

**If It Is Not OK for Him to Take Steroids,
Why Is It OK for her?**

The dangerous performance enhancing steroids taken by athletes are male steroid hormonal drugs that build muscle. One of their risks is liver cancer.

Similarly, female steroid hormonal drugs build breast tissue. They not only increase the risk of liver cancer but breast and cervical cancers as well.

These powerful steroid drugs are taken by millions of teenage girls as BIRTH CONTROL PILLS.

Why are teenage girls vulnerable to the cancer-causing effects of birth control pills?

Teenagers are especially vulnerable to breast cancer risk because their breasts are growing and most have not yet developed cancer-resistant Type 3 lobules through a full-term pregnancy. Therefore, the cancer-causing combination contraceptive steroids (birth control pills) are especially dangerous for them.

How do steroid hormones affect breast development?

Breast tissue is made of lobules. A lobule is a unit of breast tissue that contains a milk duct and some milk producing glands.

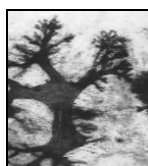
There are four types of lobules:

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| Type 1 | Develop during puberty when estrogen levels rise and breasts develop |
| Type 2 | Some form during puberty |
| Type 3 | Form during pregnancy after 32 weeks |
| Type 4 | Actively produce milk |

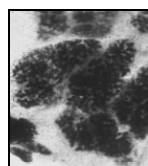
Before a full-term pregnancy, most of the breast is composed of Type 1 & 2 lobules, with Type 1 comprising 70% of the breast tissue. Together Type 1 & 2 lobules are where 95% of all breast cancers start.

Therefore, steroid hormones are most damaging to the breast if taken before a full-term pregnancy.

Photomicrographs of Lobules



Type 1 Lobules



Type 3 Lobules

After a full-term pregnancy, most of the breast is composed of Type 3 lobules which are fully mature and resistant to cancer. This is why a full-term pregnancy lowers breast cancer risk and why women who remain childless have a higher risk of breast cancer.

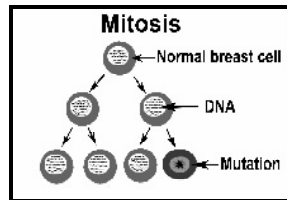
How do steroid hormones and hormonal drugs increase breast cancer risk?

Both alone and in combination, the powerful steroids estrogen and progesterone and their synthetic equivalents (estrogen derivatives and progestins) can cause breast cancer through these two mechanisms:

1. They cause the breast tissue to grow which can result in mutations and ultimately cancers.
2. Estrogens can act as direct carcinogens causing cancer cells to form.

1. Breast tissue growth resulting in mutations and cancers

Every cell contains a complete set of genes composed of DNA in its nucleus. The combination of estrogen and progesterone steroids cause breast cells to multiply by first copying their DNA followed by cell division—this is called mitosis. While copying DNA during mitosis, mistakes can occur which are called mutations. Mitosis of mutated cells multiplies these mutations. Cancer results from accumulated mutations in a cell causing uncontrolled growth.



2. Direct carcinogenic effect of estrogen steroids

There are breakdown products of estrogen (metabolites) which can directly damage DNA, causing mutations and cancers to form. One such metabolite is 4OH catechol estrogen quinone, which is found in higher levels in women with breast cancer than those without cancer.

To be effective, high doses of contraceptive drugs must be given to suppress ovulation (the release of an egg) by mimicking pregnancy. They must also resist biodegradation so that one pill a day is effective. In a normal non-pregnant state, the levels of natural steroids are lower and present for shorter durations than experienced while using synthetic steroidal oral contraceptives. These are potent medications which should be used carefully and judiciously; for example, short-term needs or serious medical illnesses caused by hormonal imbalances.

What is the medical evidence for the link between birth control pills and breast cancer?

In June of 2005, 21 scientists of the World Health Organization's International Agency for Research on Cancer met in France. This group thoroughly reviewed the entire world's medical literature concerning estrogen-progestagen containing drugs which are found in contraceptive steroids and hormone replacement therapy (HRT). **They concluded that these drugs caused breast, cervical and liver cancer.**¹

On January 19, 2006, the New England Journal of Medicine reported on the findings of two scientists from Johns Hopkins University which concluded that oral contraceptives increase breast cancer risk.²

In medical texts, birth control pills are acknowledged to increase a woman's risk of breast cancer while in use **and** for up to ten years after they are stopped.³ There is an approximate 20-30% increase in the risk of breast cancer in women who use these drugs.

Through public media coverage in 2002, women of this country were made aware of breast cancer risk from using HRT. As a result, millions of women stopped taking these drugs. **Although the same type of drugs found in HRT are also found in birth control pills in even higher doses, their breast cancer risk remains widely unknown by the public.**

Through their widespread use over the last 30 years, birth control pills and HRT are undoubtedly a significant reason breast cancer rates have increased 40% over that same period, especially in our young women.

