



WILLIAM & MARY
HEALTHY BEGINNINGS
PROJECT



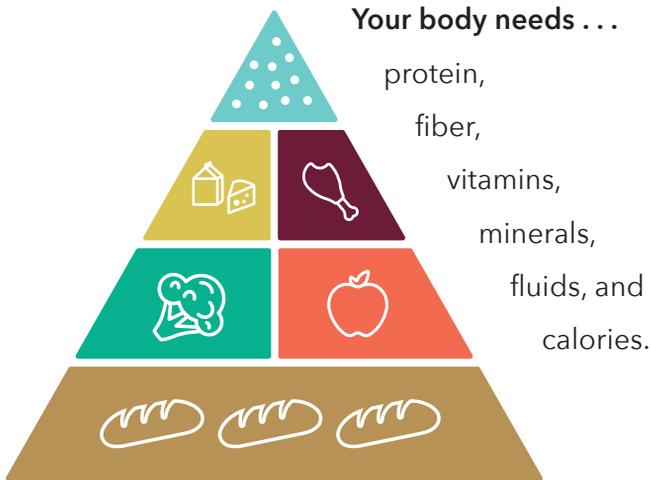
Nutrition
for You
and
Your
Baby

Table of Contents

General Guidelines	1
Good Food Choices + Exercise	
BMI	
Recommended Weight Gain	
Reading Nutrition Labels	4
What Are You Eating?	5
Why Eat Healthy?.....	6
Smart Choices	9
Special Considerations	10
Food Journal	12
Questions and Notes	14
More Information	15
Resources and Contributors.....	16

General Guidelines

GOOD FOOD CHOICES + EXERCISE



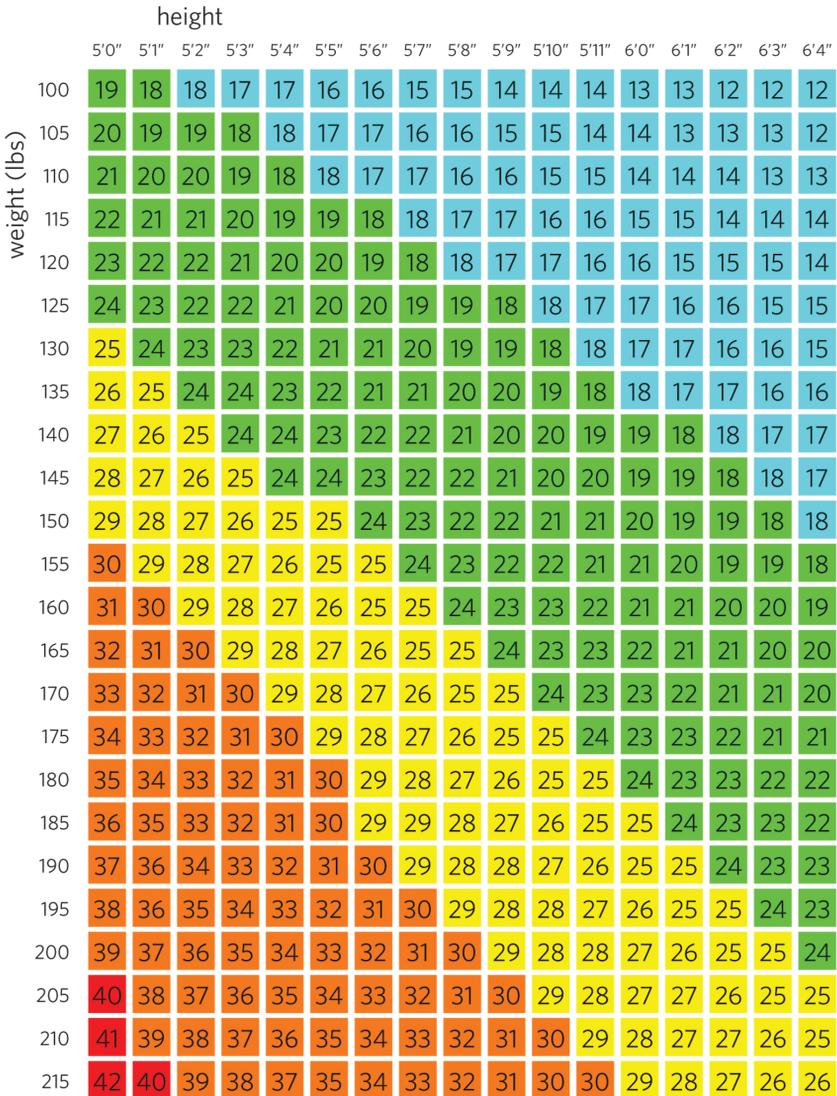
Good food choices are key to a healthy baby!

