Medications, antidepressants, and steroids affecting fertility

Why medications can matter for fertility

Fertility is an integrated endocrine and reproductive function. Medicines can affect it through several pathways: altering the hypothalamic-pituitary-gonadal axis, changing prolactin or thyroid function, interfering with ovulation, affecting cervical mucus or endometrial receptivity, impairing spermatogenesis, or influencing sexual function and timing of intercourse or insemination.

In women and people with ovaries, medication effects may appear as irregular cycles, anovulation, luteal phase disruption, changes in bleeding, or altered ovarian reserve markers. In men and people producing sperm, effects may involve sperm count, motility, morphology, DNA fragmentation, testosterone production, erection, ejaculation, or libido. However, a normal cycle or normal semen analysis does not exclude all medication effects, and an abnormal result does not prove a medication is the cause.

A key clinical distinction is direct drug effect versus confounding by indication. For example, the inflammatory disease requiring corticosteroids may affect fertility independently of the steroid. Likewise, depression, pain, autoimmune activity, metabolic disease, and sleep disturbance can all affect reproductive physiology and sexual function.

Antidepressants, depression, and fertility: separating the medicine from the illness

The relationship between depression, antidepressants, and fertility is complex. Depression may influence reproductive health through hypothalamic-pituitary-adrenal axis activation, altered cortisol signaling, sleep disruption, reduced libido, inflammation, substance use patterns, weight change, and reduced frequency of intercourse. For couples using timed intercourse or assisted reproduction, depressive symptoms may also affect treatment adherence and stress burden.

Studies examining antidepressants and fertility show mixed and sometimes limited evidence. Selective serotonin reuptake inhibitors, serotonin-norepinephrine reuptake inhibitors, tricyclic antidepressants, and other agents differ pharmacologically, so they should not be treated as a single category. Some data suggest possible associations between antidepressant use and fecundability or semen parameters, while other studies emphasize that untreated depression itself may be an important contributor. The evidence is not strong enough to justify blanket discontinuation for everyone trying to conceive.

Sexual side effects are among the more practical fertility concerns. Some antidepressants may reduce libido, delay orgasm, contribute to erectile or ejaculation disorders, or make timed intercourse more difficult. These effects can be deeply frustrating but are often manageable with a prescriber’s help. Options may include dose timing, switching medication, treating sexual side effects, psychotherapy, or involving a reproductive specialist. These decisions should be individualized because relapse of depression or anxiety can be serious.

Planning pregnancy while taking antidepressants

If you are taking an antidepressant and want to conceive, the most useful step is a preconception medication review rather than abrupt discontinuation. The review should include psychiatric history, severity and recurrence of symptoms, prior relapse after stopping medication, response to non-pharmacologic therapy, reproductive timeline, other medicines, and pregnancy safety considerations.

For some people, continuing medication is the safest option. For others, a carefully supervised taper, dose adjustment, or medication switch may be reasonable. The decision depends on stability, past illness severity, medication response, and personal values. Medically literate patients often ask whether a specific antidepressant is "fertility safe"; the more accurate question is whether the overall treatment plan optimizes mental health, sexual function, conception chances, and pregnancy safety.

Bring a complete list of antidepressants tried, doses, benefits, and side effects.
Tell your clinician if libido, orgasm, erection, ejaculation, or vaginal dryness is affecting conception attempts.
Ask whether depression symptoms themselves may be influencing sleep, cycle regularity, intercourse frequency, or metabolic health.
Coordinate care between psychiatry, primary care, obstetrics-gynecology, reproductive endocrinology, or urology when needed.

Steroid medicines: corticosteroids are different from anabolic steroids

The word "steroids" can mean very different medicines. Corticosteroids, such as prednisolone, prednisone, hydrocortisone, dexamethasone, and inhaled or topical steroid preparations, are anti-inflammatory or immunosuppressive medicines used for conditions such as asthma, eczema, inflammatory bowel disease, autoimmune disease, and adrenal insufficiency. Anabolic-androgenic steroids are testosterone-like substances used medically in limited situations but also misused for muscle gain or performance enhancement.

Corticosteroids can be essential and sometimes fertility-protective when they control inflammation or autoimmune activity. Poorly controlled systemic disease may reduce fertility or increase pregnancy risk. However, long-term systemic corticosteroid use can affect metabolism, weight, blood pressure, glucose regulation, bone health, infection risk, mood, and adrenal function. These indirect effects may matter during preconception planning. In some endocrine settings, glucocorticoids can suppress excess adrenal androgens; in other contexts, unnecessary or high-dose exposure may create avoidable risk.

