

HAPPYFAMILY

prenatal nutrition guide

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1. Off to a good start – Preconception Nutrition

START ENSURING A HEALTHY FUTURE FOR YOUR BABY EVEN BEFORE YOU CONCEIVE!

Some nutrients are thought to support fertility, while others are so important for developing babies that it's recommended you have a good supply from the very first day of your pregnancy. If you're trying to become pregnant, it's a good idea to take a prenatal vitamin each day. Here are some vitamins and minerals of particular interest before (and during) pregnancy:

- **ANTIOXIDANTS** – Prevent cell damage that may play a role in infertility. Diets rich in fruits, vegetables, and whole grains are highest in antioxidants like selenium, vitamin E and vitamin C.
- **FOLIC ACID** – Prevents neural tube defects like spina bifida. The body won't store up extra folic acid – you need it every day. Since its role in fetal development is so early in pregnancy it's recommended that all women of child-bearing age get at least 400 mcg per day. It's in prenatal vitamin supplements, and also found in fortified grains and cereals, leafy greens (e.g., spinach), broccoli, oranges, beans, peas, and peanuts.
- **ZINC** – This mineral plays a role in sperm production by men, and ovulation and fertility in women. It's recommended that you get 15mg per day. Good sources include beef, lamb, pumpkin seeds, yogurt, spinach, broccoli, peas, and leafy greens.
- **IRON** – Pregnant women are at risk for becoming iron-deficient and anemic. By making sure you have good sources of iron in your diet now, you can start with a good supply of this important mineral. Food sources include: lean red meats, beans, tofu, fortified cereals, leafy greens, and shitake mushrooms.



The Pre-Pregnancy Cleanse

Many of the chemicals in the environment and toxins in the food supply accumulate in the body in fatty tissues. This means that exposures to chemicals before conception may cause Baby to be exposed as well. Now's a great time to clean up your diet and immediate surroundings in preparation for pregnancy. **Here are some great first steps:**

- **EAT ORGANIC!**
Reduce your exposure to synthetic pesticides, synthetic hormones and antibiotics by choosing organic foods.
- **AVOID MERCURY.**
Steer clear of these fish which are highest in the contaminant methylmercury which can build up in your body and cause neurological damage: tilefish, king mackerel, swordfish, and shark. Instead, choose these safe, low-mercury fish (the ones with a * are particularly rich in omega-3 fatty acids): Anchovies*, Catfish, Flounder, Halibut* (limit to fewer than 6 servings per month), Herring*, North Atlantic Mackerel*, Pollack, Salmon*, Sardines*, Shrimp, Tilapia, Trout*, Tuna, canned, chunk light* (limit to fewer than 2 cans per week)

- **CHOOSE KITCHEN PLASTICS CAREFULLY.**

Avoid polycarbonate plastic, the hard clear plastic coded with the number 7 that may leach a hormone-disrupting chemical called BPA into foods and drink. Instead, choose safer plastics like those labeled with a 1, 2, 4, or 5. Better yet: avoid plastics in favor of stainless steel, aluminum, and glass.



- **TEST YOUR DRINKING WATER.**

Test your drinking water – Most municipal tap water is considered safe, however studies indicate some sources may have contaminants like chlorine, bacteria, and industrial chemicals. Plus, old pipes may leach lead into your water. Pick up a simple home-testing kit at your local hardware store and test your water for safety. If you have a well that provides your drinking water, a licensed well contractor can test both the well and the pump for contamination.



CLEANSE GIVE YOURSELF A PRE-PREGNANCY DIET MAKEOVER!

The eating style that's recommended in pregnancy is basically the same as the one all adults should be consuming - fruits and vegetables, whole grains, lean proteins, healthy fats, not too much refined sugar or processed foods. If this doesn't sound like your diet, don't wait until you see a positive pregnancy test to do a diet overhaul. Start today and you'll have time to ease into these healthy habits:

- Aim for a healthy weight with a balanced diet and moderate exercise
- Eat whole foods; avoid highly processed foods
- Wean off high amounts of caffeine (i.e., more than 2 cups of coffee per day)
- Seek help for a dependency on alcohol, tobacco, or other drugs
- Talk to a professional about an eating disorder

2. The Right Weight

A HEALTHY DIET DURING PREGNANCY WILL HELP MAMA GAIN JUST THE RIGHT AMOUNT OF WEIGHT TO SUPPORT BABY'S GROWTH AND DEVELOPMENT.

Weight gain recommendations are based on your pre-pregnancy weight. Some of the weight gained in pregnancy is actual baby weight – the weight of your baby's developing body. Other weight comes from amniotic fluid, extra blood to support your body's needs, and extra fat to provide energy for the amazing task at hand.

