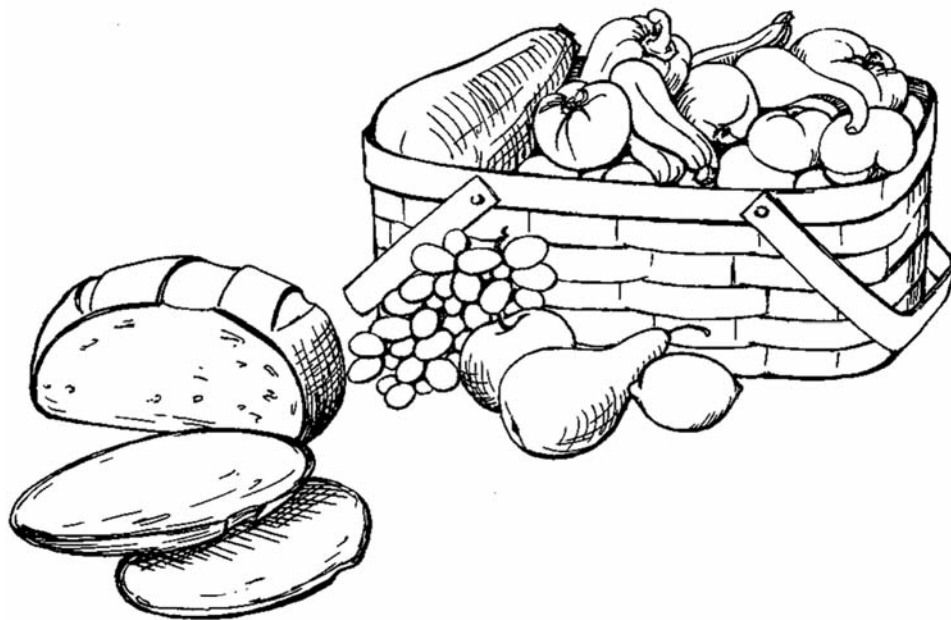


Nutrition Guide

Diabetes Before and During Pregnancy



*Sweet
Success.*

California Diabetes and Pregnancy Program

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Nutrition Guide:

Diabetes Before and During Pregnancy

California Diabetes and Pregnancy Program
(CDAPP) Sweet Success
2014

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INTRODUCTION

Your meal plan is a very important part of your blood sugar control. What you eat will affect your blood sugar (*glucose*) levels. Foods that raise your blood sugar contain carbohydrates. *Carbohydrates* are one of the three main building blocks of food, along with protein and fat. Starch is another term for the carbohydrates in foods. Examples of foods containing carbohydrates are bread, pasta, rice, cereal, fruit, starchy vegetables, milk and sweets.

Carbohydrates raise your blood sugar more than protein and fat. Therefore, you must be careful about the amount of carbohydrates you eat at your meals and snacks. Whichever type of diabetes you have, whether you need insulin or not, careful attention to the timing of your meals and snacks is essential for your health and that of your baby.

A normal fasting blood sugar for any pregnant woman is between 60 and 89. A fasting blood sugar is the first blood sugar of the day. It is taken soon after waking and before breakfast. One hour after any meal, a blood sugar of 130 or less is normal. Your health care team will explain what your blood sugar goals are.

This nutrition guide provides specific advice about food types and amounts that will help you reach your goal of optimal blood sugar control. You will be working with a *registered dietitian* who will help you meet your needs for calories, protein, vitamins and minerals during pregnancy.

The goal of this booklet is to aid in normalizing your blood sugars before and during pregnancy. Normal blood sugars help achieve a healthy pregnancy for you and your baby. Careful attention to blood sugar testing, meal planning, exercise and insulin (for some) will be necessary to achieve tight blood sugar control. The knowledge you gain from this comprehensive and intensive education program can improve your blood sugar control and general health for the rest of your life.

This nutrition guide may contain unfamiliar or new words. Most of these new words are medical terms and will be in *italics*. If a word is in italics, it has been defined in the glossary at the back of this guide. Refer to the glossary for further explanation of these terms.

“Sweet Success” is having a healthy baby and a healthy mom.

TYPE 1 OR TYPE 2 DIABETES: Diabetes that Exists Before Pregnancy

Diabetes diagnosed before pregnancy is classified into two main types: type 1 and type 2. *Type 1 diabetes* always requires taking *insulin*. *Type 2 diabetes* may require insulin or oral medication to help control blood glucose (sugar). Exercise and meal planning are essential in the management of both types of diabetes.

What Are the Risks of Having High Blood Sugar?

Diabetes can cause significant health problems for pregnant women and for their unborn children. The risk of birth defects, which occur early in pregnancy, can be much higher for women who have diabetes before pregnancy and who do not have good blood sugar control. It is believed that persistent *hyperglycemia* (high blood sugar) can harm the developing fetus and cause serious heart, spine, limb, and kidney defects. These defects are most likely to occur during the **first 8 weeks of pregnancy**.

For a woman with diabetes, it is essential to plan a pregnancy to correspond with the time of best blood sugar control. Without this careful plan, a woman may not know that she is pregnant until it is too late to prevent a possible birth defect.

Preparing for Pregnancy Before Conception

The good news is that birth defects can be prevented or greatly reduced. The key to preventing birth defects is careful control of blood sugar **prior to conception**. The State of California offers a unique program to women with diabetes which provides the information necessary to achieve very good blood sugar control before conception. The program is called "California Diabetes and Pregnancy Program (CDAPP) Sweet Success". It includes diabetes education, nutrition counseling, social work services and medical services.

A team of health care specialists work together with you to individualize your meal plan, insulin and exercise schedule to fit your special needs. Your chances for a healthy pregnancy and baby are increased with participation in the Sweet Success Program before conception.

What You Can Do if You are Already Pregnant

Although participation in the Diabetes and Pregnancy Program **before** conception is important, the program also greatly benefits women with diabetes who are already pregnant.

If you have type 1 diabetes, you may find that your insulin needs decrease during the first three months of pregnancy. This is due to *hormone* changes. As pregnancy progresses, however, you will need a greater amount of insulin in order to maintain your blood sugar at a desirable level.

If you have type 2 diabetes and have been controlling your blood sugar with meal planning and exercise, you may need to begin insulin therapy before or during pregnancy. If you take oral medications, you will need to switch to either insulin or another medication that is safe during pregnancy. Some oral medications are not used during pregnancy because they cross the *placenta* and could affect the developing fetus. Consult your physician before making any changes.

All these changes, if they are necessary, will be discussed with your specialized health care team: doctor, dietitian, nurse, social worker and other specialists.

