

## Emergency Contraception (“Morning After Pill”)

**Emergency contraception** refers to methods used to avoid pregnancy resulting from intercourse that has already taken place. In some cases, no contraceptive method was used, or perhaps the condom broke or slipped off. A pill used for this purpose is sometimes referred to as a “Morning After Pill,” although the drug may be taken up to either 72 hrs or 5 days after intercourse, depending on the specific method. It is more effective if taken sooner after intercourse. In addition to the drugs used for this purpose, the insertion of an IUD (intrauterine device), up to 5 days after intercourse, may also be used as “emergency contraception.”

Three types of drugs or combination of drugs are used for this purpose.

1. Combination of estrogen and progestin type hormones. Preven is an example of this type of product. The hormones are administered at higher levels than is used in birth control pills, and are administered in two doses, 12 hours apart. Side effects may include nausea and vomiting. Birth control pills, in higher than the usual daily dose, can also be used for this purpose.
2. Progestin only pills. Plan B or Next Choice are brand names for this drug. This type of drug is now available over the counter (without a prescription) for women age 18 and older. The dose may be taken as 2 pills 12 hours apart, or in a single dose (Plan B One Step).
3. Anti-hormone pills. Mefipristone (RU486) is used as a chemical method of abortion in early pregnancy (5 – 9 weeks). (See Abortion Techniques information sheet.) However, it or similar drugs may also be used as “emergency contraception”, up to 5 days after intercourse. The drug Ella, recently approved for marketing in the US, is in this category.

### **How do these methods work?**

**Hormonal pills:** The action of the hormonal drugs depends on the timing of the administration of the drug relative to the woman’s cycle. It may delay or prevent ovulation, prevent fertilization by making it harder for the sperm and the egg to move toward each other, or prevent implantation of the young embryo in the womb. If fertilization does not occur, then no new human life is begun. Once fertilization has occurred, the new embryo will normally proceed in his or her development by dividing into a ball of cells, called a blastocyst, which will then implant in the wall of the uterus in order to draw nutrients from the mother and continue developing. It is inaccurate to refer, as many of the descriptions of how Preven and Plan B work do, to the implantation of a “fertilized egg”. These authors define pregnancy as beginning with implantation rather than fertilization, and so continue to describe all the mechanisms of action of the drugs as preventing pregnancy, stating that the drug does not cause an abortion. They are presumably defining abortion as the ending of a pregnancy after implantation. The fact remains, however, that a new life begins when the egg and sperm unite to form a new human being. Preventing that human person from implanting in the uterus to obtain nutrition from the mother causes his or her death. Causing the death of a preborn human embryo, interrupting his or her normal development, is an abortion.

What actually happens depends on the timing of intercourse, ovulation, and the administration of the drug. The egg only lives for one day after ovulation; sperm may survive up to 5 days during the fertile period. So the fertile period, when conception is possible from intercourse, extends from 5 days before ovulation to one day after ovulation. If the drug is used before or after the fertile period of the cycle, pregnancy would not have been possible anyway, and the drug may simply cause bleeding prematurely in the cycle. If the drug is taken a few days before ovulation, ovulation may be delayed or suppressed. If

ovulation does not take place, or is delayed longer than the time that the sperm survives, conception will be prevented.

If the hormone surge that produces ovulation has already taken place, the pill cannot prevent ovulation. If ovulation does occur after intercourse, while the sperm is still living, conception may be prevented by the action of the drug to inhibit the mobility of the egg and sperm, preventing fertilization. However, it is still possible for fertilization to take place. If fertilization does take place in the fallopian tube, the inhibition of mobility may prevent the embryo from reaching the womb while it is still viable. If the embryo does not implant within 5 to 7 days after fertilization, it will die. The embryo may implant in the fallopian tube, creating a tubal pregnancy. A pregnancy in the fallopian tube will usually cause the tube to rupture around 6 weeks after fertilization, when the embryo must be removed and will die. In very rare cases, embryos have implanted outside the uterus and survived.

If ovulation has already taken place up to 24 hours before intercourse, the sperm may fertilize the egg within 15 or 30 minutes. Once fertilization takes place, the only way the drug can act to “prevent” pregnancy is to prevent the embryo from implanting in the uterus.

So, depending on the timing of ovulation, “emergency contraception” drugs may prevent fertilization from occurring or not. If fertilization does occur, or has already occurred when the pill is taken, the drug is still described as “preventing pregnancy” only because it prevents the newly conceived child from implanting in the mother’s womb.

**Anti-hormonal pills:** RU486 and Ella are progestin antagonists. That is, they block the action of progestin in the body. Progesterone, the natural progestin in humans, is referred to as the hormone of pregnancy. It is necessary for the pregnancy to be maintained. Blocking the action of progesterone can not only prevent implantation but kill an implanted embryo, as is clearly the case with RU486 when it is used later in the pregnancy.

It may seem odd that giving progestin and blocking the action of progesterone both produce the same effect. However, implantation of the embryo is a complex process, and excess progesterone, whether given in Plan B or other emergency contraception, or in regular birth control pills, will interfere with the process.

**IUD:** An IUD does not prevent ovulation at all; it is said to inhibit fertilization of the egg, by inhibiting motility, and definitely prevents implantation. It is described as being 99% effective when inserted within 5 days of intercourse. Since conception may in fact take place either immediately after intercourse, or up to 5 days after, the IUD clearly acts to cause the death of a newly conceived child by preventing implantation.

References: All accessed on 9/7/2010.

<http://www.morningafterpill.org/how-does-it-work.html>

<http://www.drugs.com/mtm/preven-ec.html>

<http://www.drugs.com/plan-b.html>

<http://ec.princeton.edu/info/eciud.html>

This information has been compiled by Christian Voices for Life of Fort Bend County.  
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