

# Gender and Medical Technologies

## FEMALE CONTRACEPTION: "THE PILL"

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### INTRODUCTION

Hormonal birth control is one of the most popular methods for contraception today. It is a method that acts on the endocrine system, which is the "messenger" system of the body. The messengers are what we call hormones. The default endocrine system operates with hormonal feedback loops that are the fundamental way of communication between the brain and the body. Hormonal supplements are a way of "hacking" into the system and changing the natural cycles of the body. The intended hormonal intervention can repress and or induce certain phases of the menstrual cycle, making it optimal to use as a contraceptive. It can also be used to treat the symptoms of certain hormonal imbalances such as hormonal acne. The hormones are available as pills, patches, injections, intrauterine devices or vaginal rings. (National Cancer Institute)

Here are the two main formulations of hormonal contraception: Combined methods with estrogen and progestin. This method essentially thickens cervical mucus and suppresses ovulation. Progestogen-only methods containing progesterone or one of its synthetic analogues and relies on reducing ovulation frequency and thickens cervical mucus.

Although female contraception has played a great role in equality for women, it does implicate many negative side effects for its users. From minor side effects such as nausea, migraines, weight gain and a lowered libido to serious effects such as blood clots, high blood pressure, liver tumors and increased risk for cancers. Asides from physical effects, it can have a large influence on the mental well-being of its consumer. Procedural trauma such as IUD insertions without the use of local anesthesia and painful IUD fittings are also side effects that plague many users of female contraception. Many hormonal contraception users have reported symptoms of depression and anxiety. Researchers are in disagreement concerning the link between mental health issues and using hormonal birth control. A very valid reason for the lack of knowledge in this area is the lack of research and investment in female clinical-trials. (2022, WebMD)

It is safe to say that the development of safe and well researched female contraceptive methods is not highly prioritized. A fitting way of describing it is by "trial and error". The development process of male hormonal contraceptives are a good way to emphasize this inequality. Male contraceptives have been developed, but never licensed for use due to their "negative side effects" that shockingly correspond to those of female contraception. (Carmen, K. 2021)

### HISTORY

History of gynecology is... difficult, to say the least. In medieval Europe, medical manuscripts, such as the Dutch *Der vrouwen heimelijcheit* (Secrets of women), have shed light on the approach to female anatomy and physiology. Women's health was always veiled under superstition, mystery and even fear. The default body was the one of the man and women were seen as this mystery succubus, surrounded by "secrets". Forwarding the timeline a little, modern day gynecology stands on, yet again, a lot of pain, misunderstanding and mistreatment.



In the American south, unethical and racist practices done on enslaved black people were a common occurrence, and the field of gynecology took advantage of that as well.. Thus, this is where the intersection of gender and racial bias in medicine that we still have to fight even today, comes from. In the western world, the belief that black people have "higher pain tolerance" still occurs in some doctors' offices. The statistics don't lie: it's one of the reasons why black women in America are 3x more likely to die during childbirth than white women... We might've come a long way since mutilating BWs bodies without their consent or any anesthesia, some might say that the times of testing first contraceptive pills on Puerto Rican women without their informed consent are long gone, even forgotten, but we have to face the fact that the medical bias is an ongoing issue and that womens' pain, especially BWs' pain, is still being neglected. (Skovlund, C.W. 2016)

Now that we briefly covered the history of gynecology, let's go back to that trial on Puerto Rican women. The year is 1956 and the first contraceptive pill is being tested on subjects that are not aware of what they're taking. Side effects of nausea, headaches, dizziness and even life-threatening blood clots start emerging, making many of these women opt out from the experiment. However, the doctor behind this pill, Gregory Pincus, revealed what the medicine was for in hopes of convincing the patients, so he wouldn't have to end the experiment. The idea of having their fertility "under control" attracted the impoverished Puerto Rican women back. The pill, Enovid, had 100x times higher concentration of estrogen and progesterone than the modern day pill, and apart from the side effects, it's debated that it killed at least three of the participants. Some of the women also got pregnant during the trial. Despite all this, the experiment was considered a success and Enovid (after the trial now with lower hormonal concentration) was approved first as medicine for menstrual disorders in 1957 and in the year of 1960 finally as a contraceptive... only available to married white American women. (Sowemimo, A., 2021)

The pill, despite its dark history and side effects that are still prevalent to this day, laid perfect ground for the 60s sexual liberation movement. The 1950s housewife was now freed from the chains of her domestic chores, children and her husband, invited to discuss her own sexuality, fertility and pleasure. Around the western world, people came up with a new set of values trying to normalize nudity, premarital sex and cohabiting, pleasure, non-monogamous relations, fighting for queer rights and reproductive rights (access to contraception and abortion).

