

HORMONAL CONTRACEPTIVES AND “EMERGENCY CONTRACEPTIVES”

Prevalence of Contraception

According to an August, 2013 report by the Alan Guttmacher Institute ¹:

- Virtually all women (99%+) aged 15-44 who have ever had sexual intercourse have used at least one contraceptive method among those listed below.
- Some 62% of all women aged 15-44 are currently using some method.
- 11% of women at risk of unintended pregnancy are not currently using any method.
- The remaining women of reproductive age do not need a method because they are infertile, are pregnant, postpartum, or trying to become pregnant, have never had intercourse, or are not sexually active.

The same report lists the following contraceptive methods used by American women:

<u>Method</u>	<u>% of Users</u>	<u>Failure Rate</u> (Typical User)*
Pill	27.5	8.7
Tubal sterilization	26.6	0.7
Male condom	16.5	17.4
Vasectomy	10.0	0.2
IUD	5.6	0.5**
Withdrawal	5.2	18.4
3 month injectable	3.2	6.7
Vaginal ring	2.2	na
Implant/patch	1.2	1.8
Periodic abstinence	1.1***	25.3
Other	0.5	na

* Failure rate is from Planned Parenthood’s 2010 report.

** Combined average of Copper T and Mirena.

*** Combined average of Calendar method and NFP.

na not available

Note: The above failure rates differ by demographic group. For example, poor, cohabiting teenagers using the Pill have a failure rate of 48.8%.²

HORMONAL CONTRACEPTIVES

What are they?

Hormonal contraceptives were first available in pill form in 1960. They may now be taken by mouth (“The Pill”), implanted into body tissue (“The Rod”), absorbed through the skin (“The Patch”), injected under the skin (Depo-Provera), dispensed from an intrauterine device (Mirena), or placed inside the vagina (NuvaRing).

Oral Contraceptives

As the table above indicates, the pill, or oral contraceptives (OCs) are the most commonly used. According to the National Cancer Institute³: “Currently, two types of OCs are available in the United States. The most commonly prescribed OC contains two man-made versions of natural female hormones (estrogen and progesterone) that are similar to the hormones the ovaries normally produce. This type of pill is often called a

'combined oral contraceptive.' The second type of OC ... is called the minipill. It contains only a synthetic type of progesterone," called progestin or progestogen.

"Estrogen stimulates the growth and development of the uterus at puberty, causes the endometrium (the inner lining of the uterus) to thicken during the first half of the menstrual cycle, and influences breast tissue throughout life, but particularly from puberty to menopause."

"Progesterone, which is produced during the last half of the menstrual cycle, prepares the endometrium to receive the egg. If the egg is fertilized, progesterone secretion continues, preventing release of additional eggs from the ovaries. For this reason, progesterone is called the 'pregnancy supporting' hormone...' since it provides a nutrient-rich endometrium for the developing human being to implant."

How do hormonal contraceptives work?

In 2008, the Practice Committee of the American Society for Reproductive Medicine noted that in the wide variety of oral contraceptives available their "mechanisms of action are the same." They either 1) inhibit ovulation (so no egg is released), 2) alter the cervical mucus (so that it is more difficult for the sperm to reach the egg), 3) and/or modify the endometrium, thus preventing implantation.⁴

It is to be noted that the last "mechanism of action" constitutes an abortion, since the developing human being already consists of some 100 cells, but cannot implant in the mother's womb. For many decades, science recognized the fact that the life of an individual human being begins at fertilization (conception) when sperm joins egg, and that the mother was pregnant at that point. However, in 1959, Dr. Bent Boving suggested that pregnancy or conception should be understood as commencing at implantation, rather than at fertilization. Perhaps influenced by a concern about overpopulation, Boving stated, "the social advantage of being considered to prevent conception rather than to destroy an established pregnancy could depend on something so simple as a prudent habit of speech."⁵

Adopting Boving's suggestion, in 1965 the American College of Obstetricians and Gynecologists (ACOG) defined conception as the "implantation of a fertilized ovum." In 1972, recognizing that by the time of implantation, the developing human being consists of some 100 cells, and is technically called a blastocyst, they changed the definition to "Conception is the implantation of the blastocyst."

As a result of this new definition, drugs and devices which may prevent implantation are now called "contraceptives," or "emergency contraceptives" although their action is sometimes abortifacient.

There are no scientific studies that have firmly determined the relative frequency with which these three mechanisms, (or some combination of them) occur. Hence, we do not know how many abortions can be attributed to hormonal contraceptive use. One finding suggests that with the use of combined birth control pills (estrogen and progesterone), fertilization occurs, but implantation fails in from 1.7% to 28.6% of the time per cycle, whereas with progestin-only pills (that thin the endometrium) fertilization rates are from 33% to 65% per cycle.⁶

What Are the Side Effects of Hormonal Contraceptive Use?