Anabolic-androgenic steroids are a major concern for male fertility. Exogenous

testosterone and related anabolic agents suppress gonadotropins, particularly luteinizing hormone and follicle-stimulating hormone, which can markedly reduce intratesticular testosterone and spermatogenesis. This may cause severe oligospermia or azoospermia, testicular shrinkage, reduced fertility, and hormonal symptoms. Recovery can occur after stopping, but the timeframe is variable and may take months or longer; specialist care is often needed.

Other medication groups that may affect fertility

Many non-psychiatric medications can influence reproductive function. This does not mean they should be stopped, but it does mean they should be reviewed when conception is a goal.

Hormonal medicines: Testosterone therapy, some progestins, gonadotropin-releasing hormone analogs, and anti-androgens can suppress ovulation or spermatogenesis depending on context.
Antipsychotics and dopamine-blocking drugs: Some can raise prolactin, which may disrupt ovulation, menstrual cycles, libido, and testosterone production.
Anti-seizure medications: Certain agents may interact with hormonal contraception, affect endocrine function, or require pregnancy-focused risk assessment.
Chemotherapy and some immunosuppressants: Gonadotoxicity varies widely; fertility preservation counseling may be urgent before treatment begins.
Opioids: Long-term use can suppress the hypothalamic-pituitary-gonadal axis and reduce libido, testosterone, ovulation, or sperm production.
Finasteride and other anti-androgenic agents: These may affect semen parameters or sexual function in some users, and pregnancy exposure precautions may apply.
NSAIDs: Regular use around ovulation has been associated in some contexts with luteinized unruptured follicle physiology, but occasional use is different from chronic use.

Because many of these medicines treat serious disease, a fertility plan should account for both reproductive goals and disease control. The aim is not simply fewer medicines; it is the safest effective regimen.

Male fertility considerations: sperm, hormones, and sexual function

Medication-related male fertility issues are sometimes overlooked, even though

sperm production is hormonally sensitive and takes roughly three months from early germ cell development to ejaculated sperm. A medication change made today may not be fully reflected in semen parameters for several months.

Potential red flags include new erectile difficulty, reduced libido, delayed ejaculation, anejaculation, low semen volume, testicular shrinkage, breast tenderness, fatigue, or infertility after anabolic steroid or testosterone use. A semen analysis, reproductive hormone profile, and urology or reproductive endocrinology review may be appropriate. When sexual function is the main barrier, evaluating erectile and ejaculation disorders can be as important as checking sperm count.

It is also important to avoid substituting unregulated supplements for prescribed medication. Supplements marketed for testosterone or fertility may contain undisclosed hormones or contaminants, and they can interact with prescribed treatments.

Female fertility considerations: ovulation, cycles, and implantation

In women and people with ovaries, medicines may affect fertility by changing ovulatory function, prolactin, thyroid hormone levels, insulin sensitivity, androgen levels, endometrial development, or immune and inflammatory activity. Irregular cycles, absent periods, galactorrhea, severe acne or hirsutism, rapid weight change, and pelvic pain should prompt medical evaluation rather than self-directed medication changes.

Some people worry that any medication exposure before conception will harm implantation or early pregnancy. In reality, risk depends on the medication, dose, timing, and reason for use. For example, controlling autoimmune disease before conception may improve pregnancy conditions, while stopping treatment can trigger flares. Similarly, maintaining psychiatric stability may be essential for nutrition, sleep, self-care, and prenatal planning.

If assisted reproductive technology is being considered, tell the fertility clinic about all prescriptions, over-the-counter medicines, injections, topical preparations, and supplements. Even medicines that do not directly affect eggs or sperm may matter for anesthesia, clotting risk, blood pressure, glucose control, or pregnancy planning.

How to discuss medication and fertility with clinicians

A productive conversation starts with a complete medication inventory and a clear reproductive timeline. Include prescribed drugs, over-the-counter pain relievers, antihistamines, acne treatments, hair-loss medicines, hormones, steroids, recreational substances, nicotine, cannabis, supplements, and bodybuilding products.

Useful questions include: Could any of my medicines affect ovulation, sperm, libido, erection, ejaculation, prolactin, thyroid function, or hormones? Is the underlying condition itself a fertility factor? Are there safer alternatives for preconception or pregnancy? If a change is recommended, how long should we wait before reassessing cycles or semen parameters? Who should coordinate the plan?

Do not make sudden changes to corticosteroids, antidepressants, anti-seizure medications, opioids, immunosuppressants, or hormonal therapies without a clinician’s guidance. Some require tapering; others carry relapse, withdrawal, adrenal insufficiency, seizure, flare, or psychiatric risks if stopped abruptly.