Possible Complications for Women with Type 1 or Type 2 Diabetes

Maintaining normal blood sugar levels is important not only to prevent birth defects but also to avoid other complications for the mother and baby. The complications for the mother may include:

- ❖ high blood pressure
- ❖ kidney disease
- ❖ eye disease

Complications for the baby could include:

- ❖ premature birth
- ❖ birth defects of the heart, spine and kidney
- ❖ *insufficient growth* (small babies that weigh less than 5 pounds at birth)

For the newborn there is risk of:

- ❖ newborn *hypoglycemia* (low blood sugar)
- ❖ *jaundice* (yellow skin)
- ❖ respiratory problems
- ❖ other difficulties

GESTATIONAL DIABETES: Diabetes that Develops During Pregnancy

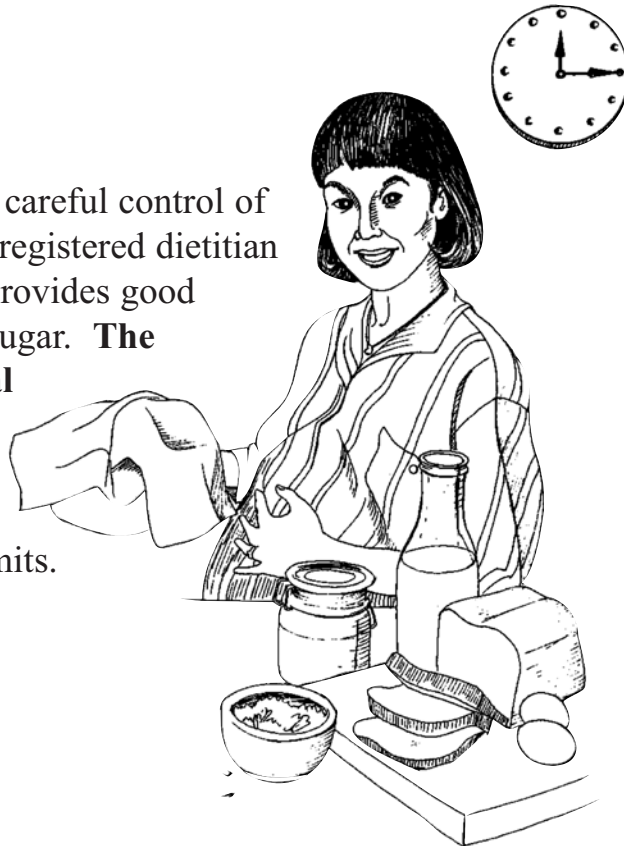
Diabetes that develops during pregnancy is called gestational diabetes. For most women, it begins during the second trimester. **Approximately 7% to 14% of all pregnant women will develop gestational diabetes.** This percentage is higher among certain ethnic groups such as African American, Asian American, East Indian, Latina/Hispanic and Native American.

The difference between this type of diabetes and the type that exists before pregnancy is that gestational diabetes is not likely to cause birth defects. In gestational diabetes, elevated blood sugar usually occurs **after** the first 8 weeks of pregnancy. It is high blood sugars in early pregnancy that most likely cause birth defects.

If you have gestational diabetes, your blood sugar is elevated in response to foods that you eat and to pregnancy hormones. Normally, the body changes food into a sugar called glucose. Insulin, which is a hormone that the body produces, helps to turn glucose into energy. With diabetes, either the body does not make enough insulin or it is not able to use insulin appropriately. As a result, the blood sugar goes up too high.

What Is the Treatment?

The treatment for gestational diabetes is the careful control of diet, blood sugar levels and weight gain. A registered dietitian (RD) will help you create a meal plan that provides good nutrition and helps you control your blood sugar. **The majority (80%) of women with gestational diabetes can control their blood sugar by diet alone.** However, some need to inject insulin or take oral medication in order to maintain their blood sugar within normal limits.



Possible Complications for Women with Gestational Diabetes

Careful control of your blood sugar and weight gain during pregnancy can help you avoid the following complications:

- ❖ difficult delivery
- ❖ high blood pressure
- ❖ *cesarean section* (surgical delivery)

Potential problems for the baby are:

- ❖ *macrosomia* (babies weighing more than 9 lb at birth)
- ❖ newborn hypoglycemia
- ❖ birth injury (such as broken collar bone)
- ❖ jaundice
- ❖ respiratory problems
- ❖ *premature birth* (birth before 36 weeks)
- ❖ *stillbirth* (baby dies before birth), if blood sugars are elevated frequently

How to Prevent Complications

There are many things you can do to prevent complications. You can help prevent complications by:

- ❖ planning your meals
- ❖ making good food choices
- ❖ exercising
- ❖ testing your blood sugar daily
- ❖ getting prenatal care early
- ❖ gaining weight slowly
- ❖ doing “kick counts” every day
- ❖ going to all your medical appointments
- ❖ following your health care team's advice

Remember, the team members of the California Diabetes and Pregnancy Program (nurses, dietitians, doctors, and social workers) are there to help you maintain normal blood sugar during pregnancy. By paying careful attention to your blood sugar testing and to the foods you choose, you can increase your chances of having a healthy baby and a normal delivery. Talk to your provider about your blood sugar goals.

Will My Blood Sugars be Normal after Delivery?

After the birth of your baby, your blood sugar will most likely return to normal. You may be asked to check your blood sugar at home to make sure that your blood sugars are back to an acceptable level. About 6 weeks after your baby is born, you will need to have your blood sugar tested at a lab with either a 2 hour *glucose tolerance test* or a *fasting blood glucose test*. If your blood sugar is back to normal, it is recommended that you have your blood sugar tested yearly. Usually this is done by checking your fasting blood sugar level at a lab.

Women who have had gestational diabetes are at higher risk for developing heart disease. Talk to your doctor about checking your blood for fats (called lipids) about 6 months after the baby is born or 6 months after you have finished breastfeeding.

Many women who develop gestational diabetes are overweight prior to pregnancy. **Your risk of developing diabetes in the next 5 to 10 years increases dramatically if you are overweight.** Therefore, weight loss after pregnancy can be very important for your future health.

Breastfeeding is encouraged. You may begin a slow weight reduction program while you are breastfeeding. Both meal planning and exercise are encouraged to help you lose weight and to reduce your risk of developing type 2 diabetes.

If you plan to have another baby, consult with health care professionals before conceiving. You are at risk for developing gestational diabetes in a future pregnancy. If you are pregnant, seek care very early in your pregnancy.



WEIGHT GAIN DURING PREGNANCY

Every pound that you gain during pregnancy is needed for a specific purpose. Most women gain between 25 and 35 pounds during pregnancy. Weight gain during pregnancy is variable and depends on many factors such as: your weight before pregnancy, your age, your activity level and what you eat.

If you are underweight before you become pregnant, it is recommended that you gain from 28 to 40 pounds during your pregnancy. If you begin your pregnancy weighing more than normal, it is recommended that you gain from 15 to 25 pounds. The quality of your diet is the most important thing. Your weight gain should be well controlled but not restricted. Weight loss is not recommended during any pregnancy, regardless of how much you weighed before pregnancy. In general, one should gain 10 pounds during the first 20 weeks of pregnancy. After 20 weeks, around ½ to 1 pound of weight gain every week is acceptable. Your individual weight gain goal is _____.

The following table shows how your body uses the weight you gain to have a healthy baby.

