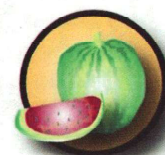


# Glycemic Index

## CardioProtective Lifestyle Program

The Glycemic Index (GI) is a measure of how much your blood sugar level rises after a food is ingested. High GI foods cause blood sugar to rise quickly, whereas a food with a low GI causes a smaller rise in blood sugar and may help control established diabetes, aid in weight loss, and lower cholesterol.



Grain/Starch	Grain/Starch	Vegetable	Fruit	Dairy	Protein	Sweets
<b>LOW</b>	<b>MODERATE (cont.)</b>	<b>LOW</b>	<b>LOW</b>	<b>LOW</b>	<b>LOW</b>	<b>LOW</b>
Rice bran 27	Oat kernel bread 93	Peas, dried 32	Cherries 32	Yogurt, low fat, 20	Peanuts 21	Fructose 31
Barley, pearled 36	Kellogg's 93	Tomato soup 56	Grapefruit 36	artificially sweetened	Beans, dried, not specified 40	Strawberry jam 51
Spaghetti protein enriched 38	Couscous 93	Marrowfat, dried 56	Apricots, dried 44	Milk, chocolate, artificially sweetened 34	Lentils, not specified 41	Cake, sponge 66
Fettuccine 46	High Fibre Rye 93	Peas, green 68	Pear, fresh 53	Milk, regular 39	Kidney beans 41	Ice cream, low fat 71
Spaghetti, wholemeal 53	Crisp 94	Carrots 70	Apple 54	Soy milk 43	Butter beans 43	Cake, pound 77
Fruit 'n Oats 55	Nutri-grain 94	Yam 73	Plum 55	Split peas, yellow, boiled 45	Oatmeal cookies 79	
Spaghetti, white 59	Life 94	Sweet potato 77	Peach, fresh 60	Milk, skim/nonfat 46		<b>MODERATE</b>
Wheat kernels 59	Barley flour bread 95	Potato, white, boiled 81	Orange 63	Yogurt, low fat, fruit sugar sweet 47	Lima beans, baby, frozen 46	High Fructose Power Bar 81
All-bran 60	Gnocchi 95	Potato, new 81	Grapes 66	Milk, chocolate, sugar sweetened 49	Chick peas (garbanzo beans) 47	Pastry 84
Macaroni 64	Stoned Wheat 96		Peach, canned 67		Navy beans 54	Muesli Bars 87
Linguine 65	Thins 96	<b>MODERATE</b>	Banana 77	<b>MODERATE</b>	Pinto beans 55	Ice cream 87
Rye Kernel bread 66	Wheat bread 97	Beets 91		ice cream, low fat 71	Black-eyed beans 59	Sucrose (table sugar) 89
Instant noodles 67	Taco shells 97	Potato, canned 97	<b>MODERATE</b>		Chick peas, canned 60	Corn Syrup 90
Oat bran bread 68	Cornmeal 98		Fruit cocktail 79	<b>HIGH</b>	Lentil soup, canned 63	Shortbread 91
Bulgur 68	Shredded Wheat 99	<b>HIGH</b>	Mango 80	ice cream 87		
Mixed grain bread 69	Cream of Wheat 100	Potato, mashed 100	Apricots, fresh 81		Pinto beans, canned 64	<b>HIGH</b>
Pumpnickel bread 71	White bread 100	Rutabaga 103	Raisins 92		Baked beans, canned 69	Cake, angel food 95
Bran Buds 77	Golden Grahams 102	French fries 107	Pineapple 94		Kidney beans, canned 74	Croissant 96
Special K 77	Water Crackers 102	Potato, microwaved 117			Lentils, canned 74	Corn chips 105
Oat Bran 78	Bagel, white 103	Potato, instant 118	<b>HIGH</b>			Graham Wafers 106
Popcorn 79	Kaiser roll 104	Potato, baked 121	Watermelon 103			Donut 108
Rice, brown 79	Bread stuffing 106	Parsnips 139	Dates 141			Waffles 109
Muesli 80	Cheerios 106					Vanilla Wafers 110
	Total 109					Tapioca, boiled with milk 115
	Breakfast bar 109					Pretzels 116
<b>MODERATE</b>	Rice Cakes 110					Honey 126
Pita bread, white 82	Post Flakes 114					Glucose 138
Bran Chex 83	Rice Krispies 117					Maltose 152
Rice, white 83	Cornflakes 119					
Hamburger bun 87	Rice Chex 127					
Oatmeal 87	Rice, instant 128					
Rye flour bread 92	French baguette 136					Tofu frozen dessert, non-dairy 164



