# **Use of Oral Contraception**

Benefits, Risks and Ethical Dilemma



## Healthcare

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## **Abstract**

Contraception as a method to prevent pregnancy has been used since ancient time by many cultures. In Albania, traditional withdrawal was the preferred choice for many years. Oral contraceptives were legalized in Albania in 1992 and have been distributed free at government health centers since 1993. Nevertheless, Albanian population have more confidence in traditional withdrawal than in modern methods of contraception, emphasizing how little couples know about family planning and the weakness of subsequent family planning education efforts. However, some ethical dilemmas and groups oppose the distribution of contraceptives. This piece of paper will be focused in use of oral contraceptives, benefits, risks and ethical point of view.

#### Introduction

Contraception as a method to prevent pregnancy has been used since ancient time by many cultures. Methods used have ranged from coitus interrupts, vaginal tampons treated with spermicidal herbal by Egyptians in 1550 B.C.,1 use of animal membrane condoms in eighteenth century, to new era with introduction of oral contraceptive in 1960. However, contraception remains controversial with some ethical dilemmas and groups oppose the distribution of contraceptives.

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## Discussion

In order to better understand the role of oral contraceptive in human body lets begin with a couple of questions. First, what are oral contraceptives? Oral contraceptives consists of two forms of hormones; progestin alone and combined of estrogen and progestin. Estrogen and progestin regulate woman's menstrual cycle, and fluctuating the levels of these hormones play an important role in fertility. Second, what is mechanism of action of oral contraceptives? Summarizing in one sentence it can be described as; oral contraceptives act to suppress ovulation, thin the endometrium of the uterus, and thicken cervical mucus, where each of these is an attempt at preventing conception from occurring. Third, what are oral contraceptives used for? Oral contraceptives are used as mentioned above for preventing a pregnancy and also the other use of oral contraceptives is for treatment of medical disorders.

# Benefits associated with use of oral contraceptives

Continuous use of oral contraceptives appears to have multiple benefits. Oral contraceptives can help manage menstruation, endometriosis, polycystic ovary syndrome, premenstrual syndrome, menstrual migraines, acne, and seizures that occur at the time of menses. Dysmenorrhea which is the most common menstrual disorder, the prevalence among adolescent females ranges from  $60 - 90 \, \%$ . Many adolescents report limitations on daily activities, such as missing school, sport and social activities because of dysmenorrhea. Menorrhagia, it is reported from recent papers that  $10 \, \%$  of fertile women suffer from menorrhagia, where excessive blood loss may lead to iron deficiency anemia and even surgical intervention, with use of oral contraceptives menstrual blood loss has been reduced by  $50 \, \%$ . Acne which is the most common skin condition where used oral contraceptives is treatment of choice, affecting up to  $40 \, \%$  of adolescents and approximately  $10 \, \%$  of adult women.

### Risks Associated with the Use of Oral Contraceptives

The risks that accompany use of oral contraceptives, including increased blood clotting, increased risk of cardiovascular problems, a decrease in bone density, and an increased risk of specific types of cancer. Research studies causing great concern include those that have indicated an increased incidence of venous thrombosis due to increased blood clotting related to the use of oral contraceptives. This increase in blood clotting is said to cause other problems, including myocardial infarction, stroke, and hypertension. <sup>9,10</sup> The increased risk of these events seems to be caused by an increase in the procoagulant factors needed for blood clotting, including fibrinogen and factors VII, IX, X, and XII. While many studies have published the benefits that the use of oral contraceptives can have on decreasing the risk of many types of cancers, research has shown that the use of the pill can also increase the risks of developing certain other types of cancer such as cervical cancer, breast cancer and benign liver tumors. <sup>6,7,8</sup>

A number of studies suggest that current use of oral contraceptives appear to increase risk of breast cancer, cervical cancer and benign liver tumors. ibid Use of oral contraceptives are linked with increased risk of a venous thromboembolic event and cardiovascular disease, manifesting as stroke and myocardial infarction were reported soon after their introduction to the market in the early 1960s. 9,10

#### **Ethical issues**

Perhaps the one of the main controversy in regards to oral contraceptives is the question of whether or not the use of oral contraceptives can cause spontaneous abortions to occur. This would not create a dilemma, if one suppose that life does not begin at conception. On the other hand, if one believes life does begins at conception, anything that has the potential to cause an abortion should be avoided.

