

**HYGIENE AND NUTRITION DURING PREGNANCY: IMPLICATIONS FOR  
MATERNAL AND FETAL HEALTH**

**Urazimbetova Nazira Saburovna**

Senior teacher in Obstetrics and Gynecology Department

Nukus Abu Ali ibn Sino Public Health Technical School

**Abstract.** Pregnancy is a critical physiological period characterized by profound metabolic, immunological, and hormonal changes. Adequate personal hygiene and proper nutrition during pregnancy play a pivotal role in maintaining maternal well-being and ensuring optimal fetal growth and development. This article reviews current scientific evidence on hygiene practices and dietary habits during pregnancy, highlighting their impact on the prevention of infections, reduction of pregnancy-related complications, and promotion of favorable perinatal outcomes.

**Keywords:** pregnancy, hygiene, nutrition, maternal health, fetal development, prenatal care

**Introduction.** Pregnancy represents a unique biological state in which maternal health directly influences fetal outcomes. According to the World Health Organization, a significant proportion of maternal and neonatal morbidity and mortality worldwide is associated with preventable factors, including inadequate hygiene and poor nutrition. Physiological adaptations during pregnancy increase susceptibility to infections and nutritional deficiencies, making targeted preventive strategies essential.

Hygiene and dietary practices are modifiable determinants of health that can significantly reduce the risk of obstetric complications such as anemia, gestational diabetes mellitus, hypertensive disorders, urinary tract infections, and intrauterine growth restriction. Understanding the scientific basis of these practices is therefore crucial for clinicians and public health professionals.

Pregnancy induces changes in immune function, gastrointestinal motility, renal physiology, and skin integrity. Mild immunosuppression increases vulnerability to bacterial, viral, and fungal infections, while altered metabolism elevates nutritional demands for macro- and micronutrients. These changes underscore the importance of enhanced hygiene measures and balanced dietary intake throughout gestation.

Maintaining personal hygiene is essential for preventing infections that may adversely affect pregnancy outcomes. Regular bathing with mild, non-irritating cleansers helps reduce microbial colonization of the skin. Special attention should be given to perineal hygiene to prevent vulvovaginal infections, which are associated with preterm labor and premature rupture of membranes.

Pregnancy increases energy requirements, particularly during the second and third trimesters. However, the concept of “eating for two” is a misconception. Instead, emphasis should be placed on nutrient-dense foods rather than excessive caloric intake. Adequate protein intake supports fetal tissue growth, while balanced carbohydrates and healthy fats provide essential energy and support neurodevelopment.

Micronutrient deficiencies remain a global concern in maternal health. Iron, folic acid, iodine, calcium, vitamin D, and zinc are particularly important during pregnancy. Folic acid supplementation before conception and during early pregnancy significantly reduces the risk of neural tube defects. Iron is essential for preventing maternal anemia and supporting fetal oxygenation. Calcium and vitamin D contribute to skeletal development and reduce the risk of hypertensive disorders.

Poor hygiene and inadequate nutrition often coexist and synergistically increase the risk of infection. Nutritional deficiencies impair immune function, while infections exacerbate nutrient loss and metabolic stress. Integrated interventions that address both hygiene and nutrition are therefore more effective in improving maternal and fetal outcomes than isolated measures.

**Conclusion.** Hygiene and nutrition during pregnancy are fundamental determinants of maternal and fetal health. Adherence to proper hygiene practices and balanced dietary intake significantly reduces the risk of infections, nutritional deficiencies, and pregnancy-related complications. Integrating these elements into comprehensive prenatal care is essential for optimizing pregnancy outcomes and promoting the health of future generations.

#### **References.**

1. World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization; 2016.
2. World Health Organization. Nutrition advice for pregnant women. Geneva: WHO; 2020.
3. American College of Obstetricians and Gynecologists. Nutrition During Pregnancy. ACOG Practice Bulletin No. 156. *Obstet Gynecol.* 2015;126(6):e12–e24.
4. Black RE, Victora CG, Walker SP, et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet.* 2013;382(9890):427–451.
5. Scholl TO. Maternal nutrition before and during pregnancy. In: Nestle Nutr Inst Workshop Ser. 2015;74:69–83.
6. Institute of Medicine (US) and National Research Council (US). *Weight Gain During Pregnancy: Reexamining the Guidelines.* Washington (DC): National Academies Press; 2009.
7. Han YW. Oral health and adverse pregnancy outcomes—what’s next? *J Dent Res.* 2011;90(3):289–293.
8. Offenbacher S, Katz V, Fertik G, et al. Periodontal infection as a possible risk factor for preterm low birth weight. *J Periodontol.* 1996;67(10 Suppl):1103–1113.