Weight Gain During Pregnancy*

Breast tissue	2.0 to 3.0 lbs
Blood volume	4.0 lbs
Placenta	2.0 to 3.0 lbs
<i>Amniotic fluid</i>	2.0 to 3.0 lbs
<i>Uterus</i>	2.0 to 5.0 lbs
Baby	8.0 lbs
Maternal fat stores for breastfeeding	5.0 to 9.0 lbs
Total weight gain	<hr/> 25.0 to 35.0 lbs

**Reference: WebMD www.webmd.com/baby/guide/healthy-weight-gain - accessed 6/21/13.

YOUR FOOD PLAN: Basic Principles

① SIMILAR FOOD INTAKE DAILY

A food plan can help you keep the amount of carbohydrates and calories you eat consistent at each meal and snack. Eating similar amounts of food at regular times each day helps you maintain good blood sugar control.

Be careful of eating too many carbohydrates at once:

- ◆ Carbohydrates raise blood sugar more than protein or fat.
- ◆ Foods in the Starch, Fruit and Milk Groups contain carbohydrates.
- ◆ Eat only 2 or 3 servings of foods from these groups at each meal/snack to start.
- ◆ Spread carbohydrate foods throughout the day.

② SNACKS BETWEEN MEALS

Your food will be divided into 3 meals and 3 snacks every day. Eating 6 small “meals” allows you to space out the amount of carbohydrates you eat so that your body can manage them better. The snacks are important to prevent low blood sugars between meals, especially if you use insulin.

The bedtime snack is usually larger than the other snacks. Plan to eat a bedtime snack, no more than 10 hours before the next breakfast. It should contain both protein and carbohydrate. This will help keep your blood sugar from going too low during the night.

Snacks are also important to prevent high blood sugars after meals. If you don't eat your snack you could overeat at the next meal. If you overeat your blood sugar may go too high.

③ REGULAR MEAL AND SNACK TIMES

You should eat a meal or snack about 2 to 3 hours apart, at the same time each day. Again, snacks are an important part of your meal plan. They help prevent low blood sugars between meals. Delaying or skipping meals and snacks may result in nausea and low blood sugar. Plan to carry a snack with you if you are going out.

④ DRINK PLENTY OF FLUIDS

Drink plenty of fluids: at least six 8-ounce glasses of water or caffeine-free, sugar-free beverages. Limit coffee to 2 cups daily. Do not have any alcoholic beverages.

⑤ ARTIFICIAL SWEETENERS

Use artificial sweeteners in moderation.

⑥ FOOD AND BLOOD SUGAR CONTROL

You must maintain tight blood sugar control before and during pregnancy. Paying attention to what and when you eat is something you can do to help. Discuss your blood sugar goals with your health care team.

FOOD GROUPS

Foods are divided into groups depending on the amounts of protein, fat, carbohydrate, and calories that they contain. Remember, carbohydrates raise blood sugar. These food groups are based on the “Exchange Lists” from the American Diabetes Association and the American Dietetic Association. The food groups and serving sizes are listed on the following pages.

Food Groups

Starch: Grain, Bread, Starchy Vegetables

Milk

Fruit

Vegetables

Protein: Meat, Poultry, Fish, Cheese

Fat: Animal or Plant

A meal plan will be developed, with your help, by a Registered Dietitian. Your meal plan will tell you how many servings from each group you may eat at each meal or snack. You will have many different foods from which to choose. The plan will provide enough calories, protein, vitamins and minerals for you and your baby.

STARCH

How Blood Sugar Could Be Affected

The best choices from this group for good blood sugar control include whole grains, bread, pasta and hot oatmeal. Beans and lentils, like other legumes, are rich sources of protein, but they also contain carbohydrates. For this reason they are classified within the Starch food group. Measure starchy foods carefully. Eat only the portion size that is recommended. If you eat too much of these foods at a meal or snack, your blood sugar will rise too much. Cold or instant cereals and instant noodles are not included in this list. Eating these foods usually result in higher blood sugar levels.

Nutritional Value

Grains, breads and starchy vegetables are high energy foods and good sources of B vitamins. Whole grains have higher levels of B vitamins, minerals, vitamin A and fiber than refined products like white bread. Read the labels on products for carbohydrate content and to avoid added sugars. Products such as whole wheat and corn may help prevent constipation.

Cooking Tips

- ☞ Include a salad with your meal to keep servings from the Starch group smaller.
- ☞ Add non-starchy vegetables to casseroles or pastas.
- ☞ Add lettuce, tomatoes and sprouts to sandwiches rather than eating more starchy food like chips.



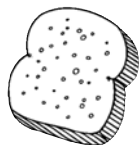
Starch

The amount of each food shown below is equal to **1 serving**. Each serving contains 15 grams of carbohydrate, 3 grams of protein, 0 grams of fat and 80 calories. Whole grains are high in fiber. Fiber slows down the absorption of carbohydrates.

A SERVING IS EQUAL TO:



Beans, dried
½ cup cooked



Bread, whole grain
1 slice



Bread, hamburger
or hot dog bun
½ (1 oz)



Corn, cob
½ large



Corn, kernel
½ cup



Crackers, saltine
6



English Muffin
½



Flour, wheat
3 Tbsp



Hot cereal (non instant)
½ cup cooked



Pasta or noodles
⅓ cup cooked



Peas
½ cup



Popcorn, air popped
3 cups



Potato,
baked or boiled
½ medium



Potato, mashed
(non instant)
½ cup



Rice
½ cup cooked



Squash, yellow,
acorn, butternut
1 cup cooked



Tortilla
corn, 1 small (6")
flour, 1 small (7-8")



Yams or Sweet potato
½ cup cooked

MILK

How Blood Sugar May be Affected

Milk and yogurt contain a type of natural sugar called lactose. More than 8 ounces of these foods at one time may raise your blood sugar too high and too quickly. Make sure you measure each serving carefully. Avoid chocolate milk made with sugar, regular fruit flavored yogurt, and frozen yogurt. These foods contain added sugar.

Nutritional Value

Milk and its products are excellent sources of calcium. Calcium is a necessary mineral for the growth of the baby's bones and teeth. Milk also contains vitamin D and protein. If you cannot digest milk, you need to consult with your dietitian in order to find other sources of calcium to supplement your diet.

Cooking Tips

- ☞ Add a little decaffeinated coffee or sugar-free cocoa to hot milk.
- ☞ Have fresh fruit with cheese.
- ☞ Make tomato soup with milk.
- ☞ Have a cheese quesadilla made with a corn tortilla.



Milk

The amount of each food shown below equals **1 serving**. Each serving contains approximately 15 grams of carbohydrates and 8 grams of protein. The amount of fat varies; whole milk contains more fat. An 8 ounce glass of whole milk has about 150 calories. A glass of non-fat milk contains 90 calories.

A SERVING IS EQUAL TO:



Fluid Milk (1%, 2%, lowfat or nonfat)
1 cup



Evaporated Milk (lowfat) 1 cup



Dry Milk (lowfat or nonfat)
 $\frac{1}{3}$ cup, dry



Yogurt
plain (lowfat or nonfat), $\frac{3}{4}$ cup
fruit flavor (sugar-free), $\frac{3}{4}$ cup

FRUITS

How Blood Sugar Could Be Affected

Fruits contain natural sugars such as glucose, fructose, and sucrose. When you eat large amounts at one time, your blood sugar may rise too high. Check the list of fruits on the next page. Make sure you eat the amount of fruit that equals one serving. Each fruit has a different portion size because water and sugar contents are different for each fruit. Juices are not recommended, except to treat very low blood sugar. The sugar in juice is absorbed very quickly. Read the labels on canned fruit. Be sure that sugar and/or corn syrup have not been added.

