

NUTRITION IN PREGNANCY

Calories

A commonly heard phrase in pregnancy....*"You're eating for two!"*

Unfortunately, the caloric needs in pregnancy are actually **ZERO** until you get into the second trimester. The first trimester is really all about survival. The fatigue, nausea, and vomiting may make it very hard to maintain your current caloric needs and you absolutely do not need to focus on increasing your calories during this time. The second trimester does require more calories at **340 calories/day** and the third trimester needs increase to **452 calories/day**. This is equivalent to only a few additional snacks throughout your day and definitely not a doubling in your daily caloric intake.

Carbohydrates



The RDA for carbohydrates in pregnancy is **175 grams/day**, up from 130 grams/day in nonpregnant women.



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com

ALL CARBS ARE NOT CREATED EQUAL

Traditional carbohydrate type foods like bread, rice, cereals, and pastas are mostly **simple carbohydrates**. Simple carbohydrates are very quickly absorbed and processed throughout the body causing more rapid ups and downs in your circulating insulin levels.

Your diet should focus more on **Complex Carbohydrates**.

Most people do not think about classifying vegetables, legumes, and fruits as carbohydrate dense but these are the ideal sources of carbohydrates to consume during pregnancy along with whole grain breads.

As your pregnancy progresses, the placenta releases a hormone called **hPL** that increases insulin resistance, making it even more vital to consume low glycemic index carbohydrates.

This is also the hormone that places all pregnant women at risk for **gestational diabetes**, or diabetes in pregnancy.

You will be screened for this at approximately 24-28 weeks but establishing good diet habits prior to this is important.

Fat



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com

Unfortunately, there are no clear guidelines on the amount of fat you should consume in pregnancy. Low intake of polyunsaturated fatty acid has been associated with a small increase in preterm birth, low birth weight, and adverse neurodevelopmental outcomes.

DHA has conflicting information on possible neurodevelopmental benefits. Overall recommendations include **adding fish to two servings weekly with a goal of 200mg daily** or adding a supplement to obtain the goal of 200mg daily.

Protein



Protein is probably the most forgotten nutrient in pregnancy and perhaps the most important for optimal health in pregnancy. The fetal/placental unit consumes approximately 1kg of protein during the pregnancy, with the majority of this requirement in the last 6 months.

To fulfill this need, the pregnant female should ingest **1.1gram/kg/day of protein**.

So, for a woman weighing **170 pounds** equals **77kg** equals **85grams/day**.



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com

Iron



Iron is necessary for both fetal/placental development and to expand the maternal red cell mass and iron-deficiency anemia in pregnancy has been associated with low birth weight.

Total iron loss associated with pregnancy and breastfeeding is about 1000mg

The best dietary source is heme iron.

Absorption of nonheme iron is enhanced by Vitamin C rich foods

Current recommendations for a non-iron deficient pregnant female include **increasing iron consumption by about 15mg/day**

Most often this can be found in a prenatal vitamin.

Calcium



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com

Fetal skeletal development requires about 30 grams of calcium during pregnancy, primarily in the last trimester. Calcium absorption actually increases during pregnancy and allows progressive retention throughout gestation.

The **RDA for calcium is 1000mg per day** (1300mg per day age 14-18)

Look for a **prenatal vitamin** with at least **250mg Calcium**

Folic Acid



This is absolutely the **MOST important micronutrient needed when even THINKING about conceiving.**

The **US Preventative Task Force** recommends that women take a supplement containing **0.4 to 0.8mg of Folic Acid** one month before and for the first two to three months after conception to reduce their risk of having a child the neural tube defects.

0.6 mg is recommended thereafter to meet the growth needs of the fetus and placenta.

There may be additional benefits, including reducing cleft lip/palate or congenital heart disease, although there is conflicting information on these reductions.



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com

Your needs will also be much larger if you are on seizure medication, or have had a child with a neural tube defect. These recommendations increase to **4mg Folic Acid** daily.

Look for a **prenatal vitamin** with a minimum of **0.6mg Folic Acid**

DIETARY RESTRICTIONS

Vegetarian

Vegetarian diets, especially those that exclude all animal products, may **not** provide adequate amounts of **essential amino acids, iron, trace minerals, B-12, vitamin D, and calcium, or complex lipids** for normal embryonic and fetal development.