“Eating healthy foods is more important now than ever! You need more protein, iron, calcium, and folic acid than you did before pregnancy. You also need more calories. But “eating for two” doesn’t mean eating twice as much. Rather, it means that the foods you eat are the main source of nutrients for your baby. Sensible, balanced meals combined with regular physical fitness is still the best recipe for good health during your pregnancy.”

- from *Womenshealth.gov*

General Guidelines

BMI CHART



below 18 - underweight

18 to 24 - healthy weight

25 to 29 - overweight

30 to 39 - obese

General Guidelines

RECOMMENDED WEIGHT GAIN

Your pre-Pregnancy BMI: _____

pre-Pregnancy BMI	Expected Weight Gain
below 20	28 - 40 lbs.
20 - 26	25 - 35 lbs.
above 26	15 - 25 lbs.

**if you are having twins, you should expect to gain 35-45 pounds*



You should expect to gain between 2 and 8 pounds the first 3 months, and then 1 pound per week after that.

Where
does
the
weight
go?

Placenta	2 - 3 lbs.
Amniotic Fluid	2 - 3 lbs.
Breast Tissue	2 - 3 lbs.
Uterus	2 - 5 lbs.
Blood	4 lbs.
Stored Fat	5 - 9 lbs.
Baby	6 - 8 lbs.
TOTAL	23-35 lbs.

Reading Nutrition Labels

10% Juice

Nutrition Facts	
Serving Size (fl oz)	8
Servings per container	2
Amount Per Serving	
Calories	120
% Daily Value*	
Total Fat (g)	0 0%
Sodium (mg)	190 8%
Potassium (mg)	0 0%
Total Carbs (g)	29 10%
Sugars (g)	29
Protein (g)	2
Vitamin C	100%
Thiamin	10%
Ingredients: WATER, HIGH FRUCTOSE CORN SYRUP AND 2% OR LESS OF EACH OF THE FOLLOWING: CONCENTRATED JUICES (ORANGE, TANGERINE, APPLE, LIME, GRAPEFRUIT), CITRIC ACID, ASCORBIC ACID (VITAMIN C), THIAMIN HYDROCHLORIDE (VITAMIN B1), NATURAL FLAVORS, MODIFIED CORNSTARCH, CANOLA OIL, SODIUM CITRATE, CELLULOSE GUM, XANTHAN GUM, SODIUM HEXAMETAPHOSPHATE, SODIUM BENZATE TO PROTECT FLAVOR, YELLOW #5, YELLOW #6	
*Percent Daily Values are based on a 2000 calorie diet.	

VS.

100% Juice

Nutrition Facts			
Serving Size (fl oz)	8		
Servings per container	1		
Amount Per Serving			
Calories	110		
% Daily Value*			
Total Fat (g)	0 0%		
Sodium (mg)	0 0%		
Potassium (mg)	450 13%		
Total Carbs (g)	26 9%		
Sugars (g)	22		
Protein (g)	2		
Vitamin C	120%	Calcium	2%
Thiamin	10%	Vitamin B6	6%
Niacin	4%	Magnesium	6%
Folate	15%		
Not a significant source of saturated fat, cholesterol, dietary fiber, vitamin A, and iron			
Ingredients: 100% PURE SQUEEZED PASTURIZED ORANGE JUICE			
*Percent Daily Values are based on a 2000 calorie diet.			