Berkeley HeartLab, Inc.  
4myheart Center

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# PREVENTION.COM: THE OUTSMART DIABETES 5-WEEK MEAL PLAN

<http://www.prevention.com/health/diabetes/preventions-5-week-diabetes-diet-meal-plan>

The Outsmart Diabetes Diet is based on new research that found four specific nutrients—fiber, vitamin D, omega-3s, and calcium—work together to help balance blood sugar and encourage weight loss. Build your daily meal plan by choosing one breakfast, one lunch and one dinner, plus two snacks—any combination gets you approximately 1,400 calories a day and a healthy dose of the "Fat-Fighting 4." Remember to eat about every 3 hours and practice portion control. Follow this mix and match meal plan—adapted from The Outsmart Diabetes Diet—for the next five weeks to help fight fat, maintain healthy blood sugar levels, boost energy, and reduce your diabetes risk.

## BREAKFAST

**Fruity bagel breakfast:** Spread 1 Tbsp cream cheese and 1 tsp 100 percent fruit spread on ½ of a whole grain bagel. Serve with 1 c milk.

**Crunchy yogurt:** Combine 6 oz yogurt, ¼ c granola cereal, 1 Tbsp ground flax seed, and 1 Tbsp chopped nuts. Add ground cinnamon and/or sugar substitute to taste.

**Eggs and English muffin:** Scramble 1 egg in a pan coated with 1 tsp olive oil; top with ¼ c chopped tomato, onion, and chili salsa. Serve with toasted 100 percent whole grain English muffin, spread with 2 Tbsp cottage cheese, and 1 c milk.

**Good Morning Blend:** Stir together 6 ounces yogurt, 2 Tbsp dried mixed fruit, 2 Tbsp ground flax seed and 2 Tbsp chopped almonds, walnuts, or pecans.

**Nutty Oatmeal:** Top 1/2 c cooked oatmeal with ¼ c walnuts or other nuts; add ground cinnamon and/or sugar substitute to taste. Serve with 1 c milk or calcium-enriched soy or rice beverage.

**Bagel and cream cheese:** Spread 1/2 100% whole grain bagel with 1 Tbsp cream cheese. Serve with 1 c milk or calcium-enriched soy or rice beverage.

**Veggie omelet:** Cook 1 egg white in a pan with 2 tsp olive oil. Add ½ c spinach leaves, ½ c mushrooms, onions, garlic, and herbs as desired; and top with 2 Tbsp cheese. Serve with 1 slice 100% whole grain toast spread with 1 tsp butter and 1 c milk or calcium-enriched soy or rice beverage.

## SNACKS

1 medium orange or tangerine and 2 T dry roasted almonds (no added salt)

1 c fresh strawberries and ¼ c unsalted nuts

1 c seasonal melon and 6 oz fat-free light yogurt

4 dried apricot halves (or 3 dried plums) and 7 walnut halves

2 fresh or dried figs and ¼ c unsalted nuts

1 kiwi and 12 whole almonds

1 medium apple, sliced, with 2 Tbsp all-natural peanut butter

2 graham crackers spread with 1 Tbsp all natural peanut butter

3 c light popcorn and 16 oz light lemonade

¼ c cashews, almonds, walnuts or other nuts

4 vanilla wafers and 1 c fat-free milk or calcium-enriched soy or rice beverage

6 oz yogurt and ¾ cup blueberries, raspberries or blackberries

½ c ice cream (choose ice cream with no more than 2 grams saturated fat and 20 grams total carbohydrates)

Stir 1 Tbsp chopped dried fruit and 1 Tbsp chopped nuts into 6 oz yogurt.



## LUNCH

**Tuna melt:** Top 1 toasted whole grain English muffin with 1/4 c tuna mixed with 1 tsp mayonnaise, 1 Tbsp minced dill pickle and/or chopped celery and 1 oz cheese. Place in pre-heated oven (450°F) for 5 to 10 minutes (or microwave for 30 seconds until cheese melts). Serve with 8 baby carrots with 2 Tbsp ranch dressing, and 1 c milk or calcium-enriched soy beverage.

