Preconception planning overview

What preconception planning means

Preconception planning is a structured review of factors that could influence fertility, pregnancy, fetal development, and long-term parental health. It may occur in obstetrics and gynecology, family medicine, internal medicine, pediatrics for adolescents, reproductive endocrinology, genetics, psychiatry, or other specialty settings.

Clinically, it usually includes three overlapping goals: identifying risks, improving health before conception, and ensuring that any interventions are compatible with pregnancy. This might mean updating immunizations, changing a medication that is unsafe in pregnancy, improving glycemic control, treating iron deficiency, reviewing occupational exposures, or discussing pregnancy spacing after a prior birth.

Importantly, preconception care is not only for people who are actively trying to conceive. Because many pregnancies are unplanned, professional organizations encourage clinicians to ask about reproductive goals during routine care and to offer pregnancy-related counseling when relevant.

The preconception visit: what is usually reviewed

A comprehensive preconception visit is individualized, but it often begins with a detailed history. The clinician may ask about menstrual cycles, contraception, prior pregnancies, miscarriages, preterm birth, cesarean delivery, hypertensive disorders of pregnancy, gestational diabetes, congenital anomalies, infertility history, sexually transmitted infections, and gynecologic conditions such as endometriosis or polycystic ovary syndrome.

Medical history is equally important. Conditions such as diabetes, hypertension, thyroid disease, epilepsy, kidney disease, autoimmune disease, thrombophilia, obesity, eating disorders, depression, anxiety, substance use disorder, and cardiac disease may require optimization before pregnancy. A medication review should include prescriptions, over-the-counter drugs, supplements, herbal products, acne treatments, migraine therapies, antiseizure medicines, psychiatric medications, antihypertensives, anticoagulants, and weight-loss medications.

Family history may identify inherited disorders, recurrent pregnancy loss, intellectual disability, birth defects, hemoglobinopathies, thrombosis, early cardiovascular disease, or consanguinity. Social history can reveal barriers and supports, including intimate partner violence, housing or food insecurity, access to transportation, workplace hazards, caregiving responsibilities, and the ability to attend medical appointments.

Folic acid, nutrition, and weight-related considerations

Folic acid is one of the clearest preconception interventions. Adequate folate status before conception and in early pregnancy reduces the risk of neural tube defects. Many public health recommendations advise a daily supplement containing folic acid for people who could become pregnant, although the appropriate dose may differ for those with a prior neural tube defect-affected pregnancy, certain antiseizure medications, malabsorption, or other risk factors. A clinician can help determine the right approach.

Nutrition planning is less about restrictive dieting and more about adequacy, safety, and metabolic stability. A balanced dietary pattern usually emphasizes vegetables, fruits, whole grains, legumes, nuts, dairy or fortified alternatives, lean protein sources, and healthy fats. Clinicians may screen for

anemia, vitamin D deficiency, disordered eating, food insecurity, or gastrointestinal conditions that impair nutrient absorption.

Body weight can influence ovulation, insulin resistance, pregnancy complications, anesthesia risk, and fetal outcomes, but conversations about weight should be respectful and clinically focused. For some people, modest weight change, improved physical activity, or treatment of metabolic conditions may be helpful before pregnancy. For others, the priority may be nutritional rehabilitation, stabilization of an eating disorder, or avoiding harmful dieting while trying to conceive.

Medications and chronic conditions

Medication safety is a central part of preconception planning. Some medications are compatible with pregnancy, some require dose adjustments or monitoring, and others are teratogenic or otherwise unsafe. People should not stop essential medications abruptly, particularly those used for seizures, mood disorders, hypertension, anticoagulation, autoimmune disease, thyroid disease, or diabetes. The safest plan is usually coordinated between the prescribing clinician and an obstetric or maternal-fetal medicine professional when risk is complex.

Diabetes is a classic example of why planning matters. Hyperglycemia around conception is associated with increased risk of congenital anomalies and pregnancy complications, so optimizing glycemic control before pregnancy can be highly beneficial. Similarly, hypertension management may require switching from medications that are not recommended in pregnancy to alternatives considered safer under medical supervision.