However, these deficiencies can be altered with minor dietary alterations.

Caffeine



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com

Good news! You don't have to give up caffeine during your pregnancy.

There are many conflicting studies regarding pregnancy outcomes and caffeine consumption.

Despite the fear that these studies can bring to coffee lovers, it is absolutely safe to limit caffeine to **less than 200 to 300mg per day**

Artificial Sweeteners:



There is no evidence that the use of aspartame (NutraSweet), sucralose (Splenda), saccharin (Sweet 'N Low), acesulfame potassium (Sunnet), or stevioside (Stevia) by pregnant women is controversial.

A task force of the American Academy of Pediatrics' Committee on Nutrition concluded that aspartame is safe for both the pregnant mother and developing baby.

In addition, the US FDA concluded that women who are pregnant or breastfeeding can safely use aspartame. Although methanol is the breakdown product of aspartame, methanol is also produced as a breakdown product of many fruits; the level produced from either of these sources is very low and considered safe in pregnancy.



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com

The FDA recommends that pregnant women limit consumption of aspartame to a moderate level.

The ADI for saccharin and sucralose is 5mg/kg/day, for acesulfame potassium is 15mg/kg/day, and for stevioside is 4mg/kg/day.

Fasting

Pregnant women may fast for several hours during the day, for one or more days, for religious or other reasons.

The good news is the body is able to fuel the body with early conversion to fat metabolism.

Ketonuria has been thought to be harmful in pregnancy. However, studies of pregnancy outcomes in healthy women who fasted during the month of Ramadan have not reported adverse fetal effects.

Some authors have hypothesized that prolonged fasting during pregnancy can lead to permanent alterations to fetal physiology that have consequences in adult life.

Gluten-free Diet

Women with undiagnosed and untreated gluten-intolerance or **celiac disease** are at increased risk of **preterm birth or having a small for gestational age infant.**

Treatment with a gluten-free diet has been shown to eliminate the risks associated in pre

Although gluten-free diets are popular and promoted in the lay press for their health benefits, there is no evidence that following a gluten-free diet has any significant health effects in women without celiac disease. **Elimination of gluten-rich foods during**



pregnancy could result in inadequate intakes of thiamin, riboflavin, niacin, folate, and iron.

Substitution with other whole grain foods should prevent any nutritional deficiency.

Weight Gain!!

Every pregnant woman to some degree feels somewhat helpless to the massive changes their body goes through during pregnancy. Weight gain is a “big picture” type of goal, realizing that every woman will gain weight in different rates at different times. Some may have weight loss in the first trimester and then a large gain in the second trimester. Some may have a greater gain at the beginning and then taper off. By focusing on meeting your core nutrient requirements, exercising regularly, and staying within y

our caloric recommendations, it should be possible to meet the requirements for a healthy weight gain.

Below are the current Institute of Medicine recommendations for **singleton** pregnancy:

-BMI less than 18.5 – 28-40 lbs

-BMI 18.5 to 24.9 – 25 -35 lbs

-BMI 25.0 to 29.9 – 15-25 lbs

-BMI 30 and over – 11 to 20 lbs

For Multiple Gestations

- Body mass index (BMI) <18.5 kg/m² (underweight) – no recommendations



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com

- BMI 18.5 to 24.9 kg/m² (normal weight) – weight gain 37 to 54 lbs (16.8 to 24.5 kg)
- BMI 25.0 to 29.9 kg/m² (overweight) – weight gain 31 to 50 lbs (14.1 to 22.7 kg)
- BMI ≥30.0 kg/m² (obese) – weight gain 25 to 42 lbs (11.4 to 19.1 kg)

Vitamins and minerals — Dietary or vitamin/mineral supplementation should include adequate iron and folic acid. Women with twins are at increased risk of developing anemia. The Society of Maternal-Fetal Medicine recommendations for daily total intake of vitamins and minerals in twin pregnancy include.

Folic Acid– 1 mg throughout pregnancy

Iron – 30 mg throughout pregnancy

-End-



737 E Crawford St. Salina, KS 67401
(785) 825-9024 | mowerywomensclinic.com