Whole Milk

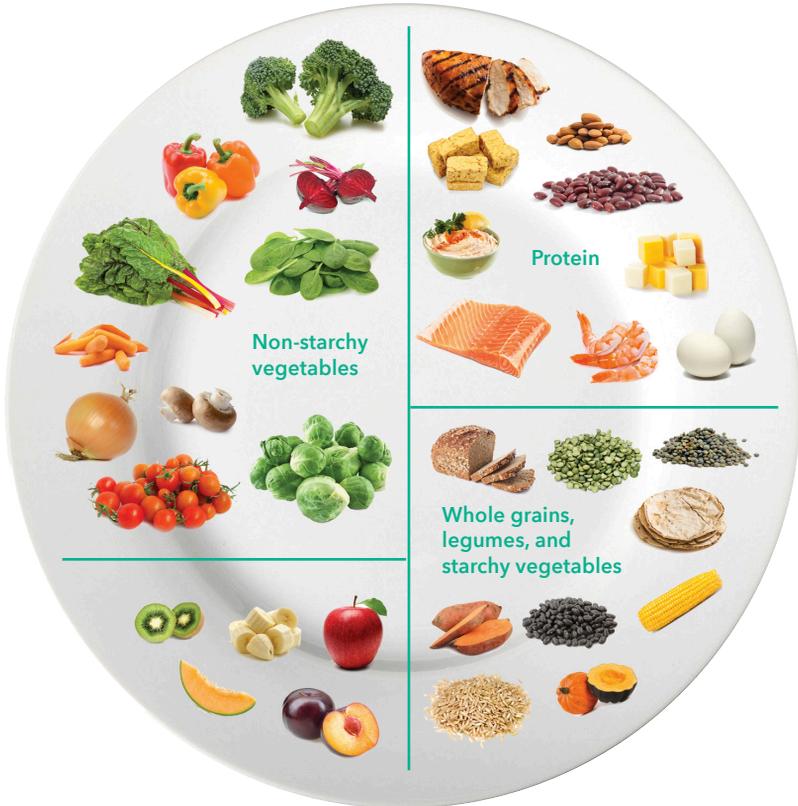
Nutrition Facts			
Serving Size (fl oz)	8		
Servings per container	1		
Amount Per Serving			
Calories	160		
Calories from Fat	80		
% Daily Value*			
Total Fat (g)	9 14%		
Saturated Fat (g)	6 30%		
Cholesterol (mg)	35 12%		
Sodium (mg)	120 5%		
Total Carbs (g)	11 9%		
Dietary Fibers (g)	0 0%		
Sugars (g)	22		
Protein (g)	8		
Vitamin A	6%	Vitamin C	0%
Calcium	30%	Iron	0%
Ingredients: WHOLE MILK			
*Percent Daily Values are based on a 2000 calorie diet.			

VS.

Non-Fat Milk

Nutrition Facts			
Serving Size (fl oz)	8		
Servings per container	1		
Amount Per Serving			
Calories	90		
Calories from Fat	0		
% Daily Value*			
Total Fat (g)	0 0%		
Saturated Fat (g)	0 0%		
Cholesterol (mg)	<5 7%		
Sodium (mg)	125 5%		
Total Carbs (g)	12 4%		
Dietary Fibers (g)	0 0%		
Sugars (g)	12		
Protein (g)	8		
Vitamin A	6%	Vitamin C	0%
Calcium	30%	Iron	0%
Ingredients: NON-FAT MILK WITH VITAMIN A AND D ADDED			
*Percent Daily Values are based on a 2000 calorie diet.			

Your Pregnancy Plate



TIPS:

- Choose 2 to 3 servings of nonfat or 1% milk or yogurt (cow, soy or almond). A serving is 8 oz. Choose yogurt with less than 15 g of sugar per serving.
- Choose protein sources such as poultry, beans, nuts, low-mercury seafood, eggs, tofu or low-fat cheese. Limit red meat and avoid cold cuts and other processed meats.
- Choose whole grains, such as whole wheat bread or pasta, brown rice, quinoa or oats and other healthy starches like beans, lentils, sweet potatoes or acorn squash. Limit white bread, white rice and fried potatoes.
- Choose large portions of a variety of non-starchy vegetables, such as leafy greens, broccoli, carrots, peppers or cabbage.
- Choose small amounts of healthy oils (olive and canola) for cooking or to flavor foods. Nuts, seeds and avocados contain healthy fats.
- Choose a variety of whole fruits. Limit juice and dried fruits. Fruit is great for snacks and dessert, too.
- Drink mainly water, decaf tea or decaf coffee and avoid sugary beverages.
- Aim for at least 30 minutes of walking or another physical activity each day.

