. The first negative effect listed is obesity, since estrogen loves to hide out in the fat cells of the body. Throughout this section Jay uses the term “man boobs.” Secondly, Jay points out that “there is a strong connection between estrogens and depression.” Thousands of studies have been done linking obesity with depression, arising from hormonal imbalance, not just from body image. For example, Indian suicide rates have been skyrocketing, especially among farmers. Jay questions if that may not be due to the massive use of chemical sprays on crops. Other estrogens have also been linked to depression, such as phthalates and BPA, natural estrogens used in plastics and, of course, there is a strong link between birth control usage and depression.

Next on the list is what Jay calls the Estrogenic Sexual Assault, the first of which is “Low T”—that is, testosterone. Both estrogen and testosterone are steroid hormones built from cholesterol in the body. For thousands of years, he says, human T levels have been declining so that facial shape has changed, resulting in a more “feminine skull.” However, there has been a massive drop in testosterone levels in recent history, which coincides with the increased use of estrogens. For example, the T levels of a middle-aged male in the 1940s was double of the T levels of today’s male. As for women, low T levels decrease sexual desire. Another surprising result: the study found a significant drop of T levels in boys and men from drinking whole milk which contains cow estrogen. Sperm counts have also dropped more than 50 percent in the past 50 years.

The next negative effect may be implicated in society’s transgender challenges (this is the reviewer’s suggestion, not Jay’s). Scientists refer, on a regular basis, to the “feminization of males.” Estrogen exposure negatively affects both men and women. Puberty in girls is occurring at younger and younger ages with premature breast development. Jay ascribes the decline in college admissions of men mainly to estrogenic exposure: “In 1950 about 70 percent of undergraduate students were male. By 1970 this number was about 60 percent. Next by 1980 undergraduates were equally men and women. By 2006 undergraduates were very nearly 40 percent male and 60 percent female.” More boys today, he thinks, are apathetic due to changes in the brain as a result of estrogens. “To put it frankly, we males today are being ‘feminized’ via estrogens, especially in developed countries.” He concludes that the changes are especially noticeable in children and that their behavior is affected for life.

Other negative effect of estrogens are well known: cancer and blood clots. “Together with breast cancer. . . blood clots are generally the most common side effects of birth control.” The decrease in the risk of ovarian cancer, does not, according to Jay, offset the increased risk of breast cancer. Teenagers given oral contraception are particularly vulnerable to breast cancer.

Part Three of Jay’s book on Epigenetics is perhaps the most troubling part of all: it deals with future generations. “Epigenetics,” he says, “is the study of marks that are made to your DNA.” For example, reproductive infertility begins in the first generation, but is higher in the second. It can even reach to the third generation. Similarly, a disposition to obesity and cancer can be passed down to offspring. The estrogen used in the birth control pill, EE2, has also been implicated in lower sperm counts. Jay concludes: “To sum it up, fertility is clearly at risk where estrogenic burdens are high and where estrogenic burdens are sustained. My fertility is at risk and so is your fertility. So is your children’s fertility.”

The final chapter is devoted to what you can do to protect yourself. Jay calls this the most important chapter. Estrogenic effects do not happen suddenly. Rather like the frog that does not notice the heat of the water until it boils, the damage to the body is slow. He lists three prime strategies: (1) increase intake of fish oil, (2) learn natural family planning (“The World Health Organization [WHO] is even raising a skull and crossbones flag here by certifying certain EE2 oral contraception drugs as ‘Group 1 Carcinogens’”) and (3) reduce the estrogens already stored in the body’s fat cells, especially through heat treatments like the sauna. Before introducing his three avoidance plans, he recommends the use of an “Estrogen free” label on products. Next, he recommends scientists get involved by flagging, for example, “corporate bias within studies and funding.” He adds, “For scientists and physicians, it should go without saying that promoting estrogenic products under the ruse of ‘science’ needs to stop.” A frequent practice that comes to mind here is advising patients that birth control pills reduce acne. Teenagers, he warns, should not be taking EE2, period.

Jay then proposes three avoidance plans: gold, silver and bronze. In the gold plan, there are 36 items to avoid, among them plastic toys, foods canned in metal, all lavender products, oral contraception (here again we find a plug for natural family planning), all soy products and red food dyes. The silver and bronze plans are still formidable, though less comprehensive. Personally, I would find using all these avoidance strategies a challenge, although I already avoid processed foods and buy organic whenever possible. As a result of reading the book, I now use paper instead of plastic to heat food in the microwave, and try to avoid more of the products that Jay highlights. To be effective, Jay’s proposed strategies would have to become a way of life. Our society has done much to reduce the negative effects of plastic but, it seems, for the most part, the birth control pill is off limits. Those who adopt natural family planning find many benefits to their marriage from monitoring their fertility, so that it truly becomes a “way of life” and at the same time, protects the health of children and grandchildren. Fortunately, NFP has been part of our married life and, as a scientist specializing in his retirement years in infrared detection of breast cancer, my husband was well aware of the carcinogenic effect of birth control pills.

Everyone should be aware of the estrogenic dangers the book describes. Anthony G. Jay has done us a real service in exposing them.

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