

Nutrition

Eating Healthy with Diabetes

Healthy eating means:

- ✚ Making good food choices
- ✚ Eating the correct portion size
- ✚ Eating three meals a day
- ✚ Eating a balance of starches, vegetables, fruit, milk, meat and fat each day.



- ✚ Knowing how many calories your provider wants you to have in your daily plan. This is just as important as knowing how much medicine you should take
- ✚ If you do not know how many calories you should eat each day make a note to ask your provider at your next visit

To be able to work on food plans in class here is a quick way to find out how many calories to eat each day. Multiply your weight x 10 and that is the number of calories.

Example: you weigh 180 pounds $180 \times 10 = 1800$ calories

*Remember to ask your provider for your number of calories at your next visit. *

When you know how many calories you can eat each day then you will know how many servings of carbohydrates, protein and fat you can eat each day.

For this class we will use 1800 calories as the example.

1800 Calories = Total each day of 14 servings of Carbohydrates

You may choose 14 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 8 servings

Fruit = 3 servings

Milk = 1 serving

Breakfast 4 servings, Lunch 4 servings, Dinner 4 servings

Snack is 2 extra choices from the starches, fruit or milk

Before we get started some things you need to know

1. Food exchange lists:

Food exchange lists are groups of foods having about the same number of calories, carbohydrates, fats and proteins. You can select any of the food within a group or "exchange" for any other food in the group. The foods in the starch, fruit and milk groups may also be exchanged. For example, if you do not want all the milk servings you can exchange one milk and have an extra fruit.

2. Serving size:

One of the most important things to learn is what a serving size is. Americans are used to very large serving sizes. On your meal plan you will need to start to measure your food until you know what a serving size looks like. On the next page are some common things that you can use to judge serving size when you do not have measuring cups.



Visualize your portion size

Visualize your portion size

3. Reading food labels

Nutrition Facts	
Serving size	1 cup
Servings per container	2
Amount per serving	
Calories	90
Calories from fat	30
Total Fat	5 g
Saturated Fat	0g
Cholesterol	0 g
Sodium	300 mg
Total Carbohydrates	13 g
Dietary fiber	3 g
Sugar	3 g
Protein	3 g

The information on the food label is for the amount of food listed as serving size

On the meal plan a **serving of fat is 5 grams (g)**

You should limit your sodium (salt) to 2400 mg or less each day

On the meal plan a **serving of carbohydrates is 15 grams (g)**

*If you have high blood pressure you should eat less sodium each day, ask you provider how much you should have.

Nutrition Facts	
Serving size	1/2 cup
Servings per container	16
Amount per serving	
Calories	180
Calories from fat	80
Total Fat	9 g
Saturated Fat	5g
Cholesterol	30 mg
Sodium	100 mg
Total Carbohydrates	21 g
Dietary fiber	0 g
Sugar	17 g
Protein	4 g

Let's look at a label!

Blue Bell®Ice Cream
Cookies 'n Cream

- 1/2 cup serving has
- 2 servings of fat
- 1 1/2 servings of carbohydrates

Cheerios®

Nutrition Facts	
Serving size 1 cup	
Servings per Container 9	
Amount Per Serving	
Calories 100	Calories from Fat
Total Fat 1.5 g	
Saturated Fat 0 g	
Cholesterol 0 g	
Sodium 240 mg	
Total Carbohydrate 19 g	
Dietary Fiber 2 g	

Serving size _____
 # Total Carbohydrates _____
 Meal plan servings _____

Raisin Bran®

Nutrition Facts	
Serving size ¾ cup	
Servings per Container 9	
Amount Per Serving	
Calories 130	Calories from Fat
Total Fat 1 g	
Saturated Fat 0 g	
Cholesterol 0 g	
Sodium 230 mg	
Total Carbohydrate 30 g	
Dietary Fiber 5 g	
Sugars 13 g	

Serving size _____
 # Total carbohydrates _____
 Meal plan servings _____

Frosted Mini Wheats®

Nutrition Facts	
Serving size 24 biscuits	
Servings per Container 9	
Amount Per Serving	
Calories 240	Calories from Fat
Total Fat 1 g	
Saturated Fat 0 g	
Cholesterol	
Sodium 5 mg	
Total Carbohydrate 48 g	
Dietary Fiber 6 g	
Sugars 12 g	

