Tests to do before pregnancy

Why pre-pregnancy testing matters

The earliest weeks of pregnancy are biologically important, often before a person knows they are pregnant. Organ development begins early, and exposures such as uncontrolled hyperglycemia, certain medications, severe anemia, untreated infections, or lack of folate can matter from the beginning. Pre-pregnancy testing gives you a chance to identify and address modifiable risks before conception rather than reacting later.

That said, more testing is not always better. A medically literate approach is to ask: What clinical question will this test answer? Will the result change management? Is the test indicated based on history, examination, symptoms, ancestry, family history, or previous pregnancy outcomes? This helps avoid unnecessary anxiety, false positives, and follow-up testing that may not improve outcomes.

A typical preconception evaluation may include blood pressure measurement, body mass index assessment, review of menstrual regularity, prior pregnancy history, contraception timing, chronic conditions, medications and supplements, occupational exposures, alcohol or tobacco use, vaccination history, and family history. Laboratory testing is then selected to fit the person rather than

applied as a universal checklist.

Core tests commonly discussed before conception

Several tests are commonly reviewed at a pre-pregnancy visit because they can affect pregnancy planning, prenatal care, or early pregnancy management.

Blood type and Rh factor: Knowing whether you are Rh positive or Rh negative helps clinicians plan care if pregnancy occurs, especially if there is bleeding, pregnancy loss, procedures, or an Rh-incompatible fetus.
Complete blood count: A CBC can identify anemia, microcytosis, thrombocytopenia, or other blood cell abnormalities. Iron deficiency and hemoglobinopathies may need further assessment depending on indices and background risk.
Rubella and varicella immunity: If immunity is uncertain, blood tests may be used to check antibody status. Live vaccines, such as measles-mumps-rubella or varicella, are generally given before pregnancy when indicated, with timing advice from a clinician.
Sexually transmitted infection screening: Testing for infections such as chlamydia, gonorrhea, syphilis, HIV, and hepatitis B or C may be recommended based on age, history, local guidance, and risk factors. Treating infections before pregnancy can protect both reproductive and pregnancy health.
Cervical cancer screening: A Pap test or HPV-based screening may be done if due according to screening guidelines. This is not a fertility test, but it can avoid delays or uncertainty once pregnant.

Your clinician may also review urine symptoms, dental health, vaccination needs, and previous screening results. If recent testing is already available, repeat testing may not be necessary.

Genetic carrier screening and family history

Carrier screening looks for genetic variants that a person can carry without being affected, but that may increase the chance of having a child with a specific inherited condition if both reproductive partners carry variants in the same gene or if the condition follows an X-linked pattern. It is different from diagnostic testing and does not predict every possible genetic condition.

Common examples discussed in preconception care include screening for cystic fibrosis, spinal muscular atrophy, and hemoglobinopathies such as sickle cell disease or thalassemia. Depending on ancestry, family history, and local practice, expanded carrier screening may also be offered. If one partner is found to be a carrier, the other partner may be tested to clarify reproductive risk.

A detailed family history can be as important as the laboratory test itself. Tell your clinician about relatives with congenital anomalies, intellectual disability, recurrent pregnancy loss, stillbirth, early infant death, known genetic disorders, inherited cancers, clotting disorders, early cardiac disease, or consanguinity. This may prompt genetic counseling, which can explain inheritance patterns, residual risk, and reproductive options without pressuring you toward a particular decision.

Thyroid, diabetes, and metabolic testing

Some tests are best used selectively. Thyroid-stimulating hormone, or TSH, may be considered if you have thyroid disease, symptoms suggestive of hypo- or hyperthyroidism, infertility, irregular cycles, a history of pregnancy loss, autoimmune disease, prior thyroid surgery, neck irradiation, or use of medications that affect thyroid function. Thyroid hormone is important for ovulation and early fetal neurodevelopment, but universal preconception thyroid testing is not always recommended in every setting.

Diabetes screening may be appropriate if you have known diabetes, prediabetes, polycystic ovary syndrome, prior gestational diabetes, obesity, strong family history, or other metabolic risk factors. A hemoglobin A1c or fasting glucose may help assess glycemic status before conception. For people with established diabetes, preconception care is especially important because glycemic optimization before pregnancy is associated with lower risks of congenital anomalies and other complications. Medication adjustments should be supervised; do not stop or change diabetes medications without medical guidance.

