

Plan B: Myth Versus Fact

1) Is Plan B a contraceptive or an abortifacient?

The truth is, no one knows for sure but it probably does work by causing early abortion at least part of the time. The *2010 Physician's Desk Reference* notes that Plan B "may inhibit implantation by altering the endometrium." In addition, Croxatto et al noted that Plan B only fully stops ovulation 12% of the time when given within two days of ovulation (*Contraception*, 2004: 442-450). This would point to an abortifacient method of action since ovulation and consequent fertilization would likely be occurring much of the time, yet visible pregnancy is usually absent. Finally, Mikolajczyk and Stanford showed via a sophisticated mathematical model, that if Plan B really were to be 75% effective, it likely would be working as an abortifacient at least some of the time (*Fertility and Sterility*, 2007: 565-570). In the future, researchers might be able to "prove" if and how often Plan B is an abortifacient by employing the use of a very early pregnancy tests which turn positive within the first 7 days of pregnancy (eg, EPF: Early Pregnancy Factor).

2) Does Plan B cause breast cancer?

Ironically, this question has never been asked. Theoretically, this is certainly possible especially in women who use Plan B often as a method of "birth control." How could this be? Plan B is composed of the hormone named levonorgestrel, which is a potent progestin which is also found in some of today's birth control pills. Birth control pills have been declared a Class 1 carcinogen (ie, the most dangerous type) by the World Health Association in June, 2005. In addition, the most recent meta-analysis published in the *Mayo Clinic Proceedings* (October, 2006) noted that taking the birth control pill before pregnancy results in a 44% increased risk of developing breast cancer prior to age 50. Finally, levonorgestrel's progestin "cousin" (ie, Depo Provera) has been noted to increase breast cancer by 190% in women who take 12 shots prior to age 25 (*JAMA*, 1995: 799-804). These data theoretically implicate Plan B if taken often enough. In addition, when a woman takes Plan B she ingests 1.5 mg of levonorgestrel within a twelve hour period of time which is nearly equivalent to the amount of progestin contained in an entire month's worth of some of today's low dose birth control pills (ie, 1.925 mg).

3) Does Plan B "work"?

No one really knows. The irony is that although the media and medical authorities initially claimed that Plan B was 75% effective in preventing pregnancy, more recent data by some of the world's leading experts note that its efficacy may be between 17% and 69% (Raymond and Trussell, *Contraception*, 2004: 79-81). If the lower estimate turns out to be true it means that women have essentially been taking a "placebo pill."

For more questions regarding Plan B please email Dr. Chris Kahlenborn at drchrisk@polycarp.org. For more information on the link between oral contraceptives and breast cancer or Plan B's method of action please see our research site at www.polycarp.org.