Why Eat Healthy?

KEY NUTRIENTS AND THEIR BENEFITS

Calcium

Recommended Daily Allowance: 1000 mg

Dose in a standard one-a-day prenatal multivitamin: 300 mg

Importance: helps build strong bones and teeth

Sources: milk or lactaid milk, swiss, cheddar, muenster, monterey cheese, yogurt, tofu, sardines, pudding, collards, broccoli, fortified instant oatmeal, kale, cornbread

Iron

Recommended Daily Allowance: 27 mg

Dose in a standard one-a-day prenatal multivitamin: 28 mg

Importance: helps red blood cells deliver oxygen to your baby

Sources: lean red meat, dried beans and peas, iron-fortified cereals, prune juice, oatmeal, soybeans, baked potatoes, shrimp, clams, oysters, bran, beef liver, beef kidney, cream of wheat, spinach, raisins, cooked kale, dried apricots, dried prunes, walnuts, cashews, brazil nuts

Vitamin A

Recommended Daily Allowance: 770 mcg / 2565 IU

Dose in a standard one-a-day prenatal multivitamin: 4000IU

Importance: forms healthy skin, helps eyesight, and helps bone growth

Sources: raw or cooked carrots, dark leafy greens, sweet potatoes, boiled spinach, butternut squash, boiled kale, non-fat fortified milk, instant oatmeal, cantaloupe, raw spinach, eggs, frozen peas

Vitamin C

Recommended Daily Allowance: 85 mg

Dose in a standard one-a-day prenatal multivitamin: 60 mg

Importance: promotes healthy gums, teeth and bones and helps your body absorb iron

Sources: broccoli, tomatoes, strawberries, citrus fruits such as lemon, grapefruit, lime, orange, tangelo, tangerine, clementine

Why Eat Healthy?

KEY NUTRIENTS AND THEIR BENEFITS

Vitamin D

Recommended Daily Allowance: 200-400 IU

Dose in a standard one-a-day prenatal multivitamin: 400 IU

Importance: helps build strong bones and teeth

Sources: sunlight exposure, vitamin D fortified milk, fatty fish such as salmon

Vitamin B6

Recommended Daily Allowance: 1.9 mg

Dose in a standard one-a-day prenatal multivitamin: 2.5 mg

Importance: helps form red blood cells and helps your body use protein, fat, and carbohydrates

Sources: beef, liver, pork, ham, whole-grain cereals, bananas

Vitamin B12

Recommended Daily Allowance: 2.6 mcg

Dose in a standard one-a-day prenatal multivitamin: 8 mcg

Importance: maintains nervous system and is needed to form red blood cells

Sources: liver, meat, fish, poultry, milk (found only in animal products; vegetarians and vegans should take a supplement)

Folate

Recommended Daily Allowance: 600 mcg

Dose in a standard one-a-day prenatal multivitamin: 800 mcg

Importance: needed to produce blood and protein and helps some enzymes function, essential to prevent neural tube defects of the brain, spine, and spinal cord

Sources: fortified cereals, beef liver, orange juice, legumes, lentils, spinach, asparagus, northern beans, avocado, raw papaya, sweet corn, tomato juice, green peas, cooked broccoli, nuts

Why Eat Healthy?

YOUR FOOD CHART

	Foods I want to eat daily	Foods I want to eat weekly	Foods I want to add to my diet
Dairy			
Fruits			
Grain			
Protein			
Veggies			

Smart Choices

You will need **300** extra calories per day in your **first trimester** and **500** in your **second** and **third**.