Nutritional Value

Fruits are good sources of vitamins A and C and fiber. Yellow fruits like apricot, cantaloupe, papaya and mango are very rich in vitamin A.

Cooking Tips

- ☞ Eat fresh fruits instead of canned whenever possible.
- ☞ Make a fruit salad.
- ☞ Make a baked apple (place an apple in a pan with a small amount of water, add cinnamon for flavor, bake at 350° for about 15 - 20 minutes).



Fruits

The amount of fruit shown below is equal to **1 serving**. Each serving contains 15 grams of carbohydrates, 0 grams of protein, 0 grams of fat and 60 calories. Good sources of vitamin C are noted by ★. Good sources of vitamin A are noted by ▲.

A SERVING IS EQUAL TO:



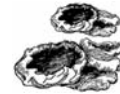
Apple
1 small



Applesauce,
unsweetened
½ cup



Apricots, fresh ▲
4 small



Apricots, dried ▲
8 halves



Banana
1 small



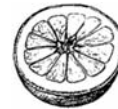
Blueberries,
¾ cup



Cantaloupe ★▲
1 cup



Cherries, fresh
12



Grapefruit ★
½ large



Grapes
17 small



Kiwi ★
1 large



Mango ★▲
½ small



Nectarine
1 small



Orange ★
1 small



Papaya ★▲
1 cup



Peach
1 medium



Pear
½ large



Pineapple, fresh
¾ cup



Plums, fresh
2 small



Prunes
3 medium



Raisins
2 Tbsp



Raspberries, fresh
1 cup



Strawberries, fresh ★
1 ¼ cup



Tangerine ★
2 small



Watermelon
1 ¼ cup

VEGETABLES

How Blood Sugar Could be Affected

The vegetables in this group contain small amounts of carbohydrates. They are made up of mainly water and fiber. The vegetables on the next page do not raise your blood sugar. When eaten with starchy foods at a meal, they may help to slow the rise in your blood sugar.

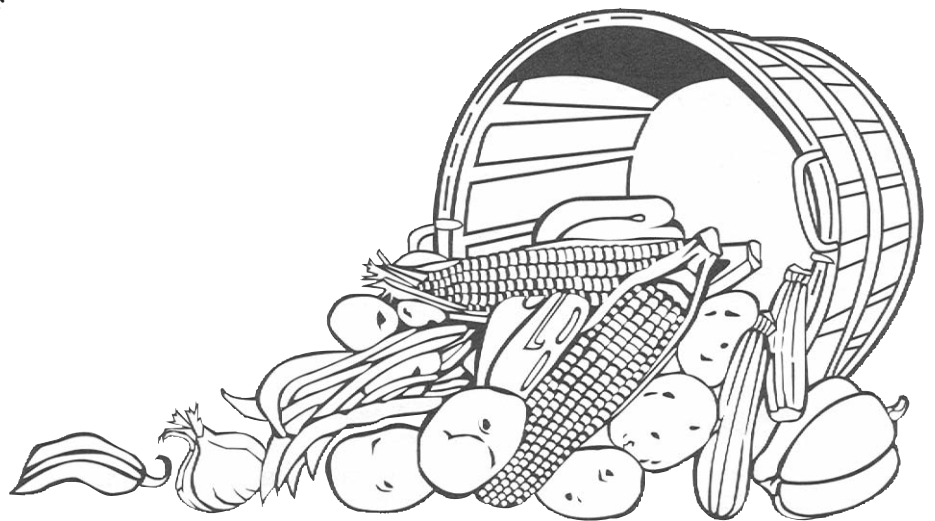
Some vegetables are high in starch. Examples of starchy vegetables are: corn, potato, sweet potato, dry peas and winter squash. Their starch content is as high as that of breads and grains. Starchy vegetables must be eaten in the recommended amounts.

Nutritional Value

Vegetables contain many vitamins and minerals. Dark green leafy vegetables like romaine lettuce, spinach, broccoli and asparagus are very rich in *folic acid/folate*, vitamin A and magnesium. Spinach and carrots are especially rich in vitamin A. Vegetables like tomato, chilies, and cabbage are rich in vitamin C. Try to eat at least one serving of dark green leafy vegetables a day. They contain folate which is important for the growth and development of your baby. Fresh or frozen vegetables are recommended instead of canned ones. The high fiber content of most vegetables will help you avoid constipation.

Cooking Tips

- ☞ Cook in a small amount of water (about 5 to 7 minutes) to preserve the nutrients in the vegetables, or use a microwave oven.
- ☞ Add vegetables to soups.



Vegetables

The amount of each food shown is equal to **1 serving**. Each serving contains 5 grams of carbohydrates, 2 grams of protein, 0 grams of fat and 25 calories. The vegetables that are rich in vitamin C are marked with a ★. Good sources of vitamin A are noted with a ▲.

A SERVING IS EQUAL TO: ½ cup cooked or 1 cup raw



Beets



Bell pepper ★
(red or green)



Brussel sprouts ★



Cabbage ★



Cauliflower ★



Carrots ▲



Celery



Chilies ★ ▲



Cucumber



Eggplant



Green beans



Jicama, ½ cup



Okra



Onion



Turnip



Squash, summer



Tomato ★ ▲



V-8 Juice ★ ▲



Zucchini

===== **VEGETABLES RICH IN FOLACIN: Select one of these daily during pregnancy** =====



Asparagus



Broccoli ★



Green ▲
mustard or collard



Parsley ★



Lettuce, romaine



Spinach ▲

PROTEIN

How Blood Sugar Could be Affected

Foods that contain protein do not raise blood sugar very much. Protein helps to maintain stable blood sugar levels, especially during the night. A rich source of protein is usually included at all meals and at the bedtime snack. Protein helps prevent rapid rises in blood sugar levels because the body digests protein more slowly. Protein also keeps you full longer. Be careful to avoid meats and fish which are breaded. The deep fried coating could raise your blood sugar. Meats served with gravies and cream sauces may also raise your blood sugar above normal levels.

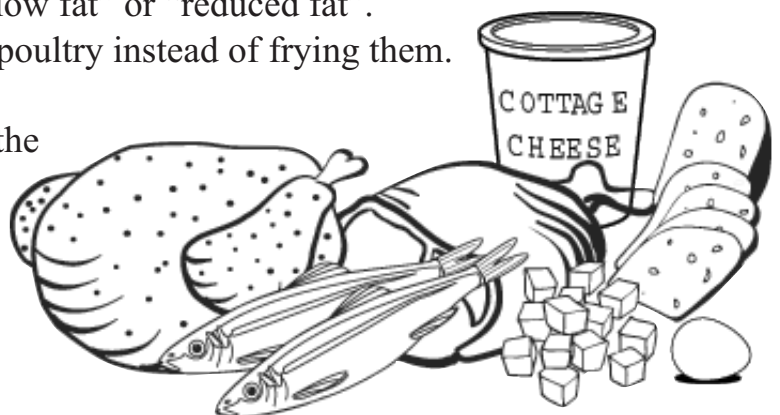
Note: Although beans and legumes are generally considered protein foods, in diabetes meal planning they are included in the starch group due to their carbohydrate content.

