

Synthetic Progesterone Linked to Increased Risk of Brain Cancer

Analysis by [Dr. Joseph Mercola](#)

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STORY AT-A-GLANCE

- › Synthetic progesterone derivatives, particularly medrogestone, medroxyprogesterone acetate and promegestone, have been linked to a significantly increased risk of intracranial meningiomas, especially with long-term use exceeding one year
- › A large Norwegian study found that hormone therapy using synthetic progesterone, particularly when combined with estradiol, increased breast cancer risk. The risk escalated with duration of use, reaching up to 3.5 times higher after five years
- › Recent research shows progestagen-only contraceptives, including pills, injections, implants and IUDs, increase breast cancer risk by 20% to 30%. This risk persists for five to 10 years after stopping use
- › Natural progesterone offers health benefits as a cortisol blocker and estrogen inhibitor, supporting mitochondrial function. It's beneficial for both sexes
- › Transmucosal progesterone application is recommended over transdermal methods. It's best used with a bioidentical formulation dissolved in natural vitamin E, taken 30 minutes before bed to enhance sleep quality

Birth control pill or hormone therapy might be hiding a serious risk. A groundbreaking French study¹ has uncovered alarming links between certain synthetic progesterone medications and an increased risk of brain tumors. Specifically, the research focused on intracranial meningiomas – tumors that develop in the membranes surrounding the brain and spinal cord.

While typically benign, these tumors can cause debilitating symptoms and often require surgical intervention. The study, which analyzed data from over 108,366 women, found that prolonged use of specific synthetic progesterone derivatives significantly raised the likelihood of developing these tumors.

This research expands on previous findings about the risks of synthetic progesterone and sheds light on the dangers lurking in these widely prescribed medications. Natural progesterone, on the other hand, is a potent cortisol blocker and offers many health benefits.

Synthetic Progesterone Increases Risk of Meningioma

The study pinpointed three synthetic progesterone derivatives as particularly problematic: medrogestone, medroxyprogesterone acetate and promegestone. Using these medications for extended periods significantly increased the risk of developing a meningioma requiring surgery. Symptoms of meningioma include persistent headaches, vision problems, memory loss or other unexplained neurological issues.

Medrogestone, commonly prescribed for menstrual disorders and menopausal symptoms, was associated with a 3.5-fold increase in risk. Even more concerning, those who used medroxyprogesterone acetate, an injectable contraceptive used by millions of women worldwide, had a staggering 5.5 times higher risk compared to non-users.²

Promegestone, though no longer on the market, was linked to a 2.4-fold increase in risk. These elevated risks were primarily observed with long-term use, typically exceeding one year.

"The link between female sexual hormones, in particular progesterone, and intracranial meningioma is biologically plausible," the researchers explained. "Progesterone receptors are present in more than 60% of meningiomas and the volume of these tumors has been observed to increase during pregnancy and to decrease postpartum."³

It's important to note that not all progesterone carries the same risks. The study found no increased danger associated with natural progesterone, for instance. However, the

implications of this research are particularly alarming on a global scale.

Medroxyprogesterone acetate, one of the high-risk synthetic progestones identified, is used by 74 million women worldwide for contraception. Usage rates are especially high in low-income countries, reaching up to 8.7% of women of childbearing age. In the U.S., more than 1 in 5 sexually active women report having used this injectable contraceptive at some point.⁴

Given these numbers, the impact of this increased brain tumor risk is substantial and demands immediate attention from health care providers and patients alike. If you're currently using any of the high-risk synthetic progestones identified in this study, consider opting for safer alternatives instead.

Study Links Synthetic Progesterone with Increased Breast Cancer Risk

A large Norwegian study has also shed light on the relationship between synthetic progesterone and breast cancer risk.⁵ The research, which followed over 1.2 million women for a median of 12.7 years, found that oral and transdermal hormone therapy use was associated with an increased risk of breast cancer.

The highest risk was observed among users of oral estradiol combined with norethisterone acetate (NETA) – a type of synthetic progesterone – with risk increases ranging from 23% for less than one year of use to a 3.5-fold increase for five or more years of use.