If you are in your first trimester, **circle the smart choice** that equals 300 calories. If you are in your second or third trimester, circle the one that equals 500 calories. Choose options with the lowest amounts of solid fats or added sugars

300 CALORIE OPTIONS

1 slice whole-wheat bread with 1 tbsp peanut butter and jelly

2 Hershey's kisses

VS.

8 oz glass of 1% milk

20 oz regular soda (avg. large soda)



500 CALORIE OPTIONS

The healthy choices from the 500 calorie option give you:

- Protein (28 g)
- Fiber (11 g)
- Folate (31 mcg)
- Calcium (300 mg)
- Vitamin D (300 mg)
- Iron (2.5 Mg)

1 slice whole-wheat bread with 1 tbsp peanut butter and jelly

2 Hershey's kisses and 5 twizzlers

VS.

8 oz glass of 1% milk and a large banana with 12 almonds

20 oz regular soda (average large soda)

... The unhealthy options give you nothing but fat and added sugar.

Food Journal

	Sunday	Monday	Tuesday
Breakfast			
Lunch			
Dinner			
Snacks			
Total Calories			
Water			
Exercise			

Special Considerations

NAUSEA

Nausea and/or vomiting are common in the first trimester. Don't force yourself to eat or drink during these times. You may try:

- Eating small meals every two to three hours
- Drinking liquids separately from solid foods
- Eating before getting out of bed in the morning
- Eating foods such as saltines, toast, pretzels, and dry cereal

HEARTBURN

Heartburn is a common complaint of pregnancy. You may try:

- Eating small, frequent meals
- Avoiding lying down after meals
- Avoiding large meals at bedtime
- Taking over-the-counter antacids (like Tums®)

CONSTIPATION

Constipation is a common complaint of pregnancy. You may try:

- Drinking eight to twelve eight-ounce glasses of caffeine-free fluid
- Increasing the amount of fiber in your diet gradually
- Exercising regularly if approved by your doctor

ARTIFICIAL SWEETENERS

The effects of artificial sweeteners on the unborn baby are not clear. Try to limit these to no more than two servings per day.

ALCOHOL

Alcohol intake has been linked to Fetal Alcohol Syndrome. Therefore, it should be avoided throughout the pregnancy.

CAFFEINE

Pregnant women should limit caffeine-containing drinks to two five-ounce cups per day if approved by their doctor.

MERCURY

Avoid foods high in mercury and limit fish to 12 ounces or less per week. These include shark, swordfish, king mackerel, and tilefish.

Special Considerations

FOOD-BOURNE ILLNESSES

Listeriosis can occur anytime during pregnancy, though most commonly during the third trimester. Symptoms include mild flu-like symptoms, headaches, muscle aches, fever, nausea, and vomiting. Processed foods are at risk for contamination, so always heat meats to 160 degrees to be safe. Avoid:

- Unpasteurized products
- Raw sprouts and undercooked meats
- Sushi or other raw fish
- Soft cheeses such as feta, brie, etc., unless pasteurized
- Deli meat and hot dogs unless heated until steaming

OTHER ITEMS TO AVOID

While you are pregnant, you should also avoid tobacco, illicit drugs, and herbal remedies unless approved by your doctor.

DENTAL

Because pregnancy causes hormonal changes that put you at increased risk for periodontal disease and for tender gums that bleed easily, it is especially important to follow good oral hygiene practices, including brushing with a fluoride toothpaste twice a day and flossing daily.

PICA

It may be normal to crave a non-food item such as ice, dirt, ashes, and laundry starch. This is called pica. If it occurs talk with your doctor.

TOXOPLASMOSIS

Toxoplasmosis is caused by a parasite that is found in raw meat and cat feces. It may cause spontaneous abortion or death. Babies who survive may have serious eye or brain damage. Avoid raw meat and changing cat litter.

Special Considerations

SLEEP

During pregnancy, sleep plays an important role as your baby develops and for your own immune system. Research suggests that ample sleep may lead to a decrease in labor time. Yet as your body goes through physical and hormonal changes, challenges arise in regards to sleep. Avoiding large meals before bed and heartburn inducing foods may lead to quality sleep. Cutting back on late-night liquids may increase the quality and length of sleep.

