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## God's Law and the Use of Hormonal Birth Control

The Church in America needs to hear preaching to their consciences regarding the use of hormonal birth control. Guttmacher reports "[i]n 2018, 65% of U.S. women aged 15–49 were using a contraceptive method" and 99% of evangelical Protestants surveyed had used contraceptive methods at some point in their life (Guttmacher Institute). Whether pastors do not preach it or church goers are dull of hearing, few have their consciences pricked by Scripture's teaching that "reproduction is a divine command (Gen. 1:28, 9:1), a divine blessing, and a means to the fulfillment of God's purposes" (Frame 784). But contraceptive use is not just contrary to God's divine command for reproduction.

Commonly used contraceptives end the life of an unborn child, contrary to God's command not to murder. "Some kinds of birth control pills, for example, should not be used, since they in effect produce abortions. They do not prevent fertilization, but they kill fertilized eggs, either directly, or by preventing their implantation" (Frame 786). And any use of contraceptives should comply with God's prohibition against murder, which means "that birth control should prevent conception<sup>1</sup>, not kill a human being already conceived" (Frame 786).

Since the contraceptive process is invisible to the naked eye, it's important to understand how viable pregnancies are prevented. There are two general categories of operation that need to be considered: pre-fertilization mechanisms and post-fertilization mechanisms.

<sup>&</sup>lt;sup>1</sup> Conception is not a helpful term as it was intentionally re-defined in 1959 as implantation rather than fertilization to make birth control more palatable (Evangel Presbytery 7).

Pre-fertilization mechanisms include: (1) prevention of ovulation, (2) inhibition sperm transport, or (3) damage to the egg.<sup>2</sup> Pre-fertilization mechanisms do not cause an abortion, because the fertilization of the egg is prevented, thereby preventing the formation of a new person.<sup>3</sup>

Post-fertilization mechanisms cause an abortion by ending of life of a person unique from his<sup>4</sup> mother. These post-fertilization mechanisms occur when there is a breakthrough ovulation, which means the contraceptive failed to prevent ovulation. Hormonal birth control pills<sup>5</sup> are the most commonly used form of reversible contraceptive, and will be the focus of this paper.<sup>6</sup> Breakthrough ovulation occurs between 1.7% to 28.6% per monthly cycle with oral contraceptives.<sup>7</sup> Post-fertilization mechanisms include: (1) inhibition of the early embryo's transport through the fallopian tube, (2) inhibition of implantation in the uterus, and (3) failure of the uterus to support the implanted embryo.

<sup>&</sup>lt;sup>2</sup> "Secondary prefertilization effects may include alterations in cervical mucus that limit sperm penetration and changes in the endometrium and fallopian tube that may impede normal sperm transport" (Walter L. Larimore and Joseph B. Stanford)

<sup>&</sup>lt;sup>3</sup> Space is too limited here to address the personhood of the unborn child, which I have previously addressed in "The Image of God in an Early Embryonic Zygote" <u>https://christianlegalethics.com/wp-content/uploads/2023/12/20220511-Image-of-God-in-Early-Embryonic-Zygote.pdf</u>. For purposes of this paper, fertilization is the moment of creation of a new person. Frame does not go into specifics, but argues that "Exodus 21:22-25 protects the unborn child by the force of law. Note also that on none of [the previously discussed] interpretations is there any distinction based on the age of the fetus. The legislation treats all unborn life the same" (Frame 721).

<sup>&</sup>lt;sup>4</sup> I use the male pronoun for the child throughout not to be sexist, or even in defense of the male inclusive, but primarily because it is easiest to distinguish in writing between child and mother.

<sup>&</sup>lt;sup>5</sup> Unless specified, hormonal birth control or oral contraceptive in this paper refers to a combined oral contraceptive having oestrogen and progesterone. Progestogen only pills are a different type of oral contraceptive that has a much higher post-fertilization abortifacient mechanism.

<sup>&</sup>lt;sup>6</sup> Guttmacher reports 21% of contraceptive users use hormonal birth control. The only contraceptive method more common is female permanent contraception (such as tubal ligation).

<sup>&</sup>lt;sup>7</sup> "[S]tudies that evaluated women [using oral contraceptives] for at least 6 cycles demonstrated ovulation rates ranging from 1.7%25 to 28.6%23 per cycle. For [progesterone only pills], reported breakthrough ovulation rates range from 33% to 65%" (Larimore 2)

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For an early embryo to develop properly, he must travel through his mother's fallopian tube into the uterus. Failure of the early embryo to move through the fallopian tube results in either (a) implantation in the tube resulting in an ectopic pregnancy or (b) death of the embryo due to failure to implant anywhere. Death of the embryo due to failure to implant is basically undetectable by man.<sup>8</sup> The rate of ectopic pregnancies in pregnant women taking oral contraceptives increased by between 1.7x and 14x compared to the number of ectopic pregnancies in pregnancies in pregnant women not taking oral contraceptive.<sup>9, 10</sup> This increase in the relative risk of ectopic pregnancy is evidence of a postfertilization action of the oral contraceptives.

Oral contraceptives also thin the endometrium to levels that prevent implantation of the early embryo. The embryo must implant in the endometrium of the uterus, otherwise he dies. Implantation requires the endometrium be between 5mm to 13mm thick, but "average endometrial thickness in women taking [oral contraceptives] is 1.1 mm."<sup>11</sup> That means oral contraceptives reduce the endometrial thickness to a level (1.1mm) below that which is required to support implantation (5-13mm), which would result in the death of an early embryo that was

<sup>&</sup>lt;sup>8</sup> "Around day 7, the blastocyst begins to implant into the lining of the uterus. During implantation, the embryo produces human chorionic gonadotrophin (hCG), detection of which "represents the first reliable opportunity to identify the existence of an embryo" (Jarvis).