Hormone therapy users also showed an increased risk of triple-negative breast cancer. According to the study, this may be due to progestin's ability to interact with other receptors. For instance, NETA has some affinity for the androgen receptor, which can promote certain aggressive characteristics in triple-negative breast cancer cells.⁶

Progestin can also interact through a signaling pathway involving receptor activator of nuclear factor Kappa B (RANK) ligand (RANKL), potentially stimulating breast cell

proliferation.⁷

Progestagen-Only Contraceptives: A Hidden Risk?

The use of progestagen-only contraceptives has skyrocketed in recent years. In England, prescriptions for oral progestagen-only contraceptives nearly doubled from 2010 to 2020. By 2020, there were almost as many prescriptions for these progestagen-only pills as there were for combined oral contraceptives.⁸ This shift in contraceptive use patterns has raised concerns among researchers about the potential health impacts.

A large-scale study involving 9,498 women under 50 with breast cancer has shed light on these risks.⁹ The study found that women who were prescribed oral progestagen-only contraceptives, injectable progestagens or progestagen-releasing intrauterine devices (IUDs) all faced an increased risk of breast cancer.

The risk was similar regardless of whether the contraceptive contained only progestagen or a combination of estrogen and progestagen. Women currently using or who have recently used progestagen-only contraceptives face a 20% to 30% higher risk of developing breast cancer compared to those who don't use hormonal contraceptives.

This increased risk applies across all types of progestagen-only contraceptives, including pills, injections, implants and IUDs. This challenges the assumption that lower-dose methods like hormonal IUDs might be safer. The risk of breast cancer declined after women stopped using these contraceptives, but it took five to 10 years for the risk to return to normal levels.

This suggests that the effects of synthetic progesterone on breast tissue may persist long after you stop using the contraceptive.¹⁰

While the relative increase in breast cancer risk may seem small, it's important to consider the absolute risk, especially as you age. For women in high-income countries, using oral contraceptives for five years starting at age 16 to 20 would result in about eight additional breast cancer cases per 100,000 users. However, if you start using them at age 35 to 39, this jumps to about 265 additional cases per 100,000 users.

Despite this, the U.S. Food and Drug Administration (FDA) foolishly approved the dangerous Opill (norgestrel) as an over-the-counter (OTC) daily oral contraceptive in July 2023.¹¹ **Opill is a progestin-only contraceptive pill** – the first available without a prescription in the U.S. – and reached retail pharmacies and online stores in March 2024.¹²

According to the FDA, "The most common side effects of Opill include irregular bleeding, headaches, dizziness, nausea, increased appetite, abdominal pain, cramps or bloating." However, it also acknowledges the cancer connection, noting, "Opill should not be used by those who have or have ever had breast cancer. Consumers who have any other form of cancer should ask a doctor before use."¹³

Natural Protection vs. Dangerous Synthetic Alternatives

Synthetic progestins, while having some of the activity of progesterone, do not have the same physiological effects as the endogenous progesterone produced by your body. Progesterone is one of the most beneficial hormones a person could take while the synthetic version, progestin, is one of the most dangerous.

As the primary endogenous glucocorticoid receptor antagonist, progesterone effectively blocks cortisol. It also acts as a GABA agonist and inhibits estrogen. Estrogens, including those from environmental sources like endocrine-disrupting chemicals in plastics (xenoestrogens), are major contributors to increased cancer risk.

They achieve this in part by reducing mitochondrial function. Natural progesterone counteracts these effects by blocking both estrogen and cortisol, thereby supporting mitochondrial energy production.

While progesterone is often associated with female health, particularly during pregnancy, it plays a crucial role in both sexes. In women, it's the primary female hormone with protective properties during pregnancy. In men, progesterone acts as a general regulator and protector of brain function.

Progesterone's ability to improve cellular energy production by enhancing mitochondrial function, coupled with its estrogen-blocking and cortisol-inhibiting properties, makes it a vital hormone for overall health in both men and women.