During pregnancy, it is important to sleep on your side. Sleeping on your back may contribute to backpain and a decrease in circulation, and sleeping on your stomach becomes difficult as the pregnancy progresses. Many find sleeping on their left side, with their knees bent and a pillow between their legs to be a comfortable position.

HYDRATION

Drinking enough water during pregnancy helps you maintain healthy levels of amniotic fluid and helps your and your developing baby's kidneys remove toxins. Doctors recommend at least 8-12 glasses of water during pregnancy. Caffeinated drinks can increase water loss through increased urination. Keeping a bottle of water by your side at all times can help keep you hydrated!

EXERCISE

After checking with your doctor, light to moderate exercise during pregnancy may lead to relieving backaches, constipation, and bloating, as well as an overall increase in mood and quality of sleep. Contact sports or activities that increase the likelihood of falling should be avoided. Walking, could be a great option. Remember to discuss exercise with your doctor before working out, and to drink plenty of water before, during, and after exercising.

Questions and Notes

EXAMPLES:

Am I not gaining enough weight?

- Slow down and eat a healthy diet! You may need to add a few snacks.

Am I gaining too much weight?

- Eat sweets fewer than four times a week, limit fast food to no more than once a week, and avoid eating when you are not actually hungry.

More Information

OTHER RESOURCES

Langley Outpatient Nutrition Clinic

(757) 764-6789

Virginia Department of Health, Virginia WIC

(888) 942-3663

PRINT RESOURCES

Eating Expectantly, Bridget Swinney, August 1996

Healthy Food for Healthy Kids, Bridget Swinney,
September 1999

Protect Your Baby and Yourself from Listeriosis, USDA, April 2010

Nutrition During Pregnancy, American College of Obstetricians and
Gynecologists, August 2012

Your Baby's First Year, Steven Shelov, December 2004



WEBSITES

Listeriosis and Pregnancy: What's Your Risk?

→ www.foodsafety.gov/~fsg/f02liste.html

An Important Message for Pregnant Women about
Mercury in Fish

→ www.cfsan.fda.gov/~dms/admehg.html

Keep Your Baby Safe

→ www.cfsan.fda.gov/~dms/listeren.html

Nutrition Care Manual

→ www.nutritioncaremanual.org



Resources and Contributors

PRINT RESOURCES

Adapted from American College of Obstetricians and Gynecologists (2012). *Nutrition during pregnancy*. 409 12th Street, SW, PO Box 96902, Washington, D.C. 20090-6920

Adapted from WIC-0141 pamphlet, *Chart for fresh fruits and vegetables*. Virginia Department of Health

Cram, C., Drenth, R. S., (2004). Making your pregnancy a fit pregnancy. *Fit Pregnancy for Dummies*, NJ: Wiley Publishing Inc., (pgs 9-10).

Langley Outpatient Nutrition Clinic, (757) 764-6789, *Eating for two nutrition during pregnancy and breastfeeding*, (pgs. 1-13).

Swinney, B., Anderson, T., (1996-2000). All about gaining weight... and not gaining enough, managing morning sickness. Modified from *Eating Expectantly: A Practical and Tasty Approach to Prenatal Nutrition*, (1st-3rd ed.) NY: Meadowbrook Press/Simon & Schust.

Swinney, B. (1999). Iron up for good health. Modified from *Healthy Foods for Healthy Kids*, Meadowbrook Press.

WEBSITES

Adapted from fda.gov (2002). *An important message for pregnant women and women of childbearing age who may become pregnant about the risk of mercury in fish*. Retrieved November 13, 2012 from <http://www.fda.gov/OHMRS/DOCKETS/ac/02/briefing/3872b1.html>

Adapted from usda.gov (2007). *Protect your baby and yourself from listeriosis*. Retrieved November 14, 2012 from http://www.fsis.usda.gov/Fact_Sheets/Protect_Your_Baby/index.asp

Lowfatdietplan.com (2012). *Low fat diet plan low fat diet- weight loss for healthy living*. Retrieved on November 14, 2012 from <http://www.lowfatdietplan.com/bmi-chart>

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