Eureka Open Access Journals
Open Access | Peer Reviewed | International Journals | Multidisciplinary Areas

Eureka Journal of Health Sciences & Medical Innovation (EJHSMI)

ISSN 2760-4942 (Online) Volume 2, Issue 1, January 2026

https://eurekaoa.com/index.php/5

ANEMIA IN PREGNANT WOMEN

Isroilova Anora Muxammadjonovna
Republican Center for Advanced Training and Specialization of Secondary Medical and Pharmaceutical Personnel, Samarkand Branch

Abstract

Anemia is a common hematological disorder among pregnant women, posing significant risks to both maternal and fetal health. During pregnancy, increased iron requirements, nutritional deficiencies, and chronic medical conditions can lead to reduced hemoglobin levels, resulting in maternal fatigue, weakness, and increased vulnerability to infections. For the fetus, anemia may cause intrauterine growth restriction, preterm birth, low birth weight, and perinatal mortality. This article provides an overview of the etiology, risk factors, clinical manifestations, diagnostic methods, and management strategies for anemia in pregnancy. Early detection, proper nutritional support, iron supplementation, and appropriate medical interventions are crucial for preventing adverse outcomes and ensuring the health of both mother and child.

Keywords: Anemia, pregnancy, maternal health, fetal development, iron deficiency, hemoglobin, nutritional deficiency, prenatal care, maternal complications, fetal outcomes/

Introduction

Anemia is one of the most common hematological disorders affecting pregnant women worldwide. During pregnancy, blood volume increases to meet the oxygen and nutrient demands of the developing fetus. Insufficient intake or absorption of essential nutrients such as iron, folate, and vitamin B12 can lead to reduced hemoglobin levels and maternal anemia.Maternal anemia has significant

Eureka Open Access Journals
Open Access | Peer Reviewed | International Journals | Multidisciplinary Areas
Eureka Journal of Health Sciences & Medical Innovation (EJHSMI)
ISSN 2760-4942 (Online) Volume 2, Issue 1, January 2026

https://eurekaoa.com/index.php/5

consequences for both the mother and the fetus. Women may experience fatigue, weakness, pallor, dizziness, and increased susceptibility to infections. For the fetus, maternal anemia can cause intrauterine growth restriction, preterm birth, low birth weight, and perinatal mortality. Iron deficiency anemia is the most prevalent type during pregnancy, although folate and vitamin B12 deficiencies may also contribute.

Early detection, routine prenatal screening, nutritional support, and timely treatment are critical for preventing complications and ensuring optimal maternal and fetal outcomes.

Etiology.The primary causes of anemia during pregnancy include:

1. Iron deficiency – due to increased maternal iron requirements for fetal growth and placental development.
2. Folate deficiency – essential for red blood cell formation; inadequate intake can result in megaloblastic anemia.
3. Vitamin B12 deficiency – impairs red blood cell production and may coexist with folate deficiency.
4. Chronic medical conditions – such as kidney disease or hemolytic disorders, which affect red blood cell production or lifespan.
5. Genetic disorders – including thalassemia or sickle cell disease, which can lead to chronic anemia.

Risk Factors.Several factors increase the risk of developing anemia during pregnancy:

- Multiple pregnancies or closely spaced pregnancies
- Poor dietary intake or malnutrition
- Gastrointestinal disorders affecting nutrient absorption
- Heavy menstrual bleeding prior to pregnancy
- Chronic infections or inflammatory conditions

Clinical Manifestations.Common signs and symptoms of anemia in pregnant women include:

Eureka Open Access Journals
Open Access | Peer Reviewed | International Journals | Multidisciplinary Areas
Eureka Journal of Health Sciences & Medical Innovation (EJHSMI)
ISSN 2760-4942 (Online) Volume 2, Issue 1, January 2026

https://eurekaoa.com/index.php/5

- Fatigue and generalized weakness
- Pallor of skin and mucous membranes
- Dizziness and lightheadedness
- Shortness of breath and palpitations
- Increased susceptibility to infections

Fetal complications may include intrauterine growth restriction, preterm delivery, low birth weight, and, in severe cases, perinatal mortality.

Diagnosis**.**Anemia in pregnancy is typically diagnosed using:

- Complete blood count (CBC) – to assess hemoglobin, hematocrit, and red blood cell indices
- Serum ferritin and iron studies – to detect iron deficiency
- Folate and vitamin B12 levels – to identify nutritional deficiencies
- Peripheral blood smear – to evaluate red blood cell morphology
- Additional tests – as needed, for underlying chronic or genetic conditions

Anemia during pregnancy can be classified based on the underlying cause and severity:

1. Iron Deficiency Anemia (IDA)

This is the most common type of anemia in pregnancy and is primarily caused by insufficient iron intake to meet the increased demands of maternal blood volume expansion and fetal growth. Hemoglobin levels typically fall below 11.0 g/dL in the first and third trimesters and below 10.5 g/dL in the second trimester. Iron deficiency can lead to decreased oxygen delivery to tissues, contributing to maternal fatigue and adverse perinatal outcomes.

2. Megaloblastic Anemia

This form of anemia results from deficiencies in folate or vitamin B12. Folate requirements increase substantially during pregnancy due to rapid tissue growth, and inadequate intake can impair DNA synthesis in developing red blood cells.

Eureka Open Access Journals
Open Access | Peer Reviewed | International Journals | Multidisciplinary Areas

Eureka Journal of Health Sciences & Medical Innovation (EJHSMI)

ISSN 2760-4942 (Online) Volume 2, Issue 1, January 2026

https://eurekaoa.com/index.php/5

Megaloblastic anemia is associated with neural tube defects when folate deficiency occurs early in pregnancy.

3. Hemoglobinopathies

Genetic disorders such as thalassemia and sickle cell disease can contribute to chronic anemia in pregnant women. These conditions affect the structure or production of hemoglobin and often require specialized prenatal management due to potential complications.

References

1. Ariela Marshall & Jean M. Connors — Anemia in Pregnancy
2. Robert T. Means Jr. — Nutritional Anemia during Pregnancy
3. Christina Oppenheimer & Paul Sharpe — The Obstetric Hematology Manual.
4. Panos Antsaklis, Maria Papamichail, George J. Daskalakis & Aris J. Antsaklis — Haemoglobinopathies in Pregnancy
5. Ixtiyarova G. A. — Akusherlikda hamshiralik ishi
6. Ya. N. Allayorov & F. Q. Asqarova — Akusherlik va ginekologiyada hamshiralik ishi
7. Toshpo‘latova N. & Qodirova M. — Homiladorlikda kamqonlik va uning oldini olish.