Other metabolic assessments may include lipid evaluation, liver or kidney function tests, or urine protein testing when there is hypertension, renal disease, autoimmune disease, diabetes, or medication use that requires monitoring. These are not routine fertility tests, but they can guide safer

pregnancy planning for people with chronic conditions.

Nutritional and hematologic checks

Nutrition-related testing can be useful when symptoms, diet, medical history, or prior labs suggest deficiency. A CBC is often the starting point, but ferritin or iron studies may be considered if there is heavy menstrual bleeding, vegetarian or vegan diet, prior iron deficiency, fatigue, microcytosis, or previous pregnancy-related anemia.

Vitamin B12 and folate levels may be considered in people with vegan diets, malabsorption, bariatric surgery, inflammatory bowel disease, certain medications, or neurologic symptoms. Vitamin D testing is sometimes ordered for specific risk factors, although practices vary. The key is to avoid treating numbers in isolation and instead interpret them with clinical context.

Folic acid supplementation is a preventive step rather than a test. Many guidelines advise starting folic acid before conception to reduce the risk of neural tube defects. The standard dose commonly recommended for many people is 400 micrograms daily before pregnancy and through early pregnancy, but some individuals need a higher dose, such as those with a previous neural tube defect-affected pregnancy or certain medications. Ask a clinician which dose applies to you.

Infectious disease and vaccination-related testing

Preconception care is an opportunity to prevent infections that can complicate pregnancy. Testing may include HIV, hepatitis B, hepatitis C, syphilis, chlamydia, and gonorrhea depending on previous results and risk profile. Some clinicians also assess tuberculosis risk or other infections based on travel, occupation, immune status, or country of origin.

Immunity testing for rubella or varicella may be useful if vaccination history is unclear. If non-immune, vaccination before conception may be recommended because these infections can be serious in pregnancy. Live vaccines are usually avoided during pregnancy, so timing matters; your clinician can advise how long to wait after vaccination before trying to conceive.

Not every infection requires screening before pregnancy. For example, testing for toxoplasmosis, cytomegalovirus, or other pathogens is usually risk-based and depends on local guidelines, exposures, immune status, and clinical circumstances. Good preventive counseling, such as food safety, hand hygiene, and avoiding high-risk exposures, is often as important as lab testing.

Tests related to fertility and ovulation

If you have regular menstrual cycles and no known fertility concerns, you may not need fertility testing before trying. However, targeted evaluation may be reasonable before or soon after beginning attempts if you have irregular or absent periods, known polycystic ovary syndrome, endometriosis, prior pelvic infection, history of ovarian surgery, chemotherapy or radiation exposure, recurrent pregnancy loss, or age-related concerns.

Possible tests include pregnancy test when cycles are absent, TSH and prolactin for ovulatory disorders, androgen testing when hyperandrogenism is suspected, and ovarian reserve markers such as anti-Mˆ…llerian hormone or antral follicle count in selected contexts. These tests have limitations: ovarian reserve tests do not reliably predict natural conception in all individuals, and they should not be interpreted as a simple "fertility score."

For male partners, semen analysis is often the first-line fertility test when pregnancy is taking longer than expected or when there are risk factors such as prior testicular surgery, varicocele, chemotherapy, anabolic steroid use, or known reproductive tract issues. Fertility evaluation is most effective when both partners are considered, rather than placing the burden only on the person who will carry the pregnancy.

How to prepare for a pre-pregnancy testing appointment

Before your visit, gather information that helps your clinician choose the right tests. Bring a medication and supplement list, including acne treatments, migraine medicines, psychiatric medications, antiseizure drugs, antihypertensives, herbal products, and over-the-counter medicines. Some medications are compatible with pregnancy, some require dose changes, and some may need safer alternatives before conception. Medication changes should always be supervised.

It also helps to bring vaccination records, recent lab results, details of previous pregnancies or miscarriages, menstrual cycle patterns, contraception history, and family history from both sides if available. If you have a chronic condition, ask whether your disease activity, organ function, or medication monitoring should be optimized before trying to conceive.

Finally, discuss timing. Some vaccines, medication changes, genetic screening workflows, or specialist referrals take weeks to months. Preconception care is ideally done before you start trying, but it is still valuable if you have already begun or have just found out you are pregnant.