Even those who are not a fan of "the pill" cannot deny its importance of this movement. However, the pill could also be seen as a tool of social engineering, as with the technology and science that we have available, the responsibility and blame was put only on one half of the population. More on that in the next part.

### THE PILL FOR MEN

The problems women face concerning hormonal contraception pills could be solved by developing the equivalent contraception for men. A mini-review published by the European Association of Urology as late as 2022 shows that more than 50% of men would be willing to take contraceptive medication if available (Leiber-Caspers, 2022).

Men are not subjected to the health risks associated with birthing and pregnancy; thereby, any contraception developed for males will systematically need a higher safety profile since the safety profile correlates with the potential risks the consumer faces without birth control in contrast to the benefits. Thus, approved male contraceptives will have fewer and milder side effects, if not an absolute minimum, since men face no health risks associated with pregnancy (Long et al., 2021; Leiber-Caspers 2022 ).

Developing birth control for men would not only lessen the financial and health-related burden of contraceptives for women and possibly make it more equal between the sexes. However, it would also be beneficial as the health-related risks associated with the contraception pill would drastically reduce overall.

When discussing the safety profile and men's nonsubjective to the risks of pregnancy, the shared risk for both panthers from both biological and psychological perspectives is not considered. Nevertheless, instead, it focuses solely on the biological effect on men.



### THE DOUBLE STANDARD BETWEEN THE SEXES

The perspective that men are subjected to no health risks associated with pregnancy, thus resulting in a higher safety profile for male contraceptives than women, can be viewed as quite problematic. The difference in risk assessments based on sex can be interpreted as a double standard (ChoGlueck, 2022).

The higher safety profile for men has been the reason that clinical trials for effective male birth control with effective results have been discontinued, where the side effects consist of, among others, mood changes, depression, increased libido, and acne. The reasoning is that the risks outweigh the potential benefits (Behre et al., 2016), even though women have suffered similar side effects since the contraction pill was developed decades ago ( El Ayadi et al., 2007). Interestingly 80% of the men that were in the clinical trial wanted to continue to take the male contraceptive regardless of the side effects.

Men have equal implications for pregnancy as women and should thereby have equal responsibility in preventing it, but do not equally share the consequences a pregnancy might result in. This is because they are biologically unable to share the health burden if contraceptives fail and are by the set standard not to share the burden of contraceptives equally.

Historically in the 1950s, an early version of the hormonal contraception pill was initially considered for men but changed to be suitable for women as "it was believed women would tolerate side effects better than men, who demanded a better quality of life" (The Atlantic 2016). This sexist and misogynistic historical view of the value of female suffering versus male suffering might still be influencing how the safety profiles of birth control are being decided for the different genders, in combination with historical gender norms (El Ayadi et al., 2007).

Another case that showcases the double standard of safety profiles between men and females is presented when discussing an oral testosterone pill for men, where because of its short half-life, it needs to be administered daily, which is deemed impractical for men (Leiber-Caspers, 2022), completely ignoring that daily administration is also necessary for women when taking oral hormonal contraception.

The higher safety profile for male contraceptives is based on the fact that the risk assessment is done from an individual model instead of focusing on a shared model for sexual partners (ChoGlueck, 2022), thus not sharing the risks of pregnancy between both partners equally.

Health-related risks women face as side effects of hormonal contraception pills could be solved by developing birth control for men, since contraceptives for men will be safer with minimal side effects. The review "Why Is There Still No "Pill for Men"? Current Developments in Hormonal and Nonhormonal Medical Contraception for Men" states that the development of male contraceptives with high safety profile is promising and that with proper financing for research, the goal might be reachable in the coming 5 to 10 years (Leiber-Caspers, 2022). Another solution would simply be to develop birth control for women with a higher safety profile as well.



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