Serving size _____
 # Total Carbohydrates _____
 Meal plan servings _____

Rice Krispies®

Nutrition Facts	
Serving size 1 cup	
Servings per Container 9	
Amount Per Serving	
Calories 90	Calories from Fat
Total Fat 0 g	
Saturated Fat 0 g	
Cholesterol 0 g	
Sodium 240 mg	
Total Carbohydrate 22 g	
Dietary Fiber 0 g	
Sugars 2 g	

Serving size _____
 # Total carbohydrates _____
 Meal plan servings _____

Food Pyramid

Carbohydrates (starches, grains, fruit and milk) have the greatest effect on the blood sugar. You may be surprised that some of the vegetables are counted as carbohydrates. These include the corn, peas, potatoes, sweet potatoes, yams and dried beans. These are called starchy vegetables.

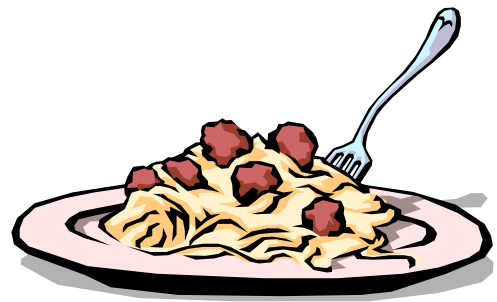
It is very important to measure the carbohydrates so you will know how many servings you eat each day.

A serving of carbohydrates has 15 grams of carbohydrate.

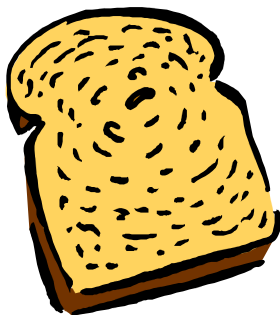
Look at the exchange list and highlight the foods that you eat most often, notice what the serving size is.

Does this look like 1 serving of pasta?

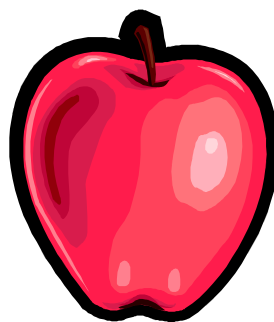
If you want to have **a cup of pasta** then you would count it as **3 servings**.



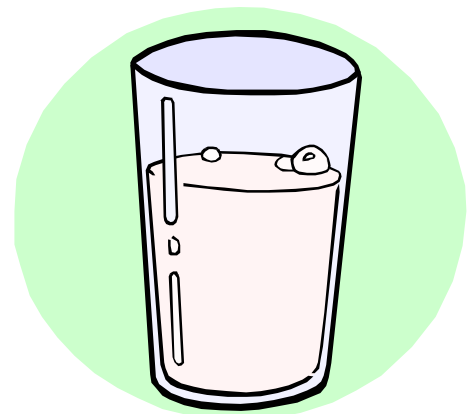
Each of these is one serving of carbohydrate



1 slice of bread



1 apple



8 ounces of milk

When planning meals the carbohydrates should be spaced throughout the day.