For thyroid disease, clinicians may check thyroid-stimulating hormone and adjust treatment because thyroid hormone needs can change early in pregnancy. For epilepsy, the goal is to minimize seizure risk while using the safest effective regimen and ensuring appropriate folic acid counseling. For psychiatric conditions, the discussion should balance fetal medication exposure with the substantial risks of untreated depression, bipolar disorder, anxiety, psychosis, or substance use disorder.

Immunizations, infections, and screening

Preconception care provides an opportunity to review immunization status before pregnancy. Immunity to rubella and varicella is especially relevant because live vaccines are generally avoided during pregnancy and should be given before conception when indicated, with appropriate timing guidance from a clinician. Influenza and COVID-19 vaccination recommendations may also be reviewed based on current public health guidance and individual risk.

Infection-related planning may include screening for sexually transmitted infections when indicated, HIV testing, hepatitis B and C assessment, tuberculosis risk evaluation, and counseling about toxoplasmosis, cytomegalovirus, listeria, and travel-related infections. People planning pregnancy should discuss travel to areas with mosquito-borne infections or other emerging infectious risks before conception.

Dental care also belongs in preconception planning. Periodontal disease, untreated caries, and oral infections can worsen during pregnancy, and dental evaluation before conception may reduce discomfort and avoid urgent procedures later. Routine dental treatment is often possible during pregnancy, but prevention and early care are still valuable.

Lifestyle, substances, and environmental exposures

Lifestyle counseling should be realistic and nonjudgmental. Smoking, vaping nicotine, cannabis, alcohol, and nonmedical drug use can affect fertility, pregnancy outcomes, fetal growth, and neonatal health. Because there is no established safe amount of alcohol during pregnancy, people planning pregnancy are generally encouraged to avoid alcohol when trying to conceive or once pregnancy is possible. Those who use substances regularly deserve supportive, evidence-based help rather than stigma.

Physical activity is usually beneficial before pregnancy unless a clinician recommends restrictions. Regular moderate activity can improve cardiometabolic health, mood, sleep, and weight stability. Sleep quality and shift work may also matter, particularly for people with irregular cycles, mood disorders, or high stress.

Environmental and occupational exposures should be reviewed when relevant.

Examples include lead, mercury, pesticides, solvents, radiation, anesthetic gases, high heat exposure, and physically demanding work. People who handle chemicals, work in laboratories, agriculture, manufacturing, salons, veterinary settings, radiology, or healthcare may need workplace-specific guidance.

Genetic, age-related, and fertility planning

Carrier screening and genetic counseling may be offered before pregnancy, especially for people with a family history of inherited disease, recurrent pregnancy loss, prior affected child, known carrier status, certain ancestries associated with higher carrier frequencies, or consanguinity. Screening may include conditions such as cystic fibrosis, spinal muscular atrophy, hemoglobinopathies, or expanded carrier panels, depending on clinical context and patient preferences.

Age is another important variable. Fertility generally declines with increasing age, and the risk of miscarriage and chromosomal aneuploidy rises. This does not mean pregnancy is impossible after a certain age, but it may influence timing, evaluation, and whether to discuss fertility preservation or earlier referral to a fertility specialist.

For many couples, conception can take several months even when timing and reproductive health are normal. However, earlier evaluation is often appropriate for people with irregular or absent periods, known endometriosis, prior pelvic infection, chemotherapy or radiation exposure, recurrent miscarriage, suspected male factor infertility, or age-related concerns. Partner health matters too; semen quality can be affected by smoking, anabolic steroids, heat exposure, certain medications, infections, and chronic disease.

Mental health, relationships, and social support

Pregnancy planning can bring hope, pressure, grief, excitement, and uncertainty. Mental health care is not an optional extra; it is part of reproductive health. Preconception planning may include screening for depression, anxiety, bipolar disorder, trauma, eating disorders, substance use, and intimate partner violence. It can also include a safety plan, therapy referral, medication review, or coordination with psychiatry.

Relationship and practical supports matter as well. People may need to discuss parental leave, finances, insurance coverage, transportation, childcare for existing children, cultural expectations, and family support. These factors do not determine whether someone deserves pregnancy, but they can influence stress, access to care, nutrition, and safety.

For people who have experienced infertility, pregnancy loss, stillbirth, preterm birth, severe preeclampsia, traumatic birth, or neonatal illness, preconception visits can be emotionally complex. A supportive clinician can review previous records, explain recurrence risks when known, and develop a plan for monitoring and emotional support in a future pregnancy.