Nutritional Value

Protein foods also contain B vitamins, iron, zinc and phosphorus. The growing baby needs these nutrients in order to develop muscles and healthy skin, and for proper growth. Red meats and the dark meat of poultry are the best iron sources. Fish, cheese, and eggs contain less iron, but they are excellent sources of protein and other nutrients.

Cooking Tips

- ☞ Choose cheeses which are labeled “low fat” or “reduced fat”.
- ☞ Bake, broil or sauté fish, meats and poultry instead of frying them. Avoid deep fried foods.
- ☞ Trim the fat from meat and remove the skin from poultry before cooking them.



Protein

The amount of each food shown below equals **1 serving**. Each serving contains 0 grams of carbohydrates and 7 grams of protein. The amount of fat is variable. The calories in a serving could range from 35 to 100, depending on the fat content. In general, foods from animal sources are higher in fat. Foods with less fat content are: lowfat cheeses, skinless chicken and “good” or “choice” grades of beef like round, sirloin or flank.

A SERVING IS EQUAL TO: 1 ounce



Beef, roast,
steak, ground



Pork chop



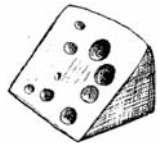
Ham boiled,
Canadian



Lamb



Chicken or
Turkey



Cheese (hard),
swiss, jack, cheddar,
mozzarella



Fish ‡
salmon, sole,
snapper



Tuna/Chicken/Turkey
canned in water



Shellfish, crab, clams,
lobster, shrimp

‡ Do not eat shark, swordfish, king mackerel, or tilefish because they contain high levels of mercury. Eat up to 12 ounces a week of a variety of fish and shellfish that are lower in mercury.

A SERVING IS EQUAL TO: the quantity listed below



Cheese (soft),
cottage, ricotta
(lowfat) ¼ cup



Egg, 1 whole
or 2 whites



Peanut Butter
(natural, unsweetened)
1 Tbsp



Sardines
2 medium



Tofu, soy bean curd
½ cup

FATS AND OILS

How Blood Sugar Could Be Affected

Fats do not contain sugar or carbohydrate, so they don't increase blood sugar levels. Fats may help slow digestion in the stomach. This helps prevent the sugar in your blood from rising very quickly after a meal. Use less animal fat. A diet low in fat is recommended for most adults.

Nutritional Value

Small amounts of fats are necessary for good health. However, fats are concentrated sources of calories. Too many calories can make you gain too much weight. If you gain too much weight, it may be more difficult to control your blood sugar levels. Some fats are healthier than others. Vegetable sources of fat are the most desirable for a healthy heart. For example, canola, olive and most vegetable oils are better choices. Animal sources of fat should be used less often. A diet low in fat is advisable for most adults.

Cooking Tips

- ☞ Use small amounts of oil when cooking.
- ☞ Use oil made from vegetables instead of animal fats such as lard.
- ☞ Boil, bake or broil foods rather than frying them.



Fats and Oils

The amount of each food shown below is equal to 1 serving. Each serving contains 0 grams of carbohydrates, 0 grams of protein, 5 grams of fat and 45 calories.

A SERVING IS:

Vegetable Fats (unsaturated)



Avocado
2 Tbsp



Mayonnaise
1 tsp regular
1 Tbsp reduced fat



Margarine
1 tsp regular
1 Tbsp reduced fat



Nuts
10 peanuts **or** 2 whole pecans
6 almonds **or** 2 whole walnuts
or 1 Tbsp sunflower seeds



Olives
8 large black or
10 large green



Oil (olive, corn, safflower, peanut, canola, sunflower)
1 tsp



Salad dressing
1 Tbsp regular
2 tsp Mayonnaise based

Animal Fats (saturated)



Bacon
1 slice



Butter
1 tsp



Cream (half and half)
1 tsp



Cream cheese
1 Tbsp regular
1 ½ Tbsp reduced fat



Sour cream
2 Tbsp regular
3 Tbsp reduced fat

FREE FOODS:

Eat as much as you desire of these foods



Boullion broth
(consomme)*



Chiles



Cilantro



Coffee
(decaffeinated)



Diet Soda ‡



Dill Pickle*



Drink Mix
sugar-free ‡



Garlic



Herbs/Spices:
oregano, dill, basil,
cumin



Jell-O®
sugar-free ‡



Lemon Juice



Lettuce



Mushrooms



Mustard



Radishes



Salsa, Chile



Soy Sauce*



Tea, herb



Vinegar
(unsweetened)

* These foods contain a lot of sodium or salt and may not be advised for some people.

‡ Some foods and drinks are sweetened with artificial sweeteners. If you use artificial sweeteners, do so in moderation. Discuss the definition of “moderation” with your dietitian.

Sweets, Desserts & Other Carbohydrates: Talk to your dietitian about eating these foods.

Many foods contain added sugar. Sugar may appear under different names on food labels. If any of the following words are among the first four (4) items in the “ingredients” list, there may be too much sugar in that food. The names are: corn syrup, corn sweetener, honey, molasses, dextrose, fructose, lactose and maltose.



Bagels



Candy



Coffee Creamer



Custard/Pudding



Donuts



Drink Mixes



Frozen yogurt,
Ice cream, regular



Fruit drink



Fruit juice (all)



Honey



Regular Jello-O



Kool-aid



Jelly, jam, marmalade



Soda



Sugar, white or
brown



Syrup, corn, maple
Molasses

OTHER FOODS THAT CONTAIN SUGAR



Baked Beans, canned



BBQ Sauce



Cold cereal,
Wheat or corn flakes



Cakes, cookies, pies



Fruits, canned



Chocolate milk



Granola



Muffins



Peanut Butter sweetened



Teriyaki sauce



Spaghetti sauce, canned
(some brands)

READING LABELS

What to Look for in Reading Food Labels

Carbohydrate is the part of food that raises your blood sugar the most. Starch and sugar in foods are carbohydrates. You can control your blood sugar by limiting how much carbohydrate you eat at one time. One way is to count the number of servings from food groups at each meal and snack. Another way is to count the grams (g) of carbohydrates in your food. Your dietitian will help you with this. A gram is a very small measure of weight. Packaged food products use the gram measure for their labels. Below are steps on what to look for in reading food labels.

Step 1. How much is one serving?

The first thing to read on the label is the serving size. On this label, one serving is ½ cup. Ignore the “95g” after the serving size. This is the weight of the food, not the carbohydrate.

Step 2. How many grams (g) of carbohydrates are in one serving?

On the food label, look for “Total Carbohydrates.” On this label, ½ cup has 14 grams of carbohydrates. The “Total Carbohydrate” number includes the Fiber and Sugar grams listed below it so you will not have to count them separately.

Step 3. How much am I going to eat?

If you decide to eat 1 cup of this food instead of ½ cup, you have to double the information on the label. For example, one cup of this food will have 160 calories and 28 grams of “Total Carbohydrates”.

Step 4. How can label information help me control my blood sugar?

Your Registered Dietitian can help you with label reading and your meal plan. Whether you are using the food groups in this book or count the carbohydrates you eat each day, food labels can help you control your blood sugar and have a healthy baby.