Relationship to Cancer:

National Cancer Institute: "The risk of endometrial and ovarian cancers is reduced with the use of OCs [oral contraceptives] while the risk of breast and cervical cancer is increased."³ An increased risk of liver cancer is also associated with OC use.⁷ According to the U.S. Centers for Disease Control and Prevention, from 2004-2008, 2.3 times as many women died from breast, cervical and liver cancer as died from endometrial and ovarian cancers.⁸

The International Agency for Research of Cancer of the World Health Organization states: "artificial contraceptives are carcinogenic on a par with cigarettes and asbestos."⁷

In a review of 34 case-control studies from various countries of the relationship between prior OC use and premenopausal breast cancer, researchers concluded that “Use of OCs was associated with an increased risk of premenopausal breast cancer in general,” increasing the risk by 19%. The association was particularly strong for women who used OCs before a first full-term pregnancy, increasing their risk by 44%.⁹

Relationship to **Circulatory Disorders:**

Nichols notes that “the Physician’s Desk Reference (PDR) states that users of birth control are three times more likely to develop superficial venous thrombosis [**blood clots**], and have a four to eleven times greater risk for deep vein thrombosis or pulmonary embolism than non-users. The risk goes up by a factor of 1.5 to 6 for those women who are genetically predisposed to clots.¹⁰ On top of this “well-established” risk, two recent studies indicated that hormonal contraceptives containing drospirenone (a type of progestin) increase the risk 2-3 times more. The U.S. Food and Drug Administration did its own study and found an increased risk of 1.5 times compared to hormonal contraceptives not containing drospirenone. It issued a safety warning on October 27, 2011 after reviewing these studies. On April 8, 2012, although it noted there was some conflicting evidence, the FDA stated the drug labels for drospirenone-containing birth control pills would need to report that some studies show a three-fold increase in the risk of blood clots. Contraceptives containing drospirenone include Yaz, Gianvi, Loryna, Yasmin, Ocella, Syeda, Zarah, Beyaz and Safyral.¹¹

The NuvaRing is a flexible ring that is inserted in the vagina, where it releases fertility suppressing hormones over three weeks. It is then removed for a week to stimulate a menstrual period. It contains a “third generation” type of progestin that has been found to pose a greater risk of blood clots than earlier types. The NuvaRing may also prevent implantation. As of May, 2013, some 1,163 lawsuits have been filed against its maker because of its life-threatening side effects.¹²

The hormonal IUD Merina also releases progestin into the uterus. It may prevent ovulation, make it difficult for the sperm to reach the egg, or interfere with implantation.¹³ Besides possibly contributing to blood clots, the device is known to increase the risk of pelvic inflammatory disease, may become embedded or tear the uterus, and has apparently injured thousands of women. Since 2000, FDA records indicate that over 50,000 Adverse Event Reports have been filed by women and health care professionals regarding its alleged side effects. As of July 10, 2013, there were over 200 Mirena lawsuits against the manufacturer, Bayer Pharmaceuticals, alleging that it caused serious health problems.¹⁴

High blood pressure is also a fairly common result of the use of hormonal contraceptives. The risk of **strokes and heart attacks** also increases.

Other Negative Effects on Health

Recent smaller studies suggest the use of hormonal contraceptives other than the pill also have negative impacts on women’s health. For example, a study of 95 women over two years who used DMPA, the birth control shot (administered once every three months) indicated that 45 of them experienced high **bone mineral density loss** in the hip or lower spine. This was particularly true of those women who were current smokers, had never given birth, and had a low daily calcium intake. Twenty seven of these women followed for a third year continued to lose bone mass.¹⁵ The U.S. Office of Women’s Health advises women not to use Depo-Provera (DMPA) more than two consecutive years because it causes bone loss. If used a long time, it may **increase the risk of fracture and osteoporosis**.¹⁶

Another study of 70 non-smoking minority women, 30 of whom used either OCs, the vaginal ring, or the transdermal patch had significantly **lower levels of essential vitamins and antioxidants** compared to 40 controls. The transdermal patch appeared to have the most negative effect. The vitamins and antioxidants involved are important to body cell health, and over the long term could be related to many chronic diseases, including cardiovascular disease, cancer, cataracts, and aging.¹⁷

EMERGENCY CONTRACEPTIVES OR MORNING AFTER PILLS

There are two main types of “emergency contraceptives” or “morning after pills.”

1. The first type, introduced in 2006, contains Levonorgestrel and goes by the names of **Plan B**, **One-Step**, and **Next Choice**. These became available over-the-counter for women 17 and older, and for male partners 17 and older in 2009. By the middle of June, 2013, they were available without prescription to females of any age. If taken within 72 hours of intercourse, they work by interfering with implantation of the embryo, or, if conception has not occurred, by suppressing ovulation or inhibiting sperm migration. A study published in the journal *Fertility and Sterility* found that 10% of 7,300 sexually active women aged 15-44 reported ever using an emergency contraceptive.¹⁸
2. The second type, introduced in 2010, is called **ella**, or ulipristal acetate. It is available only by prescription, and is said to be effective up to five days after intercourse. Unlike Plan B and other emergency contraceptives noted above, ella works like mifepristone, a major component of the abortifacient RU 486. It blocks the body’s progesterone, a hormone necessary to build and *maintain* the uterine wall. Hence, ella can cause the demise of an already-implanted human embryo. In approving ella, the U.S. Food and Drug Administration said it may “affect” implantation. In contrast, when describing Plan B’s action, it said that the drug may “prevent” implantation. It also explicitly stated that Plan B would not terminate an established pregnancy (i.e., one wherein the embryo had implanted). Hence, whether one considers pregnancy as commencing with fertilization or implantation, ella is an abortifacient.¹⁹ It should also be noted that ella is contraindicated if the woman is pregnant and wants to maintain the pregnancy, or if she is breastfeeding.²⁰

NATURAL FAMILY PLANNING.

For child-spacing methods which are drug-free, avoid the negative health risks described above, and require and enhance communication between husband and wife, go to any of these websites: www.americanpregnancy.org, Couple to Couple League www.ccli.org/nfp or www.NFPandmore.

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