**Lean-body salad:** Toss 2 c mixed dark greens, 1/2 c canned garbanzo beans (rinsed well), 1 oz Mozzarella shredded cheese and 2 Tbsp Italian dressing. Serve with 1 fresh peach.

**Chicken salad:** Combine 2 c mixed dark greens, 2 stalks chopped celery, and 1/4 c sliced green or red grapes. Top with 2 oz cooked chicken breast, and drizzle with 2 Tbsp honey mustard dressing (such as Newman's Own). Serve with 1 slice reduced-calorie 100 percent whole grain toast, spread with 1 tsp butter.

**Roast-beef sandwich:** Layer 2 oz lean roast beef, 1/2 c chopped romaine lettuce and 1/2 sliced tomato on 2 slices reduced calorie 100 percent whole grain bread, spread with 1 tsp mayonnaise and/or mustard.

**Pesto pizza:** Split and toast a 100 percent whole grain English muffin. Top each half with 1 Tbsp pesto basil sauce, 1 slice tomato or 1/2 c canned tomatoes, and 1/2 slice cheese. Broil or bake in oven until cheese melts.

**Bean tostada:** Bake 1 corn tortilla in 400-degree oven until crisp. Spread with 1/2 c cooked or canned pinto beans (rinsed) and 2 Tbsp shredded Mexican blend cheese. Return to oven for 5 to 10 minutes until cheese melts. Top with 1/4 c salsa. Serve with a cabbage salad (1 c shredded cabbage and 1 chopped tomato with 2 Tbsp dressing).

**Tuna salad:** Mix 3 oz water-packed tuna with 2 stalks chopped celery, 4 chopped green olives, and 1 tsp regular mayonnaise. Add 1 Tbsp seasoned rice vinegar, if desired. Scoop tuna onto 2 c mixed dark greens, and top with 1 Tbsp chopped almonds. Serve with 1 oz 100 percent whole grain crackers.

## DINNER

**Barbecue chicken:** Grill or roast 3 oz chicken and top with 2 Tbsp barbecue sauce. Serve with 1 slice garlic sourdough toast, spread with 1 tsp olive oil and garlic, and colorful coleslaw (mix 1 c shredded red and green cabbage and carrots with 1 Tbsp regular coleslaw dressing or 2 Tbsp dressing).

**Roast beef and rice:** 3 oz lean roast beef, sliced, with 2/3 c cooked brown rice and 1 c cooked spinach, seasoned with 1 tsp olive oil and 1 tsp balsamic vinegar.

**Halibut and potatoes:** 3 oz foil-baked halibut or other fish with 1 c green peppers and onions. Serve with 1/2 c red potatoes, roasted in 1 Tbsp olive oil and seasoned with herbs and spices.

**Pasta with meatballs:** Toss 1 c cooked whole grain pasta in garlic and 1 Tbsp olive oil and garlic. Top with 3-oz lean meat balls (made with turkey, chicken or soy) and 1 tsp grated Parmesan cheese. Serve with cucumber salad (toss 1 c mixed greens, 1 c cucumber slices, 10 halved cherry tomatoes, 1/4 c chopped red onions and 2 Tbsp Italian dressing).

**Shrimp salad bowl:** Mix 1/3 c cooked brown rice and 2 Tbsp crumbled feta cheese. Scoop onto 2 c mixed greens, and top with 3 oz grilled or sautéed shrimp and 2 Tbsp reduced-fat dressing. Serve with 2 whole grain rye crispbread crackers, spread with 2 Tbsp ricotta or cottage cheese.

**Oven fried chicken:** Toss 4 oz raw chicken breast in 1 Tbsp Italian dressing, coat with 2 Tbsp seasoned bread crumb and olive oil. Place on lightly oiled cookie sheet. Bake at 350°F for 30 minutes or until browned and no longer pink inside. Serve with 3-bean salad (toss 1/2 c green beans, 1/4 c garbanzo beans, 1/4 c red beans, 2 Tbsp chopped onion and 2 Tbsp Italian dressing).

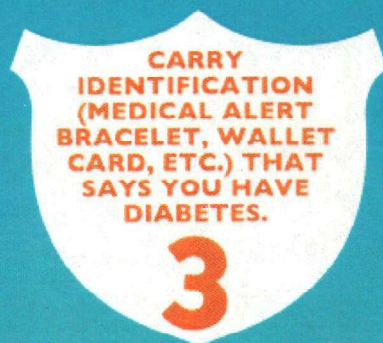
**Tofu stir fry:** Stir-fry 3 oz tofu and 2 c mixed vegetables (broccoli, cauliflower, green beans, onions) in 2 Tbsp reduced sodium stir fry sauce and 1 Tbsp olive oil. Serve over 2/3 c cooked brown rice.