Nutrition Facts	
Serving Size ½ cup (95g)	
Servings per Container 4	
Amount Per Serving	
Calories 80	Calories from Fat 20
% Daily Values	
Total Fat 2g	3%
Saturated Fat 0 g	0%
Polyunsaturated Fat 1 g	
Monounsaturated Fat 0 g	
Cholesterol 0 mg	0%
Sodium 250 mg	10%
Total Carbohydrates 14 g	5%
Dietary Fiber 4 g	16%
Sugars 2 g	
Protein 3 g	

HOW TO TREAT LOW BLOOD SUGAR

If you are taking insulin, glyburide, or another oral agent to control your blood sugar, you are at risk for having low blood sugar. Your blood sugar may go down too low if: you delay or skip a meal or snack, do not eat enough, exercise too much, drink alcohol without eating, or inject too much insulin.

The symptoms of low blood sugar are: headache, dizziness, drowsiness, disorientation or confusion, cold sweats, irritability and difficulty speaking. **If you have any of these symptoms, check your blood sugar.**

Remember: if you take insulin, glyburide, or another oral agent, always carry foods that contain rapidly absorbed sugars such as hard candy, juice, raisins or glucose tablets.

If your plasma blood sugar is:


Less than 70 mg/dl low	71 mg/dl or above normal
Drink 4 ounces (½ cup) of juice or one of the choices on the opposite page	You do not need to eat. Your blood sugar is normal.
Test your blood sugar 15 minutes later.	Try to rest and drink water. The symptoms of low blood sugar will pass.
If your blood sugar is still less than 65 mg/dl, drink another 4 ounces.	Take another blood sugar test in 15 minutes to be sure that you do not have a blood sugar level less than 65 mg/dl.
To avoid having another low blood sugar reaction, eat your next meal or snack early	Look for reasons for your symptoms. Record how you are feeling, the time of day and what you were doing. If you have symptoms of low blood sugar often, but your blood sugar is normal, tell your doctor.
Choose foods that have protein and starch such as half a ham sandwich or crackers and cheese	
Tell your doctor or someone else on your health care team that you had a low blood sugar as soon as possible.	A fasting blood sugar of 60 to 89 mg/dl is normal during pregnancy. A level of 100 to 129 mg/dl one hour after a meal is also normal during pregnancy.


SOURCES OF RAPIDLY ABSORBED SUGAR: Use them to treat low blood sugar levels

The following foods should be eaten only to treat an insulin reaction. Use these foods if your plasma blood sugar level is less than 70mg/dl, or when you cannot eat your normal meals due to illness. If you eat these foods when your blood sugar levels are high or normal it may result in hyperglycemia (high blood sugar levels). Having frequent hyperglycemia can be harmful to you and your baby.


Each item listed here contains 15 grams of carbohydrates.

Fruit Juices	
apple juice	½ cup
orange juice	½ cup
grapefruit juice	½ cup
grape juice	½ cup
pineapple juice	½ cup
prune juice	⅓ cup



Candy and other Sweets		
	Gumdrops	18 average
	Honey	1 tablespoon
	Jam/Jelly (regular)	1 tablespoon
	Jell-O® (regular)	⅓ cup
	Lifesavers®	6 pieces
	White sugar	1 tablespoon
	Starbursts®	4 pieces

Sodas, NOT sugar free	
Coca Cola® or Pepsi®	½ cup (4 ounces)
7-Up® or Sprite®	½ cup (4 ounces)



Glucose Tablets	
Glucose Tablets	15 grams total
	(Read the label)

SAMPLE SNACKS

For many women, eating 3 meals and 3 snacks is a challenge. A common question is "What can I have for a snack?" Below are sample snack ideas. Remember to discuss what you have been eating and your blood sugar levels with your registered dietitian. The snack size may change.

Sample Daytime Snacks:

½ toasted english muffin with 2 Tbsp natural style peanut butter
1 quesadilla (1 small tortilla and 1 ounce cheese)
1 cup melon with ¼ cup cottage cheese
Apple slices (1 small apple) with 2 Tbsp natural-style peanut butter
2 Tbsp sunflower seeds and 2 Tbsp raisins
½ turkey or ham sandwich
6 saltine crackers with 1 ounce tuna

Sample Bedtime Snacks:

⅔ cup rice with 1 ounce meat, chicken or fish
1 small tortilla with 1 ounce meat and ½ cup beans
1 ham or turkey sandwich
1 cup sugar-free yogurt and ½ peanut butter sandwich
1 cup milk and ½ toasted English Muffin with melted cheese and sliced tomatoes
1 cup milk with a mini sandwich (1 ounce dinner roll and 1 ounce sandwich meat or cheese)

COMBINATIONS OF FOOD GROUPS USED TO PREPARE FOODS

Meals often include different types of foods. A few dishes are described below along with the number of servings from the various food groups. This list will help you use the groups to plan your meals.

- ◆ Tostada (tortilla with meat and lettuce)

1 starch	1 protein	1 vegetable
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- ◆ Taco (tortilla with meat or chicken, lettuce, and tomato)

1 starch	1 protein	1 vegetable
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- ◆ Lasagna (a portion is 4 by 4 inches) (Pasta, cheese, and tomato sauce)

2 starch	2 protein	1 vegetable
----------	-----------	-------------

- ◆ Chile Con Carne and Beans (1 cup)

2 starch	2 protein	2 fat
----------	-----------	-------

- ◆ Hamburger with Cheese (mozzarella)

2 starch	4 protein	3 fat
----------	-----------	-------

- ◆ Quesadilla (tortilla with cheese)

1 starch	1 protein	1 fat
----------	-----------	-------

- ◆ Bean burrito, homemade (flour tortilla, beans and cheese)

3 starch	2 protein	2 fat
----------	-----------	-------

California My Nutrition Plan for Gestational Diabetes

This is my plan until I meet with a registered dietician (RD) for my personal meal and exercise plan.

EVERY day, I will:

- Eat 3 meals and 3 snacks, 2 to 3 hours apart.
- Eat my bedtime snack so that no more than 10 hours pass before I eat breakfast the next day.
- Drink plenty of fluids. I will choose caffeine-free, sugar-free beverages. I will limit coffee to 2 cups daily & not drink alcohol.
- Limit artificial sweeteners to 1 - 2 servings a day.
- Try to walk for 10 - 15 minutes after each meal, especially breakfast.

Include protein and carbohydrates at each and snack.

Eat at least 175 grams (g) of carbohydrates a day. For the amount of carbohydrates in one serving of food, see below:

◆ **Non-starchy Vegetables** = 5g ◆ **Protein** = 0g ◆ **Grains, Beans and Starchy Vegetables** = 15g ◆ **Fruit** = 15g ◆ **Dairy** = 15g

As a sample, meals may look like this:

Breakfast

Eat 15g carbohydrates from the Grains group

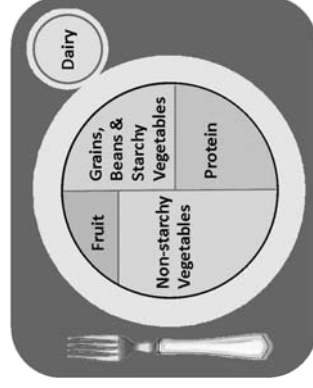
- Include:**
- ◆ 1-2 servings Protein
 - ◆ unlimited servings of non-starchy Vegetables

Do not eat Fruit, yogurt or drink milk.

