

## MONTHLY MEMO:

# ESSENTIAL NUTRITION FOR WOMEN'S HEALTH

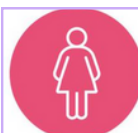


## Overview

This memo covers essential nutrition for women's health, covering topics like daily caloric needs, iron and calcium intake, vitamin supplementation, and prenatal nutrition.

## How many calories do women need?

Determining the appropriate daily caloric intake for women involves considering factors such as age, weight, height, activity level, and overall health. On average, women require about 2,000 calories per day to maintain their weight and approximately 1,500 calories per day to lose one pound per week. To estimate individual caloric needs, the Basal Metabolic Rate (BMR) can be calculated using the Mifflin-St Jeor equation:



**WOMEN**

**BMR =**  
 $(4.536 \times \text{weight in lbs})$   
 $+ (15.88 \times \text{height in inches})$   
 $- (5 \times \text{age}) - 161$

This BMR value is then multiplied by an activity factor to determine the Total Daily Energy Expenditure (TDEE). However, it's important to recognize that such formulas have limitations and may not account for individual variations in metabolism and body composition. Any caloric target acquired from a formula should be used as a starting place/estimate, rather than a prescription for how much one should consume.

Factors like stress, sleep quality, hormonal fluctuations, and certain medications can influence metabolism and weight management, making the "calories in, calories out" model an oversimplification for some individuals. Given these complexities, it's advisable for women to consult with healthcare providers or registered dietitians to receive personalized guidance tailored to their unique needs and health goals.

## IMPORTANT:

Body mass index (BMI) is a population-level measure. Healthy bodies exist above healthy weight range set by the BMI scale, particularly for those with significant muscle mass.

## Calcium

Many young women consume less than the recommended amount of calcium, which is essential for bone health. While supplements can help, research suggests they may increase the risk of cardiovascular disease in women. Because of this, doctors recommend obtaining calcium from food sources rather than supplements unless necessary. Dietary sources include dairy, leafy greens, and fortified foods. While calcium itself is not harmful, relying on dietary sources may better support both bone and heart health.

## Nutrition During Pregnancy

Nutrition is a key component for healthy growth in a fetus while maintaining the health of the mother. When a person becomes pregnant, eating for two doesn't necessarily mean eating twice as much food content. For example, the Mayo Clinic suggests that during the first trimester, a person doesn't need to eat more calories each day. During the second trimester, a 340-calorie increase, and a 450-calorie increase during the third, helps to support the healthy growth of a fetus and mother.

Certain nutrients are especially important to consume during pregnancy. Calcium helps to grow the baby's bones and teeth. Proper vitamin D intake allows for calcium absorption and the development of healthy eyesight. Taking folic acid or folate before and during pregnancy supports proper development of the placenta and prevents early problems in neural tube development. Folic acid is a common nutrient in prenatal vitamins.

Prenatal vitamins help supplement vitamins and minerals vital to healthy pregnancies. Iron, folic acid, DHA (an essential omega-3 fatty acid for brain development), calcium, and iodine are major components of prenatal vitamins. Taking prenatal vitamins when you are trying to conceive and when you are pregnant is a great way to ensure your body gets the proper nutrients to support a healthy pregnancy. You can find prenatal vitamins over the counter at grocery stores or pharmacies. If you are unsure which prenatal vitamins to take, ask your healthcare provider for recommendations tailored to your specific needs.

## Iron Supplementation

Iron deficiency is a common issue in women's health, particularly among menstruating women due to blood loss. It can cause dizziness, headaches, low energy, and fatigue, significantly impacting daily life. According to the World Health Organization (WHO), daily iron supplementation in menstruating women can increase iron stores and hemoglobin levels, reducing the risk of anemia.

