

First Trimester of Pregnancy



Highlights

Covers weeks 1 through 12-13 of pregnancy, counted from the last menstrual period, not the date of conception.

Early pregnancy is a critical phase when the baby's organs and systems begin forming and the placenta develops.

Includes information on maternal body changes, nutrition, lifestyle adjustments, risks, and medical checkups.

Practical guidance on what to avoid, healthy eating, vitamins, rest, and emotional well-being.

Describes possible complications, recommended tests, and useful preventive measures.

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What Defines the First Trimester?

The first trimester spans from week 1 to week 12-13 of pregnancy. The gestational age is calculated from the first day of the last menstrual period, which means that conception usually occurs about two weeks later. This phase is considered one of the most important in pregnancy, as the foundation of all vital organs, tissues, and the placenta is established.

Key Weeks of the First Trimester

Weeks included: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13. Each week is associated with distinct changes in both the mother's body and the baby's development.

Changes in the Mother's Body

Menstrual changes: The absence of menstruation is the primary sign. Some may experience light spotting, which can delay pregnancy recognition until later.

Frequent urination: Caused by the enlarging uterus pressing on the bladder.

Digestive changes: Progesterone reduces intestinal muscle tone, sometimes leading to constipation. A high-fiber diet, hydration, and fermented dairy products help relieve symptoms.

Breast changes: Breasts may feel heavier, more sensitive, and nipples can darken in preparation for breastfeeding.

Fatigue: Hormonal adjustments cause tiredness; adequate rest and 10 hours of night sleep are recommended.

Dizziness or faintness: Linked to lower blood pressure and increased uterine blood supply; light physical activity helps circulation.

Morning sickness: Nausea, vomiting, and loss of appetite are common and usually subside by week 12-13.

Early Symptoms and Challenges

Nausea and vomiting (toxicosis).
Increased salivation.
Heightened fatigue and mood changes.
Occasional dizziness due to low blood pressure.
Emotional sensitivity due to hormonal changes.

Fetal Development in the First Trimester

Week 4: The embryo measures about 0.36-1 mm.
Week 5-6: Development of the heart, blood vessels, and nervous system begins.
Week 7-8: Limb buds, facial features, and inner organs start forming.
Week 9-10: Tooth buds appear, the embryo is surrounded by protective amniotic fluid.
Week 11-12: External genitalia and eye color traits become more visible.
Week 13: All major systems are formed; growth and strengthening continue.

Medical Tests and Screenings

After pregnancy confirmation, early prenatal care includes:

General blood and urine analysis.
Vaginal microflora test.
Determining blood type and Rh factor.
Testing for HIV, hepatitis B and C, syphilis, rubella, toxoplasmosis, CMV, HSV.
Coagulation profile and ECG.
Ultrasound scans of the fetus and pelvic organs.
First-trimester screening: hormonal markers (hCG and PAPP-A).

Specialists may recommend additional consultations with ophthalmologists, neurologists, dentists, ENT doctors, endocrinologists, or therapists.

Possible Risks and How to Reduce Them

Risks in the first trimester include:

Ectopic pregnancy.
Miscarriage or pregnancy loss.
Congenital anomalies due to genetic or environmental factors.

Hormonal imbalance leading to uterine hypertonicity.

Preventive measures:

Pre-pregnancy medical checkups.
Intake of folic acid and prenatal vitamins.
Regular gynecological visits.
Adequate rest (10 hours of night sleep).
Outdoor walks and balanced nutrition.

Nutrition and Vitamins

Eating pattern: Small meals every 3-4 hours, using gentle cooking methods (steaming, baking).

Diet composition: Fresh fruits, vegetables, whole grains, lean meats, dairy, healthy fats.

Hydration: At least 1.5 liters of fluid per day (water, herbal teas, natural juices).

To limit or avoid: Highly processed foods, preservatives, allergens (citrus, chocolate, strawberries), overly spicy or fatty foods.

Key micronutrients:

Folic Acid (B9): Prevents neural tube defects, supports placenta development.

Vitamin A (Retinol): Important for cell division; excess may be harmful.

Vitamin E (Tocopherol): Supports hormone balance and skin elasticity.

Iodine: Essential for thyroid hormones, skeletal development, and cognitive function.

Lifestyle Recommendations and Restrictions

Avoid during the first trimester:

Smoking and secondhand smoke.
Alcohol consumption.
Stress, sleep deprivation, and heavy physical strain.
X-ray diagnostics unless strictly necessary.
Taking medications without medical approval.

Safe physical activity, stress reduction, and emotional support from close ones are strongly encouraged.

Additional Considerations

Sexual activity: Generally safe if pregnancy is progressing normally.

Restrictions may be given by healthcare providers if risks are identified.

Cold and infections: It is important to avoid crowded places during flu season and consult doctors before taking any medications.

Dental care: Dental treatment is best completed before pregnancy to avoid the need for anesthesia.

Tools and Assistance

Medical Support: Regular gynecological checkups, blood and urine tests, ultrasound scans, and screenings.

Professional Referrals: Consultations with specialists such as ophthalmologists, endocrinologists, neurologists, and dentists if needed.

Nutritional Guidance: Tailored dietary advice including folic acid, vitamin intake, and hydration.

Practical Recommendations: Checklists of what to avoid, safe physical activity, rest schedules, and stress management tips.

Educational Resources: Week-by-week guides to physical changes and fetal development.

Emotional Support: Sharing experiences with other parents, stress-reduction practices, and maintaining a positive family atmosphere.