



# Preconception Health: The Role of Nutrition

AN ASPHN BRIEF - 2015

**P**reconception and Interconception Health<sup>1</sup> refer to the state of a woman's health before and between pregnancies. Preconception and interconception health care is a set of interventions to identify and modify biomedical, behavioral

and social risks to a woman's health or pregnancy outcome through prevention and management. The goal of the care is to promote the current and future wellbeing of the woman and enhance the health of any future pregnancy and child.



## Why Preconception/Interconception Care and Health Matters

- A woman's health during her reproductive years influences her overall wellbeing.
- A woman's health and wellness habits will directly influence those of her family.
- A woman's health directly affects the wellbeing of any children she may have.
- A woman who enters pregnancy at a healthy weight may have a reduction in poor maternal-fetal outcomes and decreased lifelong risk for chronic diseases for both the mother and child.
- A woman who retains weight gained during pregnancy is at increased risk of obesity, chronic diseases including diabetes or insulin resistance, and has a higher risk of postpartum depression.
- Babies born at either low or high birth weights are at risk for lifelong chronic disease and obesity.
- Babies born to women who experience preconception health care should be less likely to be premature, low or high birthweight, have a birth defect or other disabling condition.



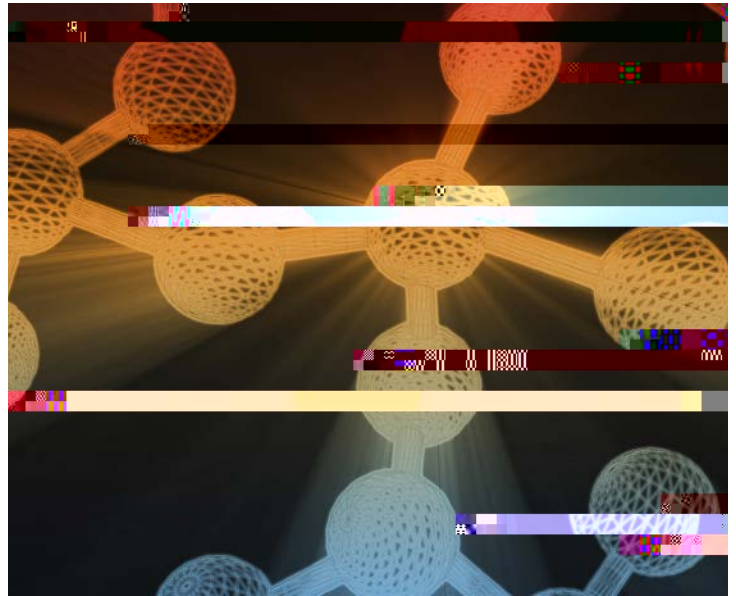
---

---

---

## Preconception Health: The Role of Nutrition

---



There is an intergenerational effect where the health of one generation affects the health of the next. Maintaining a woman's health prior to and between pregnancies is entirely consistent with this approach, recognizing that the health of the mother and child cannot totally be separated. While interconception care is traditionally viewed as short-term, LCT treats this time frame as open-ended beginning with the end of one pregnancy and ending only after the next conception has been diagnosed or the woman is no longer able to conceive.

### Fetal Origin Hypothesis

The **Fetal Origins Hypothesis** (also known as the Barker Hypothesis) amplifies the importance of nutrition throughout the life course of a woman and her child. Evidence links adverse exposures in early life to chronic disease susceptibility in adulthood. Nutrition is a major intrauterine environmental factor that alters expression of the fetal genome and may have lifelong consequences. These changes may result in increased incidence of certain

---

## Preconception Health: The Role of Nutrition

---

---

---

•

# Preconception Health: The Role of Nutrition



The role of nutrition in chronic illness such as diabetes or hypertension must be addressed.

been shown in several studies to be at increased risk for adverse maternal and neonatal outcomes, and association with excessive gestational weight gain and postpartum weight retention. This is particularly true among women who are Black as well as from low socio-economic status backgrounds. Short interconception spacing, combined with high gestational weight gain, and four or more births are associated with risk of obesity.<sup>25, 26, 27, 29, 29</sup>

## Nutrition and Existing Health Condition

The role of nutrition in chronic illness such as diabetes or hypertension must also be addressed. Women under medical care for chronic conditions such as diabetes, hypertension and metabolic syndrome often require medical nutrition therapy as part of their preconception and pregnancy clinical care. Acute conditions such as anemia are treated with diet and medication. Other conditions, like epilepsy and HIV infection, require medications that may alter nutritional status. Some high-risk pregnancy conditions like preterm birth, gestational diabetes or hypertension may reoccur in subsequent pregnancies. Several of these adverse health conditions have a nutrition component, which should be addressed between subsequent pregnancies.



## Summary

Diet, quality, health, weight and medical nutrition therapy (for women with existing health condition) are important components of preconception care, a healthy women's health and long-term health and family well-being. Preconception nutrition topics include: eating pregnancy, a healthy weight, diet, quality, and the use of folic acid. Postpartum nutrition topics include: eating a healthy weight, diet, quality, and postpartum feeding. Medical nutrition therapy must also be provided as part of the care for certain health conditions.



# What Public Health Nutrition Can Do to Support Preconception Care





---

---

WIC services can be adapted to reflect an interconception approach that is culturally appropriate. Postpartum care is routine in WIC and by adopting a broader interpretation,



---

<sup>1</sup>Minnesota Department of Health.  
Preconception and Interconception  
Health page. <http://www.health.state.mn.us/divs/fh/mch/preconception>.  
Retrieved April 2015.

<sup>2</sup>Moos, MK, Bandura, M Posner SF, Lu  
MC. Chapter 5: Quality Improvement