Breakfast

Lunch

Dinner

Snack

4

4

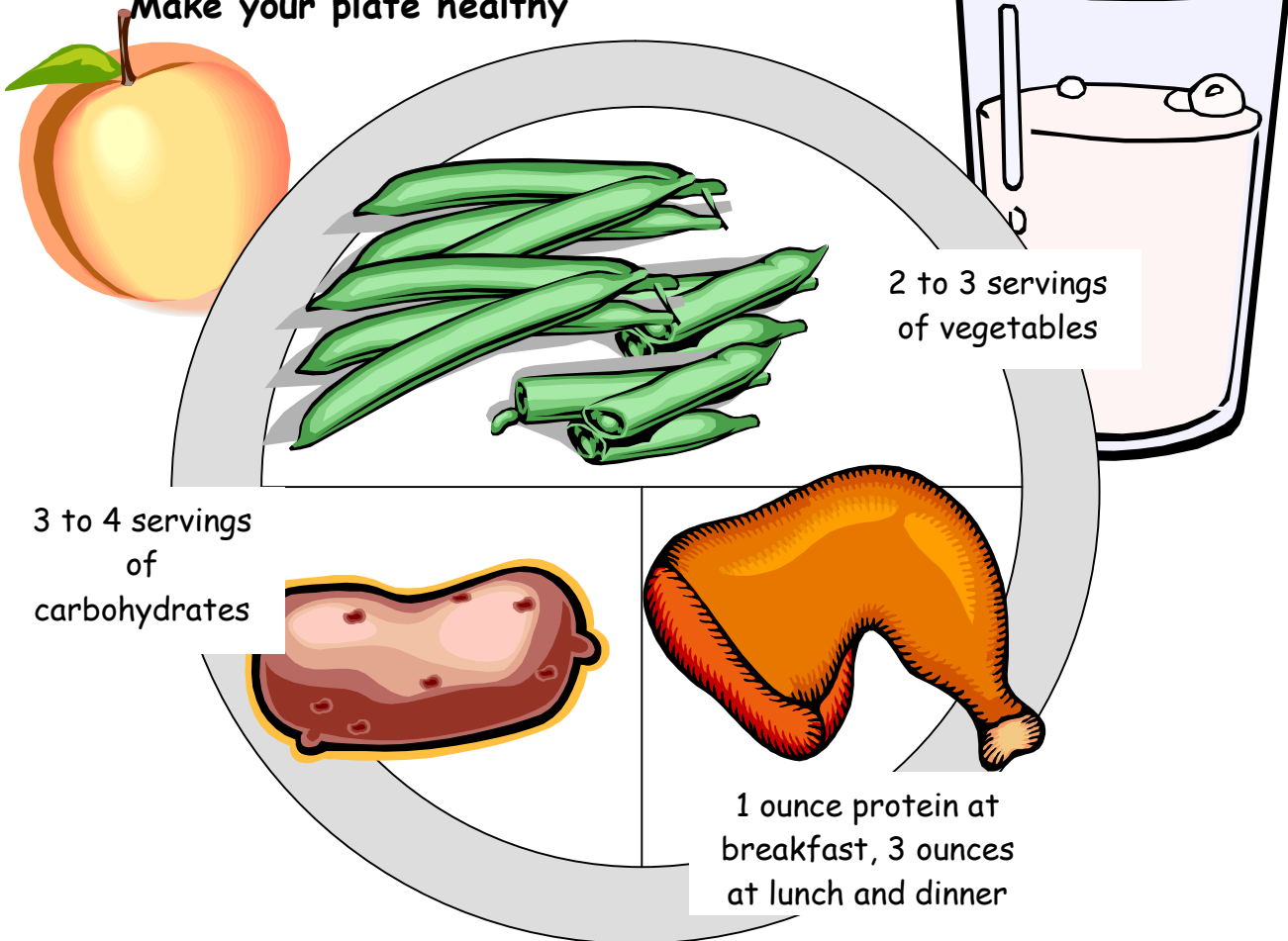
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2

Non-starchy vegetables

This includes all the other vegetables. You should have two (2) to three (3) servings two (2) times a day. Non-starchy vegetables have 5 grams of carbohydrates in a serving. They have a lot of vitamins and minerals as well as fiber. Include them every day.

Make your plate healthy



1500 Calories = Total each day of 11 servings of Carbohydrates

You may choose 11 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 6 servings

Fruit = 1 serving

Milk = 2 servings

Breakfast 3 servings, Lunch 3 servings, Dinner 3 servings

Snack is 2 extra choices from the starches, fruit or milk

Non starchy vegetables:

1 or 2 servings at lunch and dinner

Protein:

1 ounce for breakfast and 3 ounces for lunch and dinner

Fat:

3 servings a day (if you have high cholesterol you should have less)



1800 Calories = Total each day of 14 servings of Carbohydrates

You may choose 14 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 8 servings

Fruit = 3 servings

Milk = 1 serving

Breakfast 4 servings, Lunch 4 servings, Dinner 4 servings

Snack is 2 extra choices from the starches, fruit or milk

Non starchy vegetables:

1 or 2 servings at lunch and dinner

Protein:

1 ounce for breakfast and 3 ounces for lunch and dinner

Fat:

5 servings a day (if you have high cholesterol you should have less)

2000 Calories = Total each day of **15** servings of Carbohydrates

You may choose 14 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 8 servings

Fruit = 3 servings

Milk = 2 servings

Breakfast **4 servings**, Lunch **4 servings**, Dinner **5 servings**

Snack is **2** extra choices from the starches, fruit or milk

Non starchy vegetables:

1 or 2 servings at lunch and dinner

Protein:

1 ounce for breakfast and 3 ounces for lunch and 4 ounces for dinner

Fat:

6 servings a day (if you have high cholesterol you should have less)



2200 Calories = Total each day of **17** servings of Carbohydrates

You may choose 17 carbohydrate servings from the starch, fruit and milk group

For a well balanced meal plan choose:

Starches = 9 servings

Fruit = 3 servings

Milk = 2 servings

Breakfast **5 servings**, Lunch **4 servings**, Dinner **5 servings**

Snack is **3** extra choices from the starches, fruit or milk

Non starchy vegetables:

2 or more servings at lunch and dinner

Protein:

1 - 2 ounces for breakfast and 3 ounces for lunch and dinner

Fat:

8 servings a day (if you have high cholesterol you should have less)

What Counts as Meat, Eggs and Cheese?

Using an Exchange List

- ✚ Meat, poultry, beans, eggs and cheese give you protein, vitamins and minerals.
- ✚ You should have **two three-ounce servings of protein a day plus one ounce for breakfast (optional).**

Example:

Breakfast: 0-1 serving Lunch: 3 oz. serving Dinner: 3 oz. serving

A serving of meat is about the size of a deck of cards.



Choose:

Serving size of proteins that equals one ounce of meat!

- 2 tablespoons of peanut butter
- 1 egg
- 1 ounce of cheese
- 1 hot dog
- $\frac{1}{4}$ cup cottage cheese

one ounce (oz)
meat



- ✚ Beef - round, loin, sirloin, chuck, arm roast/steaks
- ✚ Pork - tenderloin, center loin, and ham
- ✚ Veal - all cuts except ground
- ✚ Lamb - leg, loin and fore shanks roasts/chops
- ✚ Chicken and Turkey - light and dark meat without skin
- ✚ Fish and Shellfish - most are low in fat, avoid those canned in oil
- ✚ Low-fat Cheese; low fat cheese is very high in sodium

Cooking meats:

- ✚ Prepare meats using low-fat methods, such as broiling, roasting, grilling or boiling
- ✚ Cut off any fat you see

What Counts as Fat? Using an Exchange List

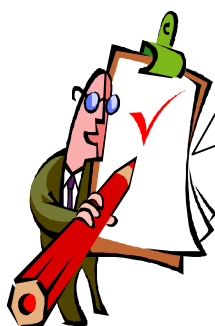
Your meal plan allows you between three and seven servings of fat a day unless you have high cholesterol. If your cholesterol is high have less servings of fat each day. A serving equals five grams of fat.

Most of your fats should be **monounsaturated** or **polyunsaturated** fats.

Here are sample serving sizes:

1/8 avocado	1 teaspoon margarine
1 tsp mayonnaise	1 tablespoon nuts and seeds
2 teaspoon salad dressing	5 large olives
1 teaspoon oil (corn, cottonseed, safflower, soybean, sunflower, olive)	

Only a small amount of the fat you eat should be saturated fat. This fat is usually solid at room temperature like coconut, butter, cheese, bacon, cream cheese, sour cream and red meat fat.



Controlling cholesterol and fat in your diet is important to protect your blood vessels. Read the label on low-fat and fat-free food. If it has five or more grams of fat, count it as one fat-serving for each five grams!

What Counts as Cholesterol?

Cholesterol is a fat-like substance in all animal foods, like meat, poultry, fish, milk and egg yolks. Eat foods low in cholesterol for a healthy heart.

Hints to reduce cholesterol:








- ✚ Limit cholesterol intake to less than 300 mg/dl per day.
- ✚ Use lower fat dairy products, such as skim, 1 %, 2 % or low fat.
- ✚ Occasionally include beans and peas in place of the meat.
- ✚ Organ meats like liver are very high in cholesterol; eat these only occasionally.
- ✚ Remember to count the eggs, milk and butter used in cooking. Choose low fat milk products in cooking also.
- ✚ Take the skin off chicken and turkey before you cook it.
- ✚ Have only one egg yolk per serving; use extra egg whites to increase the amount. The yolk is high in cholesterol.

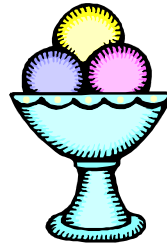


What Counts as Hidden Sugar?