Women who are overweight or obese don't need to accumulate as many fat reserves, so their weight gain recommendations are lower. Women who are underweight may need additional stored energy, so it's recommended that they gain more weight. See the table below for details about healthy weight gain during pregnancy.

PRE-PREGNANCY WEIGHT (BMI)	1ST TRIMESTER, TOTAL WEIGHT GAIN	2ND & 3RD TRIMESTER, WEIGHT GAIN PER WEEK	TOTAL PREGNANCY WEIGHT GAIN
Normal (20-25)	Less than 5 lbs	Slightly less than 1 pound	25-35 pounds
Underweight (<18.5)	5 to 10 pound	1 pound	28-40 pounds
Overweight (26-29)	Less than 5 pounds	2/3 pound	15-25 pounds
Obese (>29)	Less than 5 pounds	1/2 pound	11-20 pounds

Your doctor or midwife will check your weight periodically throughout pregnancy. If he or she is concerned, you'll be advised to cut back on extra calories in your diet, or to be more active with regular light to moderate exercise.

Avoiding excess weight gain is important, because too much weight in pregnancy may result in:

- An increase in your risk of gestational diabetes
- More stretch marks, varicose veins and backaches
- Elevated blood pressure
- A larger size baby, resulting in a more difficult delivery & recovery after birth
- A more difficult time losing the weight

The bottom line on weight gain

It's important to keep it under control, but there's no need to obsess. Eat right, stay as active as you can, and your weight should stay in an ideal range.



WHERE DOES ALL THE BABY WEIGHT GO?

BABY:
7 to 8.5 pounds

PLACENTA:
1.5 pounds

BREASTS:
1-3 pounds

AMNIOTIC FLUID:
2 pounds

BLOOD VOLUME INCREASE:
3.5 pounds

MATERNAL FLUID:
3 pounds

UTERUS:
2 to 3 pounds

MATERNAL FAT STORES:
8 to 10 pounds

TOTAL:
28-35 pounds



Body Mass Index (BMI) is a measure of body fat based on height & weight that applies to both adult men and women. You can easily compute your BMI by using the online calculator at nhlbisupport.com/bmi/, the National Heart, Lung, & Blood Institute, a part of the *National Institutes of Health*, US Dept. of Health and Human Services.

BMI CATEGORIES:
UNDERWEIGHT = <18.5
NORMAL WEIGHT = 18.5-24.9
OVERWEIGHT = 25-29.9
OBESITY = 30 OR GREATER

3. The Do's: Grow A Healthy Happy Baby With A healthy diet

AS THE SAYING GOES, “YOU ARE WHAT YOU EAT.” WHEN YOU’RE PREGNANT, YOUR DIET NOT ONLY SUPPLIES YOU WITH SUSTENANCE AND HEALTH, BUT IT SUPPLIES BABY, TOO. HERE ARE PRENATAL EATING TIPS TO HELP YOU CREATE THE OPTIMAL DIET FOR YOU AND BABY.

Eat Organic

Organic foods are grown without the use of chemical pesticides, chemical fertilizers, artificial hormones, antibiotics, and genetically modified organisms (GMOs). By choosing organic foods, you reduce your exposure to pesticides and other chemicals, and you reduce your baby’s exposure, too. Given how vulnerable developing babies are to toxic exposures, many experts believe that pregnancy is a most crucial time for choosing organics over conventionally produced foods. See “Why Organic?” for more information.

Eat Just Enough

Make food choices with your baby in mind, but don’t “eat for two” – you’ll eat too much! During the 1st trimester your body doesn’t need extra calories. (Baby is only the size of a shrimp!) During the 2nd and 3rd trimesters you do need 300 extra calories per day. You may be surprised to learn that it’s not so much extra food. Here are ideas for 300-calorie additions to your daily diet:

- 8 oz low fat yogurt with ¼ cup low fat granola
- 1 tablespoon peanut butter on 1 slice whole wheat toast with 1 cup skim milk
- ½ cup premium ice cream
- 1 ounce cheddar cheese and ¼ cup hummus (chickpea spread) with 8 – 10 wheat crackers
- 1 ounce pretzels with an apple and 1 cup low fat chocolate milk
- granola bar with an orange and ½ cup low fat milk
- 1 oz (about 15-20 halves) walnuts with ¼ cup raisins & 1 chocolate kiss or a few chocolate chips

Get Sufficient Protein



It’s essential for maintaining your muscles and growing tissue like the placenta and umbilical cord. Choose 3 servings of protein rich foods each day during the 2nd and 3rd trimesters when your body needs at least 60 grams of protein each day. Many protein rich

foods like beef, shellfish and chickpeas, are also good sources of zinc, an important mineral.