But don't birth control pills lower the risk of ovarian and endometrial cancer?

Yes, they do decrease risk by suppressing ovulation and differentiating the uterine lining. However, according to the American Cancer Society, out of 100 women with cancer, 31 have breast cancer, 6 have endometrial cancer and only 3 have ovarian cancer, so it is not a good "trade-off" in risk.

What are some names of these synthetic steroids?

Some are ethinyl estradiol, conjugated estrogens, norgestrel, medroxyprogesterone, levonorgestrel, norethindrone, norethisterone, desogestrel, norgestimate, mestranol, drospirenone, and ethynodiol.

Many thousands of cases of breast cancer a year are attributable to these powerful steroid drugs. This is because millions of women take these drugs each year.

What about the new patch and vaginal ring?

They contain the same drugs found in birth control pills and increase breast cancer risk. The patch is especially dangerous as it raises estrogen blood levels 60% higher than the “the pill” and has resulted in strokes, venous clots and deaths.⁴

What about injectable birth control like Depo-provera and progestin-only pills?

The progestin only injection, Depo-provera, also increases breast cancer risk like the pill. There are no long-term safety studies available for the progestin-only “mini-pills” which have recently become available.

Does the morning after pill (emergency contraception) pose any breast cancer risk?

The morning after pill (MAP) contains a high dose of progestin. Some websites recommend taking multiple doses of birth control pills at once as a substitute for the MAP where it is not available. These medications may increase breast cancer risk if used regularly instead of infrequently for emergency use as intended.

Are there safe, effective alternative treatments for teenagers on birth control pills for different medical problems?

Yes, there are, as below:

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| Acne: | Use safe topicals and antibiotics |
| Menstrual cramps: | Use safe effective pain relieving drugs (e.g., Non-Steroidal Anti-Inflammatory Drugs) |
| Irregular periods: | After a girl’s first menstrual period, irregular periods are not abnormal for a time and reduce breast cancer risk later in life. ⁵ |

Are there safe, effective alternatives to oral contraceptives for family planning?

Yes, there are several natural family planning (NFP) methods. NFP methods teach women to reliably recognize their few fertile days a month. Studies all over the world have shown these methods to be at least as reliable as the pill even when a woman has irregular cycles and low education levels. It is cost free after initial instruction of the method chosen. The ovulation methods include the Ovulation Method of Natural Family Planning, the Creighton Model FertilityCare System⁶ and the Billings Ovulation Method. There is also the symptothermal method of the Couple to Couple League. (NFP is not the rhythm method.)

Why hasn’t the National Cancer Institute (NCI) warned the public of these documented cancer risks?

There may be multiple ethical, socioeconomic, political and cultural reasons why this information has not been made readily available to the general public.

In February of 2005, Dr. Elias A. Zerhouni, the director of the National Institutes of Health (NIH), which encompasses the NCI, banned all staff scientists from taking drug-company fees because he wanted “the NIH to be a source of health information that could be trusted.”⁷ Government scientists had moonlighting jobs and were receiving large fees and stock options from pharmaceutical companies, which is clearly an unethical conflict of interest.

More alarmingly, in 2005 the prestigious British journal Nature published a study which showed 15.5% of scientists with NIH grants anonymously admitted to “changing the design, methodology, or results of a study in response to pressure from a funding source,” which is a form of scientific misconduct.⁸

Former FDA director, David Kessler, wrote the book, “A Question of Intent: A Great American Battle with a Deadly Industry.” In it he describes how the tobacco industry, through its economic and political clout, successfully suppressed for decades the link between cigarettes and lung cancer using the NCI and medical groups such as the American Medical Association.

Like tobacco, contraceptive steroids (birth control pills) are very widely used, having been taken at some time by at least 75% of American women, often for many years. The belief in the use and the safety of “the pill” is deeply engrained in American culture and the culture of American health scientists, in both the government and the pharmaceutical industry.

Despite decades of studies demonstrating the health risks of birth control pills, the NCI has only very recently revised an oral contraceptive fact sheet on its website to reflect these studies.⁹

Why haven't cancer and medical organizations publicized the link between breast cancer and the pill?

These organizations take their lead from the NCI and other governmental agencies which at present have not widely publicized this information.

Resources for effective hormone-free family planning

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| Ovulation Method of Natural Family Planning | www.familyplanning.net |
| Creighton Model FertilityCare™ System (CrMS) | www.creightonmodel.com |
| Billings Ovulation Method | www.woomb.org |
| Couple to Couple League | www.ccli.org |

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