While previous studies recommended daily doses of 150-200mg of ferrous sulfate, newer evidence suggests alternating-day dosing is equally effective, improves absorption, and reduces gastrointestinal side effects. Dietary intake is also crucial for maintaining iron levels. Iron exists in two forms: heme, found in animal products like seafood, poultry, and lean meats, and non-heme, found in plant-based foods such as leafy greens, beans, tofu, lentils, and nuts. Non-heme iron has a lower absorption rate but remains essential. Pairing it with vitamin C-rich foods, like citrus fruits, enhances absorption. A well-balanced diet incorporating both forms of iron supports overall health.

Iron needs vary by life stage. During pregnancy, increased iron intake supports fetal development, and supplementation is often advised to prevent anemia. Postmenopausal women typically require less iron, and routine supplementation is unnecessary unless a deficiency is diagnosed. Consulting a healthcare provider can help determine individual supplementation needs. Being informed about iron-rich foods and discussing concerns about menstrual blood loss with a provider is key to preventing deficiency.

## Vitamin D: How Much Do You Need?

While Vitamin D is beneficial for preventing cancer, osteoporosis, arthritis, and psoriasis, it is especially important during pregnancy. If a woman is Vitamin D deficient, it can impact fetal bone health and increase the risk of infections, preeclampsia, and premature birth. A woman can be deficient in Vitamin D due to lack of sun exposure, pregnancy, and obesity, all of which can negatively affect both maternal and fetal health. Women who maintain adequate Vitamin D levels have a lower chance of developing complications during pregnancy. Since dietary sources alone may not provide enough Vitamin D, supplementation is often recommended, with some guidelines suggesting up to 4,000 IU per day for pregnant women. All women should be tested for Vitamin D when pregnant to ensure a healthy pregnancy.

## Keep up with us!



Email us if you need us:  
[wrho.ou@gmail.com](mailto:wrho.ou@gmail.com)



Get access to more content on  
our Instagram: [@wrhouu](https://www.instagram.com/wrhouu)



Lastly, don't miss out on our  
TikTok: [@ou.wrho](https://www.tiktok.com/@ou.wrho)

# SOURCES:

Cleveland Clinic. Prenatal Vitamins.

<https://my.clevelandclinic.org/health/drugs/9754-pregnancy-prenatal-vitamins>

Mayo Clinic. Nutrition and prenatal health.

[https://mcpress.mayoclinic.org/dairy-health/nutrition-and-prenatal-health-supporting-your-babys-growth-and-development/?gad\\_source=1](https://mcpress.mayoclinic.org/dairy-health/nutrition-and-prenatal-health-supporting-your-babys-growth-and-development/?gad_source=1)

National Health Service. Understanding Calories.

<https://www.nhs.uk/live-well/healthy-weight/managing-your-weight/understanding-calories/>

National Library of Medicine. "Calcium in women: healthy bones and much more."

<https://pubmed.ncbi.nlm.nih.gov/14971550/>

National Library of Medicine. "The Emerging Role of Vitamin D3 in Women's Health."

<https://pmc.ncbi.nlm.nih.gov/articles/PMC3696135/>

Nutrition Committee of the American Heart Association.

<https://www.ahajournals.org/doi/10.1161/01.cir.94.7.1795>

"Reported Knowledge of Typical Daily Calorie Requirements: Relationship to Demographic Characteristics in US Adults."

<https://www.sciencedirect.com/science/article/abs/pii/S2212267218306415>

The Nutrition Source, Harvard School of Public Health. Iron.

<https://nutritionsource.hsph.harvard.edu/iron/>

Siebenthal et al. "Alternate day versus consecutive day oral iron supplementation in iron-depleted women: a randomized double-blind placebo-controlled study."

[https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(23\)00463-7/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(23)00463-7/fulltext)

World Health Organization. Daily iron supplementation in adult women and adolescent girls.

<https://www.who.int/tools/elena/interventions/daily-iron-women>

Yale Medicine. Are You Iron Deficient? 8 Things Women Should Know.

<https://www.yalemedicine.org/news/are-you-iron-deficient-what-women-need-to-know>

Yale Medicine. Calcium.

<https://medicine.yale.edu/news-article/calcium-the-role-of-supplements-and-womens-heart-health/>