Birth Control as Abortifacient

What is an abortifacient? An abortifacient is simply a drug or device that causes abortion, that is causes a young preborn child to die. Intrauterine devices (IUDs) that do not contain hormones do not prevent conception at all, and "prevent" pregnancy solely by preventing the newly conceived child from implanting in the uterus. (1) While some biologists would like to define pregnancy as beginning at implantation, human life clearly begins at conception, when the egg and sperm have joined together to create a new human person. Hormonal birth control was originally designed to act by preventing ovulation, that is, the production of an egg by the woman, thereby truly preventing conception. However, in some cases ovulation and therefore conception can occur, and the hormonal birth control methods can then also act to prevent implantation, and therefore act as an abortifacient.

What are the various types of hormonal birth control? Hormonal birth control includes any method which delivers hormones to the body for the purpose of preventing pregnancy. These include those that contain a combination of progestin and estrogen-type hormones (the pill, the patch, vaginal ring) and those that contain progestin only (the "mini-pill", Depo Provera shot (administered once every 3 months), Norplant, the new implant Implanon, and the Mirena IUD (intra-uterine device)). The methods may vary in how the hormone is delivered to the body (by mouth, through the skin, injection, slow release from an arm implant, or by absorption through vaginal or uterine tissue, but once in the bloodstream, travel throughout the body and act in similar ways.

How hormonal birth control works: There are four separate mechanisms by which hormonal birth control works.

1. The original design of the birth control pill was **to prevent ovulation** by affecting the pituitary gland, preventing it from releasing the hormones which regulate the monthly cycle and stimulate egg production. If the pituitary does not produce the needed hormone, the ovary does not cause the maturation and release of an egg. If no egg is released, then there is no egg to be fertilized, and pregnancy cannot take place. The original dose given to achieve this effect, however, produced serious side effects. "High-dose COCs [combined oral contraceptives] in the 1960s and 1970s contained as much as 50 µg to 150 µg estrogen and 10 mg progestin, and were reported to be associated with risks of serious cardiovascular side effects, including venous thrombosis (a blood clot in a vein), heart attack, and stroke."(2) Most birth control pills used today have lower doses of both hormones: 35 µg or less estrogen and 400 µg or less progestin. (400 µg is 0.4 mg) Some "low dose" pills have as little as 20 ug of estrogen. While the focus has been on the decrease in side effects with the lower doses, little is said about the effect on ovulation. While the observed effectiveness in preventing pregnancy remains high with the lower doses, the rate of ovulation has not often been studied. The progestin-only pill only prevents ovulation in about half of cycles (3), and ovulation with Norplant has been cited as high as 44%.(4) It is apparently the estrogen component, therefore, that is primarily responsible for stopping ovulation, and it would make sense that ovulation would occur more often at the lower dose.

   Breakthrough ovulation may also be effected by not taking the pill at the same time every day to consistently maintain the hormone level required to prevent ovulation. Planned Parenthood recommends the use of a backup birth control method for 48 hours after a progestin-only pill is taken 3 hours late, and for combination pills states that "There is a highly increased chance of pregnancy if you go without hormones for seven or more days in a row. This could happen if you don't start a new pack on time and/or forget to take the last one or two pills in the pack."(5) They recommend using a backup method of birth control for seven days after missing one or two pills at the beginning of the pack.(5)
2. The second mechanism for preventing pregnancy is that the pill may act to **thicken the cervical mucus**, making it more difficult for the sperm to enter the uterus or the fallopian tube. This effect would therefore again mean a prevention of conception, since the sperm may not be able to reach the egg, even if an egg were present. However, the author of one article states that the evidence for this mechanism is weak.(4)

3. The third mechanism of action of hormonal birth control is to decrease the action of cilia (small hair-like structures) inside the fallopian tubes, thereby **slowing the transport of the egg to the uterus**.(6) The fallopian tube is the narrow tube structure that brings the egg from where it is released from the ovary to the uterus. When the sperm enter the uterus, they normally also enter the fallopian tube, and it is generally inside the relatively constrained volume of the tube that fertilization takes place. The fertilized egg then continues its travel toward the uterus. As it travels, it will begin to divide into a number of cells, but can only survive for a short time before implanting in the uterus in order to receive nutrition from the mother. If the hormonal action of the birth control drug slows the movement of the egg to the uterus to the point where it does not reach the uterus in time, the newly conceived child will die.

4. The fourth mechanism of action is also an abortifacient effect, where **the lining of the uterus is changed to make it less hospitable for implantation.** Women taking the pill often observe that their periods are lighter, verifying that the uterine lining is thinned, less built up, with the use of the birth control. If an egg is produced, and sperm are able to enter the uterus, **conception can take place**. The newly conceived child would then normally implant itself in the uterine wall in order to begin receiving nutrients and oxygen from the mother, to continue his or her development. The normal hormonal cycle stimulates the uterine lining to be at its peak in readiness for the child a few days after ovulation. The developing child, implanted in the uterus, would then produce the hormones that stop the monthly cycle and maintain the pregnancy. The birth control hormones can prevent this process of implantation, and the monthly cycle continues when the birth control hormones are removed (by removing the patch or ring, or using placebo pills, that is 'sugar' pills without the hormone). Menstruation occurs, and the young child is swept out the uterus along with the uterine lining being shed. The woman is never aware of being pregnant, and no pregnancy is observed. However, a child was in fact conceived and aborted at a very young age. It is difficult to estimate how often conception might take place with the use of combination hormonal birth control, perhaps only 1 or 2 % of the time. One author estimated that a silent chemical abortion takes place, on average, once for every 200 menstrual cycles that a woman is continually on a combination birth control pill. However, with millions of women around the world using these methods of birth control for extended periods, that means millions of lives have been lost.

   In the case of long-term progestin-only drugs such as Depo Provera and Norplant, women often stop having monthly periods, but ovulation is only partially suppressed and the observed "prevention" of pregnancy may often be due to the prevention of implantation.

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