Example of a breakfast:

One egg omelet with cheese & vegetables and one slice toast

Lunch and Dinner



0-1 serving Fruit

unlimited servings non-starchy Vegetables

0-1 serving milk or yogurt

2 servings Grains, beans or starchy vegetables

2-3 servings Protein

Eat 45g carbohydrates, not including non-starchy vegetables

- ◆ Choose only one serving fruit, milk or yogurt at lunch and at dinner

Snacks

Eat 15g-30g carbohydrates from Fruit, Grains, or Dairy group

Include:

- ◆ At least 1 serving Protein with every snack
- ◆ unlimited servings of non-starchy Vegetables

Examples of snacks:

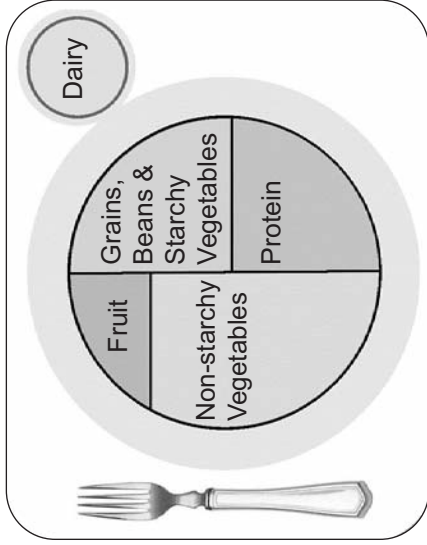
- ◆ 1 small tortilla + 1 ounce cheese
- ◆ 2 rice cakes + celery + 2 tablespoons nut butter
- ◆ ½ banana + 24 almonds

California

MyPlate for Gestational Diabetes

When you are pregnant and have diabetes, you have special nutrition needs. Use MyPlate for Gestational Diabetes to help you manage your blood sugar. This will help keep you and your baby healthy. Every day, eat the number of servings/choices of food shown below. Talk to a registered dietitian (RD) to develop a meal and exercise plan that will meet your needs.

⚠️ Limit Your Carbohydrates. When you have gestational diabetes, the type and amount of carbohydrates matter. Vegetables, Grains, Fruits, and Dairy contain carbohydrates. Some have more and some have less. Eating too many or the wrong type of carbohydrate may raise your blood sugar. Avoid foods with added sugar or white flour, such as cookies, candy and soda.



Vegetables

Eat non-starchy vegetables.

Use fresh, frozen or low-sodium canned vegetables.

For diabetes, starchy vegetables like potatoes, sweet potatoes, yams, peas, corn & winter squash count as a Grain, not a Vegetable.

Daily Amount

- 6 or more of these choices:
- 2 cups raw leafy vegetables
- 1 cup raw vegetables
- ½ cup cooked vegetables



5 grams (g) carbohydrate per serving

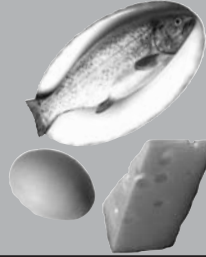
Protein

Choose lean protein

Avoid bacon, hot dogs & bologna.

Daily Amount

- 6 or more of these choices:
- 1 ounce fish, poultry, lean meat, or cheese
- ¼ cup cottage cheese
- 1 egg
- 1 ounce nuts
- ½ cup tofu
- 2 Tablespoons nut butter



0 g carbohydrate per serving

Fruits

Eat unsweetened fruits of all colors.

Do not drink fruit juice. Avoid fruit at breakfast. Limit dried fruit to ¼ cup a day.

Daily Amount

- 2 of these choices:
- 1 small apple
- 17 small grapes
- 1 cup papaya
- ½ banana



15 g carbohydrate per serving

Grains

For diabetes, beans & starchy vegetables count as Grains.

Eat 100% whole grains.

Avoid cold breakfast cereals. Avoid instant rice, noodles & potatoes.

Daily Amount

- 7 of these choices:
- 1 slice whole wheat bread
- ½ cup potato or yam
- 1 small whole grain tortilla
- ½ cup cooked dried beans, non-instant cereal, corn or peas
- 1/3 cup cooked pasta, rice



15 g carbohydrate per serving

Dairy

Choose only pasteurized plain milk or yogurt.

For diabetes, cheese is in the Protein group. Do not eat yogurt or drink milk at breakfast.

Daily Amount

- 3 of these choices for women or
- 4 of these choices for teens:
- 1 cup 1% or fat free milk
- 1 cup soy milk with calcium
- ¾ cup of plain yogurt



15 g carbohydrate per serving

Fats & Oils

- Use healthy plant oils like canola, safflower & olive oil for cooking.
- Read labels to avoid saturated & trans fats (hydrogenated fats).
- Avoid solid fats such as lard, shortening & butter.

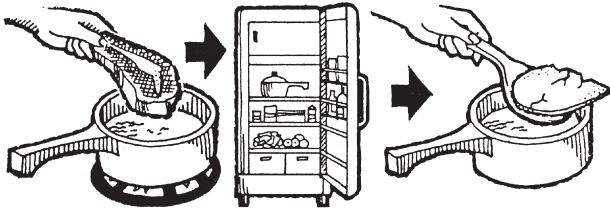
- Fish has healthy fats. Eat cooked fish at two meals each week.
- Limit oils to 6 teaspoons each day.

0 g carbohydrate per serving

COOKING INSTRUCTIONS

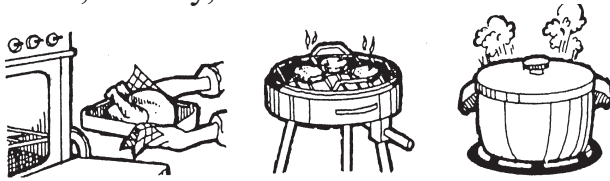
From: Eating Well to Live Better, California Diabetes Control Program

Homemade broth:



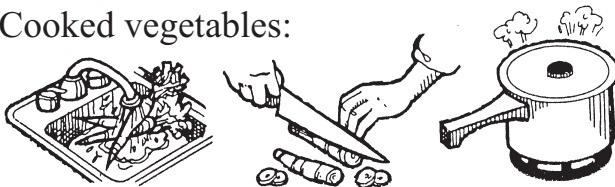
Boil a piece of meat, chicken or turkey with the bone 1 to 2 hours or until the meat is well cooked. Remove the meat from the broth and place broth in refrigerator until the fat hardens on top. Remove the fat. The broth is now ready to make soup and other dishes.

Meats, Poultry, Fish:



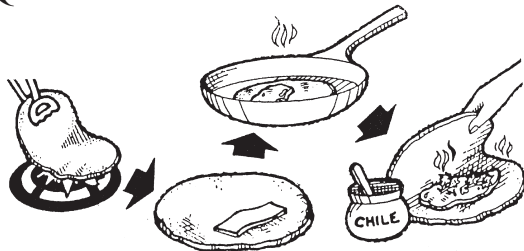
Bake, boil, microwave or barbecue. Do Not Fry!