Here are examples of one serving of protein foods. (*Non-meat sources tend to contain less protein so the serving size is larger to meet the recommended intake.*)

- 2 ½ to 3 ounces poultry, pork, or beef
- 3 to 3 ½ ounces fish or shrimp (equivalent to about 14 large shrimp)*
- 7 egg whites
- 3 whole eggs plus 1 white
- 1 cup egg substitute
- 2 ½ cups (20 ounces) of milk
- 2 cups yogurt
- 3 ounces aged cheese (e.g., cheddar, swiss)
- ¾ cup cottage cheese
- 9 ounces (1 cup) tofu
- 1 ½ cups beans or chickpeas



FOCUS ON FRUITS, VEGGIES, & GRAINS

Just as before you’re pregnant, these healthy foods should make up the foundation of your daily diet during pregnancy. Be sure to include sources of beta carotene, a powerful antioxidant found in yellow and orange foods like yellow squash, papaya, apricots, pumpkin, cantaloupe, sweet potatoes, and carrots. And eat sources of vitamin C, too. This antioxidant is not only good for the immune system but it also helps your body absorb iron. Sources include citrus fruits like oranges, grapefruit, tangerine, orange or grapefruit juices, tomatoes and tomato products and potatoes.



SMART SUPPLEMENTAL PROTEIN

Certain vitamins and minerals are so essential that most practitioners recommend supplements to ensure proper intake. These include folic acid and iron:

FOLIC ACID

Required for the development of your baby’s neural tube – the tissues that become the brain and spinal cord. You need 600 to 800 mcg of folic acid each and every day, the amount provided by prenatal vitamins. (If you’re not taking a prenatal multivitamin, ask your doctor or midwife about taking a folic acid supplement.)

IRON

Produces hemoglobin, which carries the oxygen in your blood to your body tissues. A deficiency causes anemia (you should be tested for this during your 2nd trimester). You need between 15 and 30 milligrams of iron per day – a recommendation that may be difficult to meet with your diet alone. Most prenats contain 60 mg.

BONE UP ON YOUR CALCIUM NEEDS

Bone up on your calcium needs. Calcium strengthens bones and teeth – both yours and Baby’s. It may also prevent high blood pressure. You need 1000 to 1500 milligrams per day – not too much different than your requirements before pregnancy. Your prenatal vitamin will provide about 400 to 500 milligrams. In your diet, aim for four servings of calcium-rich foods like low fat milk (including lactose free milk), yogurt, cheese, fortified cereals and juices.

- Choose calcium-rich snacks like string cheese, low fat yogurt, or smoothies made with frozen fruit and low fat yogurt.
- Instead of coffee, try a decaf latte or a steamed skim milk.
- Have some chocolate milk when you’re craving sweets
- Top a potato or bowl of soup with shredded low fat cheese.
- Try cottage cheese topped with granola for a tasty breakfast.
- Make an easy dip for veggies – add fresh herbs to plain yogurt.

Go Fish

Many varieties of fish provide DHA, the essential omega-3 fatty acid which will be a major building block for Baby’s brain and eyes. Choose these safe, low-mercury fish.

* *particularly rich in omega-3 fatty acids*

- Anchovies*
- Catfish
- Flounder
- Halibut* (limit to fewer than 6 servings per month)
- Herring*
- Mackeral* (North Atlantic Mackerel, not King Mackerel which is highest in mercury)
- Pollack
- Salmon*
- Sardines*
- Shrimp
- Tilapia
- Trout*
- Tuna, canned, chunk light* (limit to fewer than 2 cans per week)

For Vegan Mamas

If you eat zero animal products (i.e., no meat, no milk, no eggs) you need supplemental vitamin B12 during pregnancy. Seek out good sources including fortified cereals, fortified soy milks, and nutritional yeast, and ask your OB or midwife if you should be taking a supplement.



WHY ORGANIC?

Has a trip to the grocery store ever left you wondering: is buying organic really worth the higher price? And what does “all natural” really mean anyway? The variety of “green” products has skyrocketed with options ranging from organic skincare lines to biodynamically grown jams. no wonder consumers are confused by the terminology and benefits of these products. Is this just another fad?

WHAT IS “ORGANIC”?