<sup>&</sup>lt;sup>9</sup> "All published data that we could review indicated that the ratio of extrauterine-to-intrauterine pregnancies is increased for women taking OCs and exceeds that expected among control groups of pregnant women not currently using OCs. These case-controlled series come from 33 centers in 17 countries and include more than 2800 cases and controls. The odds ratios in these studies ranged from 1.7 (95% confidence interval [CI], 1.1-2.5)72 to 1.8 (95% CI, 0.9- 3.4) to 4.3 (95% CI, 1.5-12.6)74 to 4.5 (95% CI, 2.1-9.6) to 13.9 (95% CI, 1.8-108.3)" (Larimore 4).

<sup>&</sup>lt;sup>10</sup> That means the absolute number of ectopic pregnancies is lower in women taking oral contraceptives, but if a woman taking oral contraceptives is to get pregnant there is a greater likelihood that the embryo will implant in a fallopian tube. "This model would predict an absolute risk ranging from 0.7 (40 3 0.0156 3 1.1) to 19.9 (80 3 0.0179 3 13.9) ectopic pregnancies per 1000 woman-years. We could only find one study, from Zimbabwe, which reported an absolute risk of ectopic pregnancy in women taking OCs of 0.582 per 1000 woman-years" (Larimore 4).

<sup>&</sup>lt;sup>11</sup> "The minimal endometrial thickness required to maintain a pregnancy in patients undergoing in vitro fertilization has been reported, ranging from 5 mm to 9 mm to 13 mm, whereas the average endometrial thickness in women taking OCs is 1.1 mm." (Larimore 3)

able to successfully exit the fallopian tube. The effect of hormones on the uterus should not be surprising, as it is common for pregnant women to take supplementary hormones to reduce their risk for miscarriage.

Another likely post-fertilization mechanism for oral contraceptives is rendering the uterus incapable of receiving implantation. This is a biochemical alteration of the surface of the endometrium that has a similar, but distinct, effect on the embryo's ability to implant. <sup>12</sup>

It's important to understand that these mechanisms are all evidence that oral contraceptives end the life of an embryo after fertilization. At this point, the embryo is a distinct person looking for safety within his mother's uterus, but his efforts are thwarted because the oral contraceptives have made the environment hostile to this new life. These are well documented effects of oral contraceptives, for example "the Physicians' Desk Reference states, 'Although the primary mechanism of this action is inhibition of ovulation, other alterations include changes in the cervical mucus, which increase the difficulty of sperm entry into the uterus, and changes in the endometrium, which reduce the likelihood of implantation" (Larimore 1).

At the minimum this means Christian families should be aware that they are making the mother hostile to a child's new life should she have a breakthrough ovulation. Breakthrough ovulation happens between once every five years and three times per year. Fertilization rates of women using oral contraceptives has not been studied, so it's not possible to directly calculate the precise number of abortions caused by oral contraceptives.

Does this mean all oral contraceptive use is immoral? There is an easy case to make

<sup>&</sup>lt;sup>12</sup> "In most OC users, the normal patterns of expression of the integrins are grossly altered, leading Somkuti et al68 to conclude that the OC-induced integrin changes observed in the endometrium have functional significance and provide evidence that reduced endometrial receptivity does indeed contribute to the contraceptive efficacy of OCs. They hypothesized that the sex steroids in OCs alter the expression of these integrins through cytokines and therefore predispose to failure of implantation or loss of the preembryo or embryo after implantation." (Larimore 3-4)

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against Progesterone only contraceptives. Progesterone only contraceptives do not reduce the rate of ovulation to the extent that combined oral contraceptive pills do. This means their prefertilization effect is lower and there is a probable abortion "in less than a year of use" of progesterone only pills (Calcada 68).

The case against combined oral contraceptives is less precise, because there are a number of factors that have not been measured to give an accurate picture of the likelihood of abortion.<sup>13</sup> Calcada estimates the probability of an abortion attributed to the use of a combined oral contraceptive occurs between 1 year and 58 years of use.

While not primarily addressed here, intrauterine devices (IUD) are used by 16% of contraceptive users. Popular IUD Paragard T-380 (Copper-380) results in an abortive loss of an early embryo every 1-5 years of use (Stanford 1705). Popular IUD Mirena (Levonorgestrel-20) results in an abortive loss of an early embryo every 6 months to 2 years of use (Stanford 1705)

Just because we don't have precise statistics for some of these contraceptive methods does not stop us from making moral judgements. If we had a mode of transportation that *could* kill a child within one year of use, it would seem reckless for a parent to use it.<sup>14</sup> With a wide range of risk potential, it would be prudent for Christians to weigh this risk. There may be therapeutic reasons that the risk is acceptable. But if the purpose is merely to resist God's divine command for reproduction, then clearly the risks are not justified.

<sup>&</sup>lt;sup>13</sup> Additionally complicated is that "10-40% is a plausible range for pre-implantation embryo loss" without any use of oral contraceptives (Calcada 57). This is a fragile time of life even in the best of circumstances.

<sup>&</sup>lt;sup>14</sup> Frame describes a "Doctrine of Carefulness" for Christian's ethic of protecting unborn life, while acknowledging that this Doctrine of Carefulness "does not apply to situations where there is, say, only a 2-percent probability that our action will destroy human life" (Frame 724).

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