# DIABETES & ALCOHOL

DRINKING  
WITH DIABETES

- 1** BE SURE TO GET YOUR MEDICAL TEAM'S RECOMMENDATIONS ABOUT WHETHER DRINKING ALCOHOL IS SAFE FOR YOU.  
**TALK TO YOUR DR**



## GLUCAGON WILL NOT HELP TREAT ALCOHOL-INDUCED HYPOGLYCEMIA.

**2**

AFTER 1 OR 2 DRINKS, YOUR LIVER'S PRIMARY FUNCTION IS CLEANING THE ALCOHOL FROM YOUR BLOOD, NOT PRODUCING AND RELEASING GLUCOSE. GLUCAGON WILL NOT WORK UNTIL YOUR LIVER IS FINISHED THIS PROCESS.

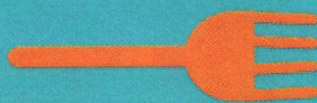
## 4: KNOW YOUR DRINKS



- KNOW THE ALCOHOL LEVEL OF BEER AND WINES
- KNOW THE PROOF OF DISTILLED SPIRITS
- KNOW THE CARBOHYDRATES, JUICES, SODAS AND MIXERS

## 5 EDUCATE YOUR DRINKING BUDDIES

YOUR DRINKING BUDDIES SHOULD HAVE A WORKING UNDERSTANDING OF TYPE 1 DIABETES. THEY SHOULD KNOW YOU HAVE DIABETES AND WHAT TO DO IN AN EMERGENCY. ESPECIALLY BECAUSE INTOXICATION CAN LOOK LIKE HYPOGLYCEMIA



## VI. EAT A SNACK

NEVER DRINK ON AN EMPTY STOMACH. ONCE YOU START DRINKING, YOUR LIVER WILL STOP PRODUCING GLUCOSE AND YOU'LL NEED IT FROM FOOD TO PREVENT HYPOGLYCEMIA.

BRING YOUR BLOOD TESTING KIT.

BRING GLUCOSE TABLETS OR GELS.

MAKE SURE YOUR DRINKING BUDDIES KNOW WHAT TO DO IF YOU GO LOW.

HAVE A PLAN TO GET HOME.

## SEVEN: BE PREPARED

## 8 TEST YOUR BLOOD

(YOU KNOW WHY, JUST DO IT)

## IX EXERCISE & ALCOHOL DON'T MIX

BOTH EXERCISE AND DRINKING LOWER BLOOD SUGAR LEVELS. (PRO TIP: DANCING COUNTS AS EXERCISE!)

## TEN: AFTER THE PARTY

REMEMBER ALCOHOL CAN LOWER YOUR BLOOD SUGAR HOURS AFTER YOU'VE CONSUMED IT. BEFORE YOU GO TO BED, CHECK YOUR BLOOD SUGAR AND HAVE A SNACK TO BE SAFE. IF YOU DRANK A LOT, CONSIDER SETTING AN ALARM TO WAKE YOU UP TO TEST YOUR BLOOD IN THE MIDDLE OF THE NIGHT.



# PHYSICAL ACTIVITY IS IMPORTANT!

Wondering why physical activity is so important? Regular activity is a key part of managing diabetes along with proper meal planning, taking medications as prescribed, and stress management. When you are active, your cells become more sensitive to insulin so it can work more efficiently. Your cells also remove glucose from the blood using a mechanism totally separate from insulin during exercise.

So, exercising consistently can lower blood glucose and improve your A1C. When you lower your A1C, you may be able to take fewer diabetes pills or less insulin. Physical activity is also important for your overall well being, and can help with many other health conditions.

Regular physical activity:

- lowers blood pressure and cholesterol
- lowers your risk for heart disease and stroke
- burns calories to help you lose or maintain weight
- increases your energy for daily activities
- helps you sleep better
- relieves stress
- strengthens your heart and improves your blood circulation
- strengthens your muscles and bones
- keeps your joints flexible
- improves your balance to prevent falls
- reduces symptoms of depression and improves quality of life

You'll see these benefits even if you haven't been very active before.