How to Use Progesterone

Before you consider using progesterone, it is important to understand that it is not a magic bullet, and that you get the most benefit by implementing a Bioenergetic diet approach that allows you to effectively burn glucose as your primary fuel without backing up electrons in your mitochondria that reduces your energy production. My new book, "Your Guide to Cellular Health: Unlocking the Science of Longevity and Joy" comes out very soon and covers this process in great detail.

Once you have dialed in your diet, an effective strategy that can help counteract estrogen excess is to take transmucosal progesterone (i.e., applied to your gums, not oral or transdermal), which is a natural estrogen antagonist. Progesterone is one of only four hormones I believe many adults can benefit from. (The other three are thyroid hormone T3, DHEA and pregnenolone.)

I do not recommend transdermal progesterone, as your skin expresses high levels of 5-alpha reductase enzyme, which causes a significant portion of the progesterone you're taking to be irreversibly converted primarily into allopregnanolone and cannot be converted back into progesterone.

Ideal Way to Administer Progesterone

Please note that when progesterone is used transmucosally on your gums as I advise, the FDA believes that somehow converts it into a drug and prohibits any company from advising that on its label. This is why companies like Health Natura promotes their progesterone products as "topical."

However, please understand that it is perfectly legal for any physician to recommend an off-label indication for a drug to their patient. In this case, progesterone is a natural

hormone and not a drug and is very safe even in high doses. This is unlike synthetic progesterone called progestins that are used by drug companies, but frequently, and incorrectly, referred.

Dr. Ray Peat has done the seminal work in progesterone and probably was the world's greatest expert on progesterone. He wrote his Ph.D. on estrogen in 1982 and spent most of his professional career documenting the need to counteract the dangers of excess estrogen with low LA diets and transmucosal progesterone supplementation.

He determined that most solvents do not dissolve progesterone well and discovered that vitamin E is the best solvent to optimally provide progesterone in your tissue. Vitamin E also protects you against damage from LA. You just need to be very careful about which vitamin E you use as most supplemental vitamin E on the market is worse than worthless and will cause you harm not benefit.

It is imperative to avoid using any synthetic vitamin E (alpha tocopherol acetate – the acetate indicates that it's synthetic). Natural vitamin E will be labeled "d alpha tocopherol." This is the pure D isomer, which is what your body can use.

There are also other vitamin E isomers, and you want the complete spectrum of tocopherols and tocotrienols, specifically the beta, gamma, and delta types, in the effective D isomer. As an example of an ideal vitamin E, you can look at the label on our vitamin E in our store. You can use any brand that has a similar label.

You can purchase pharmaceutical grade bioidentical progesterone as Progesterone Powder, Bioidentical Micronized Powder, 10 grams for about \$40 on many online stores like Amazon. That is nearly a year's supply, depending on the dose you choose.

However, you will need to purchase some small stainless steel measuring spoons as you will need a 1/64 tsp, which is 25 mg and a 1/32 tsp, which is 50 mg. A normal dose is typically 25-50 mg and is taken 30 minutes before bed, as it has an anti-cortisol function and will increase GABA levels for a good night's sleep.

Unfortunately, this vendor frequently runs out of product, and if that's the case, then you can use [Simply Progesterone by Health Natura](#). It's premixed with vitamin E and MCT oil. Again, while Health Natura states that its product is for "topical use only," I recommend applying it transmucosally, by rubbing it on your gums.

If you are a menstruating woman, you should take the progesterone during the luteal phase or the last half of your cycle, which can be determined by starting 10 days after the first day of your period and stopping the progesterone when your period starts.

If you are a male or non-menstruating woman, you can take the progesterone every day for four to six months and then cycle off for one week. The best time of day to take progesterone is 30 minutes before bed as it has an anti-cortisol function and will increase GABA levels for a good night's sleep.

This is what I have been personally doing for over a year with very good results. I am a physician so do not have any problems doing this. If you aren't a physician, you should consult one before using this therapy, as transmucosal progesterone therapy requires a doctor's prescription.

Sources and References

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