



## Nutritional Insufficiency in Mothers and Its Impact on Neonatal Infants

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### DESCRIPTION

Vitamin deficiency in pregnancy is a common problem that can have serious consequences for both the mother and the infant. One of the most important vitamins for bone health is vitamin D, which helps the body absorb calcium and phosphorus from food [1]. Vitamin D deficiency can lead to rickets, a condition that causes softening and weakening of bones in children. Rickets can manifest in infants as young as three months and continue to affect individuals through adolescence. It can occur in infant who lack vitamin D, or who have problems using vitamin D properly due to an underlying health condition, such as celiac disease, cystic fibrosis, inflammatory bowel disease, or kidney problems [2,3]. Rickets can also result from a lack of calcium or phosphorus in the diet, or from certain medications that interfere with vitamin D metabolism. The signs and symptoms of rickets can vary depending on the severity and the cause of the condition. Some of the common signs and symptoms include:

- Delayed growth and development
- Bone pain, especially in the spine, pelvis, legs, and ribs
- Muscle weakness and cramps
- Skeletal deformities, such as bowed legs, knock knees, thickened wrists and ankles, breastbone projection, and soft skull
- Dental problems, such as delayed eruption of teeth, enamel defects, and increased risk of cavities
- Fractures after minor trauma or falls
- Increased susceptibility to infections
- Irritability and fussiness

Rickets can have long-term effects on the health and well-being of children. It can impair their physical growth and stature, as well as their cognitive and motor skills [4]. It can also increase the risk of osteoporosis, osteomalacia, and other bone diseases later in life [5]. The prevention and treatment of rickets depend on the cause and the risk factors of the condition. The following strategies can help prevent or treat rickets in infant:

- Infant who are breastfed only need a daily dose of 400 IU (10 mcg) of vitamin D from the time they are born until they start eating other foods or drink at least 1 liter of formula per day. infant who have trouble with vitamin D absorption or metabolism may need more vitamin D or a different type of vitamin D from their doctor [6].
- Infants should also get some sunlight every day harm their skin. The amount of sunlight they need depends on their skin color, the season, the place, and the time of day. Usually, 15 to 30 minutes of sun exposure is needed for most infant [7].

Infants should eat foods that are rich in calcium, phosphorus, and vitamin D to prevent or treat rickets. Some of the natural sources of vitamin D are fatty fish, egg yolks, liver, and cheese [8]. Some of the foods that are fortified with vitamin D are milk, cereal, yogurt, and orange juice. Some of the foods that are high in calcium are dairy products, green leafy vegetables, nuts, seeds, and tofu [9,10]. Some of the foods that are high in phosphorus are meat, poultry, fish, eggs, beans, lentils, and whole grains. Infants who have medical conditions that affect their vitamin D absorption or metabolism should receive appropriate treatment for their condition. This may include medications, dietary supplements, or other interventions as recommended by a doctor.

### CONCLUSION

Infants who have severe bone deformities due to rickets may need surgery to rectify them. Surgery can help improve the appearance and function of the affected bones and joints. Vitamin deficiency in pregnancy can have serious consequences for both the mother and the infant. Pregnant women can protect their own health and their baby's health by ensuring adequate intake and exposure to vitamin D, as well as calcium and phosphorus. If rickets occurs in infants, early diagnosis and treatment can help prevent complications and improve outcomes.

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