Cooked vegetables:



Wash the vegetables, cut them into small pieces, and place them in a pot with very little water (half an inch on the bottom). Cook them for 5 to 7 minutes or until tender.

Quesadillas:



For each quesadilla, brown a tortilla over a flame or on a griddle. Place a slice of cheese on half of the tortilla, fold it and heat it in an ungreased pan until the cheese melts. Remove from the pan, open and add salsa and fresh cilantro to taste.

MY MEAL PLAN

Plan for: _____ Registered dietitian: _____ Phone: _____
 Date: _____ Calories: _____ Carbohydrate: _____ Protein: _____ Fat: _____

TIME	Meal Plan # of Servings/Food Group	EXAMPLES	EXAMPLES
Breakfast	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		
Lunch	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		
Dinner	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		

MY MEAL PLAN

Plan for: _____ Registered dietitian: _____ Phone: _____
 Date: _____ Calories: _____ Carbohydrate: _____ Protein: _____ Fat: _____

TIME	Meal Plan # of Servings/Food Group	EXAMPLES	EXAMPLES
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Snack	_____ _____ _____		
Dinner	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		

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TIME	Meal Plan # of Servings/Food Group	EXAMPLES	EXAMPLES
Breakfast	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		
Lunch	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		
Dinner	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		

MY MEAL PLAN

Plan for: _____ Registered dietitian: _____ Phone: _____
 Date: _____ Calories: _____ Carbohydrate: _____ Protein: _____ Fat: _____

TIME	Meal Plan # of Servings/Food Group	EXAMPLES	EXAMPLES
Breakfast	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		
Lunch	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		
Dinner	Starch _____ Milk _____ Fruit _____ Vegetable _____ Protein _____ Fat _____		
Snack	_____ _____ _____		

NOTES

GLOSSARY

AMNIOTIC FLUID - The fluid which surrounds the baby in the uterus.

CARBOHYDRATES - Carbohydrates are a component of food, along with protein and fat. They are also referred to as “starch” or “starchy foods”. The Starch, Milk and Fruit food groups contain mostly carbohydrates.

CESAREAN SECTION - A delivery of the baby through a surgical incision in the abdomen and uterus.

FASTING BLOOD GLUCOSE TEST - The lab test done to check blood sugar levels. Fasting means that this test is done before you have anything to eat.

FOLACIN/FOLATE/FOLIC ACID - These are different names for the same B-vitamin in foods. In this book, this B vitamin will be referred to by the name “folate”. The need for folate is particularly high during pregnancy in order for the baby to develop properly. Good food sources of folate include dark green leafy vegetables, orange juice, and cooked dried beans.

GESTATIONAL DIABETES (GDM) - GDM is like type 2 diabetes. It is called gestational diabetes because it is discovered during pregnancy. GDM occurs when the placenta makes high levels of substances (hormones) that block the body’s ability to use it’s own insulin well. The result is a need for the woman’s body to make more insulin than usual to get sugar into the cells and out of the blood stream. Some women can not make more insulin when there are high levels of hormones in the blood stream (after about 24 weeks of pregnancy). For these women, sugar stays in the blood stream in an amount that is higher than normal. When the mother’s blood sugar is high, this extra sugar goes directly to the baby. But, the mother’s insulin can not. The extra sugar that goes to the baby causes the baby to make a lot more of it’s own insulin than it should to use up that sugar. Now the baby has extra sugar AND extra insulin. Insulin takes the extra sugar and makes it into fat. The fat made in this way is deposited around the baby’s belly and shoulders causing macrosomia (see **MACROSOMIA** on page 29). Later in the baby’s life it can lead to central obesity, cardiovascular disease and diabetes - also known as Metabolic Syndrome. See page 4 in this booklet for more information.

GLUCOSE - A form of sugar which is used by the body for energy and comes from food.

GLUCOSE TOLERANCE TEST - The lab test done to diagnose gestational diabetes and diabetes after the baby is delivered. This test is done in a lab and requires the women to drink a sweet liquid.

HORMONES - Chemicals produced by different organs in the body. Each hormone has a specific body function (job) such as growing, pregnancy, and defending the body.

HYPERGLYCEMIA - Blood sugars above normal. High blood sugars are harmful to the mother and baby. The normal blood sugar levels in pregnancy vary with the time of day and if before or after meals.

HYPOGLYCEMIA - Low blood sugar of varying severity, usually defined as less than 70 during pregnancy. In the nonpregnant state, low blood sugar is usually anything less than 50 - 60. Low blood sugar is harmful to the mother and baby and must be avoided. Regular meals, snacks, exercise and use of medication or insulin will help prevent low blood sugars.

INTRAUTERINE GROWTH RESTRICTION (IUGR) - IUGR occurs when a baby does not grow at a normal rate inside the mother and has a birth weight less than 10 percent of the weight of other babies that age. These babies may have a high risk of diabetes later in life.

INSULIN - Insulin is a hormone made by the pancreas. Insulin lowers blood sugar and allows for the use of sugar for energy.

JAUNDICE - Most newborns normally have some yellow tinge to their skin from the second to fifth day after birth. This is caused by a build up of bilirubin (the yellow substance) under the skin. This happens because the newborn can not yet get rid of bilirubin. Bilirubin results when red blood cells the newborn no longer needs breakdown. If the yellow tinge is severe or it lasts a long time, it must be treated to prevent complications.

MACROSOMIA - Refers to a baby whose belly and shoulders have more fat than the average baby. Often, these babies weigh more than 9 pounds at term (40 weeks). Macrosomia at birth may be associated with low blood sugar for the baby after birth. During delivery there can be physical injury to the baby's face, shoulders and collar bone. Later in life there can be health problems with high blood pressure, obesity, diabetes and abnormal fats.

PLACENTA - The organ that attaches to the inside wall of the uterus. This organ provides a blood supply and nutrients from the mother to the unborn baby.

PRETERM BIRTH - Birth of the baby before 37 completed weeks of pregnancy. Women with diabetes may experience delivery before full term (40 weeks) due to complications of diabetes.

REGISTERED DIETITIAN - A Registered Dietitian (also referred to as "RD") is an expert on: food, your body's need for nutrients, and how you should eat when you have medical problems. The RD can help you choose the best foods and meal plan to help you and your baby stay healthy.

STILLBIRTH - When a baby dies after the 20th week of pregnancy and before delivery. The exact cause is not known, but some are associated with sugars in the mother's blood that are out of control.

TYPE I DIABETES - Autoimmune disease in which the body no longer makes insulin (a substance needed to help our cells use sugar). Insulin must always be injected to use the sugar in the blood stream. The cause is not exactly known.

TYPE 2 DIABETES - Type 2 diabetes happens when the insulin that the body makes can not be used correctly by the cells. People with type 2 diabetes also build up a lot of sugar in their blood. Exercise, maintaining a healthy weight, and making proper food choices are needed to keep blood sugar levels normal. Pills that make insulin work better or cause the body make more insulin may be needed. Some people need to take insulin injections.

UTERUS - The organ (also called the womb) where the unborn baby grows.