You are working to control sugar in your meal plan -look for **hidden sugars** in food. Sugar by any other name can still raise blood sugar.

Beware of foods labeled "sugar free". Sugar free means the food does not contain refined white sugar but is sweetened with other products that add carbohydrates. When you read food labels look for these added or hidden sugars:

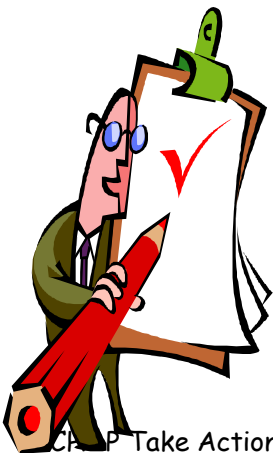
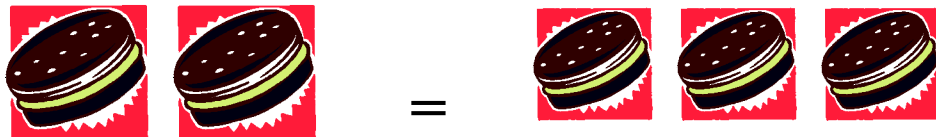
-  Brown sugar
-  Corn syrup
-  Molasses
-  Glucose
-  Lactose
-  Malt syrup
-  Sorbitol



-  Raw sugar
-  Honey
-  Sugar alcohol
-  Fructose
-  Dextrose
-  Dextrin
-  Mannitol

Look at the label, 15 grams of carbohydrate is one serving. For each 15 grams of carbohydrate you will need to exchange one serving of starch, fruit or milk in your meal plan.

Two regular cookies = three sugar-free cookies



Wow- both servings contain 15 grams of carbohydrates. Do you want to pay more **TO BUY SUGAR-FREE !!!** Check out the labels first.

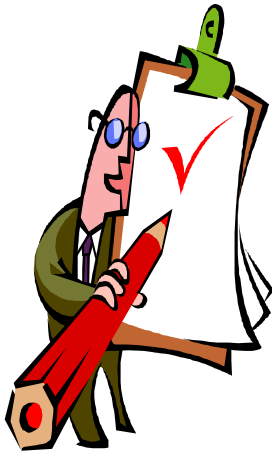
What Counts as Salt or Sodium?

Many people with diabetes also have high blood pressure and should limit their salt intake. Salt will cause an increase in blood pressure. If you do not have high blood pressure authorities recommend no more than 2,400 mg of sodium (salt) a day-that is one teaspoon. If you have high blood pressure, ask your provider how much sodium you should have each day (how many milligrams - not teaspoons!).



Choose:

- ✚ Low salt foods such as fresh or frozen vegetables
- ✚ Choose canned foods that say "no added salt"
- ✚ If you have canned vegetables, drain off the water and rinse the vegetables to remove added salt
- ✚ Don't put the shaker on the table
- ✚ Taste food first, then add salt, if needed
- ✚ Use salt substitute (Try seasoning like Mrs. Dash® in place of salt)



Avoid:

- ✚ Powdered seasonings like garlic and onion salt, instead use garlic or onion powder.
- ✚ Fast foods and convenience (packaged) foods are high in sodium.
- ✚ Chinese foods, such as soy sauce, are high in sodium.
- ✚ Cured meats like ham and lunchmeats like bologna are high in sodium.
- ✚ Canned soup is high in sodium.



Healthy Eating starts with:

- Healthy meal planning
- Healthy shopping
- Healthy recipes
- Healthy cooking
- Healthy portions
- Healthy snacking

Controlling blood sugar levels is very important when you have diabetes. You want to plan your meals so your blood sugar does not get too low or too high.

Here are some tips to help you

- 📌 Develop a routine
- 📌 Make a meal plan and a shopping list
- 📌 Eat your meals at the same time every day
- 📌 Meals should be four and one half to five hours apart.
- 📌 Avoid unplanned snacks; if you are hungry between meals eat some raw vegetables or drink water, diet soda, sugar free tea.
- 📌 Eat three balanced meals daily
- 📌 Use your correct portion size
- 📌 Second helpings = more servings - **DON'T FORGET TO COUNT**
- 📌 When you want to have foods not on the meal plan remember to exchange them for things on the meal plan, do not have them as extras
- 📌 **Always eat at the table.**
- 📌 **Avoid eating in front of the T.V.**

Do not skip meals! You are learning to balance your medicines and foods to prevent high or low Blood sugar.