Organic food is generally described in terms of what it is not. It is not produced or grown with the use of synthetic chemicals, fertilizers, antibiotics, growth hormones, genetically modified seeds (GMOs) or pesticides. On the other hand, conventional farming, with its focus on producing large quantities of food as cheaply as possible has led to a pesticide-laden food market. Organic farming is more labor-intensive and less efficient than modern conventional farming and this usually means higher prices at the grocery store. But despite the higher cost, many people, me included, believe that the benefits of eating organic food more than justify the higher cost.

ORGANIC BENEFITS

Among the many benefits of eating organic food, the most cited one is that eating organic food reduces your exposure to potentially hazardous chemicals. University of Washington scientists found that when they compared preschoolers who consumed only organic foods

to a group who only consumed conventional foods over a 24-hour period, the conventional food group had about 9 times more pesticide residues in their urine. Even more troubling was that the conventional group had levels that far exceeded the guidelines set by the Environmental Protection Agency (EPA). Conversely, the children in the organic food group had pesticide levels well within the accepted EPA guidelines.

ALL “NATURAL” FOODS AREN’T CREATED EQUAL

The booming organic market has hundreds of different products for you to choose from. But just because it’s organic doesn’t necessarily mean it’s healthy. Foods with organic and all-natural ingredients may still be over-processed, high in sugar or fat, or otherwise less-than-optimal choices. When faced with a choice at the market, choose organic and look for the least processed foods available.

So we challenge you to incorporate more unprocessed organic foods into your and your family’s daily diet. You will be helping to cut your family’s exposure to chemicals while developing their taste for fresh, whole foods. And who knows? You may even see other positive changes – more energy and vitality, more enjoyment of your food. Personally, we think that’s worth every penny!



our nutrition team

ROBERT W. SEARS, MD



Robert W. Sears, MD, noted pediatrician and author, is part of the Sears family of pediatricians. He is in private practice with his father, Dr. William, and his brother, Dr. Jim. The proud father of three active boys, Andrew, age 13, Alex, age 10, and Joshua age 4, he especially enjoys talking to parents in his practice about the joys, and trials, of watching their little babies and toddlers thrive through the first several years of life.

Dr. Bob, as he likes to be called by his little patients, appears regularly on TV and is a frequent speaker at La Leche conferences, offering advice on parenting, behavior and health issues.

He is co-author of *The Updated Baby Book*, *The Premature Baby Book*, *The Baby Sleep Book 2005* and author of *Father's First Steps: 25 Things Every New Dad Should Know*. In his spare time Dr. Bob enjoys surfing the California waves, mountain biking, playing bass guitar with his teenage son guitarist, and trying to keep up with his three children.

Board Certified in Pediatrics, Dr. Bob earned his medical degree at *Georgetown University School of Medicine*. He did his pediatric internship and residency at Children's Hospital Los Angeles.

Dr. Sears works with the **HAPPYFAMILY** team to develop healthy meals for babies. Also, check the side of each box for his helpful feeding tips.

Watch **HAPPYFAMILY**'s home page for more parenting advice and tips from Dr. Bob, and visit the famous Sears family site at: www.askdrsears.com

AMY N. MARLOW, MPH, RD, CDN



Amy is a registered dietitian (RD) and New York State certified nutritionist. She holds a Bachelor of Science degree in Nutrition and Dietetics from the University of Delaware and completed her dietetics training at the University of Virginia Medical Center in Charlottesville, VA. She also has a Master of Public Health degree from the University of Maryland.

Amy worked as a pediatric dietitian at *Georgetown University Medical Center* in Washington DC, where she provided nutrition care in the pediatric oncology unit, high-risk obstetrics ward, and the pediatric and neonatal intensive care units. She has also consulted for a youth development program for underprivileged teens called Brainfood, and the National Cancer Institute's 5-A-Day program.

In addition to her work with **HAPPYFAMILY**, Amy currently helps manage a Fortune 100 company's employee wellness program and sits on the Board of the Greater New York Dietetic Association. When time allows, Amy sees individual nutrition clients in New York City. She has been published as a health writer and has presented on a variety of nutrition and health topics. Amy is the proud mother of Noah, born in March 2005 and Alana, born December 2007.

HAPPYFAMILY IS A PROUD PARTNER OF

 **Project Peanut Butter**
www.projectpeanutbutter.org

HAPPYFAMILY and Project Peanut Butter share a common goal, to give children everywhere the healthiest food to maximize their development and optimize their growth.

Project Peanut Butter was founded by Mark Manary, a pediatrician who is saving the lives of starving children in Malawi with a revolutionary treatment: peanut butter. His *Plumpy Nut* treatment could become a worldwide standard of care.

Find out more by visiting Project Peanut Butter's website—and donating to them directly. You too can make a difference.