According to the Physicians' Desk Reference, each listing under oral contraceptives has a failure rate of 3%, this implies that couples who used oral contraceptives consistently and correctly for an entire year would still have a pregnancy rate of 3%. <sup>11</sup> The use of technology further supports the claim that oral contraceptives cause the uterus to become a hostile environment for implantation. Magnetic Resonance Imaging shows that the endometrial lining in a woman taking oral contraceptives is up to 58% thinner than in a non-user. <sup>12</sup>

Just as oral contraceptives have failure rates for not suppressing ovulation and not thickening the cervical mucus enough to prevent the sperm from reaching the egg, they can also fail to thin out the endometrium. This is how implantation can occur, the life of the child can be sustained, and the woman taking birth control pills can find herself pregnant. Those who do not believe that life begins at conception face no difficulty using birth control pills that are considered abortifacients. However, those who believe that life does begin at the very moment of conception face a dilemma.

# Conclusion

After identifying both the risks and benefits of oral contraceptive use have positive effects by decreasing risks for certain types of cancer, reducing the pain and symptoms associated with menstrual cycles, and by treating health problems such as polycystic ovarian syndrome and acne. On the other hand, oral contraceptives can also increase the risk for certain cancers, cause an elevation in blood clotting, and increase cardiovascular problems. It appears that it is as beneficial as it is potentially dangerous to use this form of contraception. Ethical dilemmas and debates continue to be present. However, there remains a final issue that has the potential to tip the scale for women considering the use of oral contraceptives. Before patients begin a drug regimen of any type, it is imperative that they are fully informed about the risks and benefits.

Balancing the use of oral contraceptives in treating chronic problems with the risk of causing an abortion remains a challenging task. Because of dilemmas like this, it is imperative that each woman be made aware of the risks and benefits of being placed on oral contraceptives to allow them to make a fully informed decision.

### References

- 1. McLaren A, A History of Contraception: From Antiquity to the Present Day (Blackwell, 1990).
- 2. Hertweck SP. Dysfunctional uterine bleeding. Obstet Gynecol Clin North Am 1992; 19:129.
- 3. Wilson CA, Keye WR Jr. A survey of adolescent dysmenorrhea and premenstrual symptom frequency. A model program for prevention, detection, and treatment. J Adolesc Health Care 1989; 10:317.
- 4. LarssonG, Milsom I, Lindstedt G and Rybo G (1992) The influence of a low dose combined oral contraceptive on menstrual blood loss and iron status. Contraception 46,327–334.
- 5. Thiboutot D, Archer DF, Lemay A, Washenik K, Roberts J and Harrison DD (2001) A randomized, controlled trial of a low-dose contraceptive containing 20 mg of ethinyl estradiol and 100 mg of levonorgestrel for acne treatment. Fertil Steril76,461–468.

- 6. Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and hormonal contraceptives: collaborative reanalysis of individual data on 53,297 women with breast cancer and 100,239 women without breast cancer from 54 epidemiological studies. Lancet 1996; 347(9017):1713–1727.
- 7. International Collaboration of Epidemiological Studies of Cervical Cancer, Appleby P, Beral V, et al. Cervical cancer and hormonal contraceptives: collaborative reanalysis of individual data for 16,573 women with cervical cancer and 35,509 women without cervical cancer from 24 epidemiological studies. Lancet 2007; 370(9599):1609–1621.
- 8. Farges O, Ferreira N, Dokmak S. Changing trends in malignant transformation of hepatocellular adenoma. Gut 2011; 60(1):85–89.
- 9. Jordan WM. Pulmonary embolism. Lancet. 1961;ii:1146-1147.
- 10. Lorentz IT. Parietal lesion and "Enavid." Br Med J. 1962; 2:1191.
- 11. Alcorn, Randy. (2008). A short condensation of does the birth control pill cause abortions. Eternal Perspective Ministries.
- 12. Brown H.K., Stoll, B.S., Nicosia, S.V., Fiorica, J.V., Hambley, P.S., Clarke, L.P., & Silbiger, M.L. (1991). Uterine junctional zone: Correlation between histologic findings and MR imaging. Radiology, 179, 409-413.