Dining Out



Plan for eating out.
Make it a part of your meal plan.
Know what a portion size looks like
then, you will not over eat.

Before you go out to eat:

- ✚ Pick a food healthy restaurant
- ✚ If you know the restaurant decide what you will order before you get there, that way you will be less likely to order high calorie foods

At the restaurant:

- ✚ Skip the chips or other snack foods that come before the meal
- ✚ Consider sharing a meal with a friend if the portions are large
- ✚ Be on the look out for fats:
 - Look for words like oil, butter, sour cream, cheese, sausage, golden brown, battered, cream sauce as these add extra calories
- ✚ Choose foods prepared with tomato sauce, vegetables, fruits, mustard, or vinegar
- ✚ Ask for foods to be broiled, baked, stir fried, grilled or steamed instead of fried
- ✚ Ask that sauces and salad dressings be served on the side
- ✚ If you do not know what is in a food, ask
- ✚ Ask about hidden sugar such as honey, molasses or syrup used in food preparation
- ✚ If portions are large, ask for a to go box, it may be helpful to divide the food before you start to eat

Beware of the salad bar!



- ✚ Use a small plate
- ✚ Choose vegetables and fruit
- ✚ If you must, take only a **small taste** of high calorie foods like pasta and potato salad, cheese, croutons, sunflower seeds and bacon bits
- ✚ Avoid "all-you-can-eat" salad bars
- ✚ Remember to use the serving size for salad dressing

Fast Foods:

- ✚ Choose grilled instead of fried or deep fried
- ✚ Have a salad instead of french fries or onion rings
- ✚ **DO NOT super size.**
- ✚ Use mustard and catsup instead of mayonnaise, cheese and guacamole
- ✚ Eat your sandwich as "open faced", only half of the bun
- ✚ Select children's-size or junior-size portions
- ✚ Have water, low-fat milk, iced tea, or diet beverages instead of regular soft drinks

Food item	Carbs	Total fat	Sodium
Big Mac®	45 Gms	31 Gms	1070 mgs
Super size fries	68 Gms	26 Gms	350 mgs
Large Coke®	86 Gms		30 mgs
Total	199 Gms	57 Gms	1450 mgs
# servings	13	11	$\frac{1}{2}$ tsp +

Pizza:

- ✚ Choose vegetables as toppings
- ✚ Avoid pepperoni, sausage and extra cheese
- ✚ Have thin crust



Here are some ideas for your action plan. Pick things you are willing to try. Good luck and share with your educator and provider!

- WHAT you are going to do
- HOW MUCH you will do
- WHEN you will do it
- HOW OFTEN you will do it

Food labels	I will read food labels when I go to the grocery store.
Portion size	I will use measuring cups for serving sizes from the exchange list at (which meals) starting (when).
Number of portions	I will have (number) less servings of (food) at (meal) (number of days) each week starting (when).
Number of calories per day	At my next clinic visit I will ask my provider for the number of calories to eat each day.
Cholesterol	I will eat one (less serving or substitute a food) of (food) at (meal) (times) each week starting (when)
Eating three meals a day	I will eat (meal) at (time) (number of days) a week starting (when).
Planning meals	I will plan meals for (number of days) (when) he Calories by meals and the exchange list for the next (how long).

What is on Your Plate?



- List the foods you eat for one day and the serving size.
- Using the exchange list, put in the number of servings under the correct food group.
- At the end of the day, total each column. Using "Meal Plan by Calorie", put in the TARGET number of servings for each food group. How close are you?

	Serving Size	Carbohydrates			Vegetables	Meat and Cheese	Fat
		Bread Cereal Rice Pasta	Fruit	Milk and yogurt			

Breakfast

Example: egg	2					2oz	
Example: Toast	2	2					
Example: margarine	2						2

Lunch

Big Mac®	1	3				8 oz	6
Fries	Super	5 1/2					5
Diet Coke®	32 oz						

Dinner

Tortillas	3	3					
Rice	1 cup	3					
Beans	1 cup	3					
Chicken	6 oz					6 oz	

Snacks

Candy Bar	1	3					

Subtotal:		22 1/2				16 oz	13
Total:		22 1/2					
Target:		14				7 oz	5