## **American Diabetes Association**

<http://www.diabetes.org/food-and-fitness/fitness/physical-activity-is-important.html>

## **Web MD: Guide to Summer Fitness: 7 Most Effective Exercises**

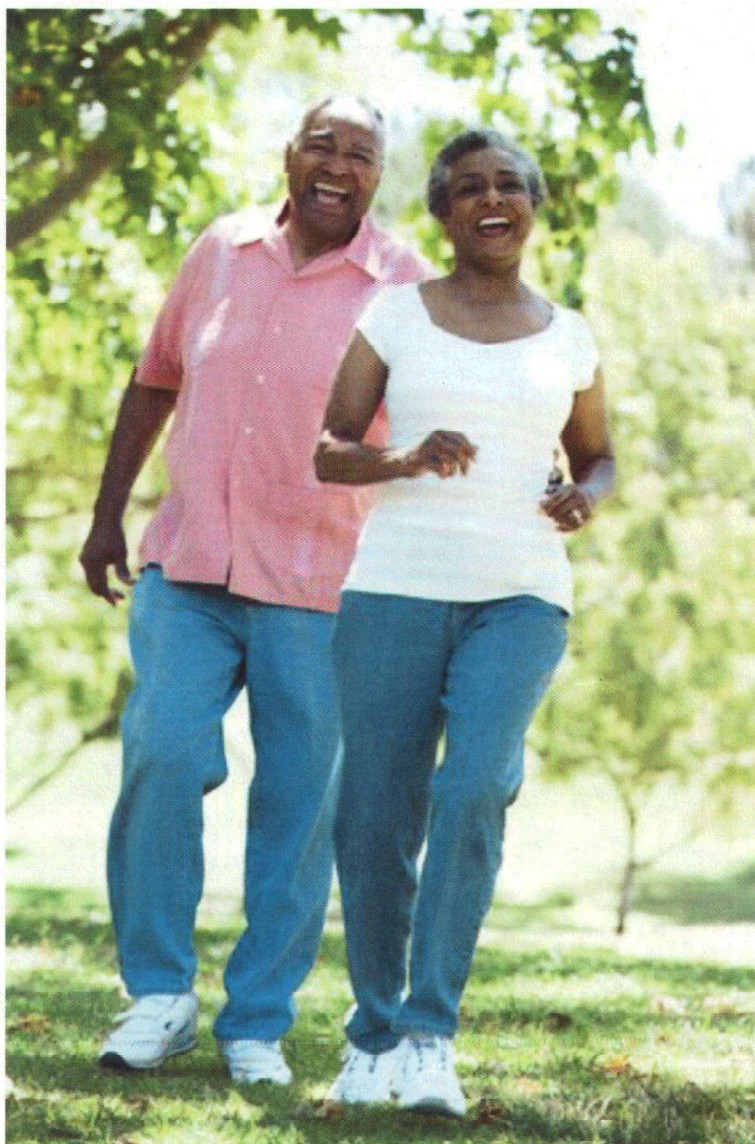
<http://www.webmd.com/fitness-exercise/summer-fitness-8/7-smart-workouts>

## **Prevention.com: 14 Walking Workout to Burn Fat and Boost Energy**

<http://www.prevention.com/fitness/fitness-tips/14-walking-workouts-burn-fat-and-boost-energy>

## **Health.com: 15 Exercise Tips for People with Type 2 Diabetes**

<http://www.health.com/health/gallery/0,,20425548,00.html>





# CONQUERING THE GROCERY STORE

## PLANNING AHEAD CAN HELP WITH DIABETES MANAGEMENT

Grocery shopping usually isn't at the top of anyone's list of fun activities. For people with diabetes it can seem especially overwhelming – The carbohydrates! The sugar! Making healthy choices! But with a little planning, grocery shopping can be a very effective tool in meeting goals, from managing blood sugar levels to losing weight.

"Planning ahead and shopping carefully are two great ways to take control, because you

can get more out of your time and efforts," said Melissa Joy Dobbins, MS, RDN, CDE, a Chicago-area diabetes educator and spokesperson for the American Association of Diabetes Educators (AADE). "It keeps you focused so you'll buy more foods that are healthy and fewer that have little or no nutritional value. That way you don't have to rely on your willpower when you're back home to eat less of certain foods and more of others."

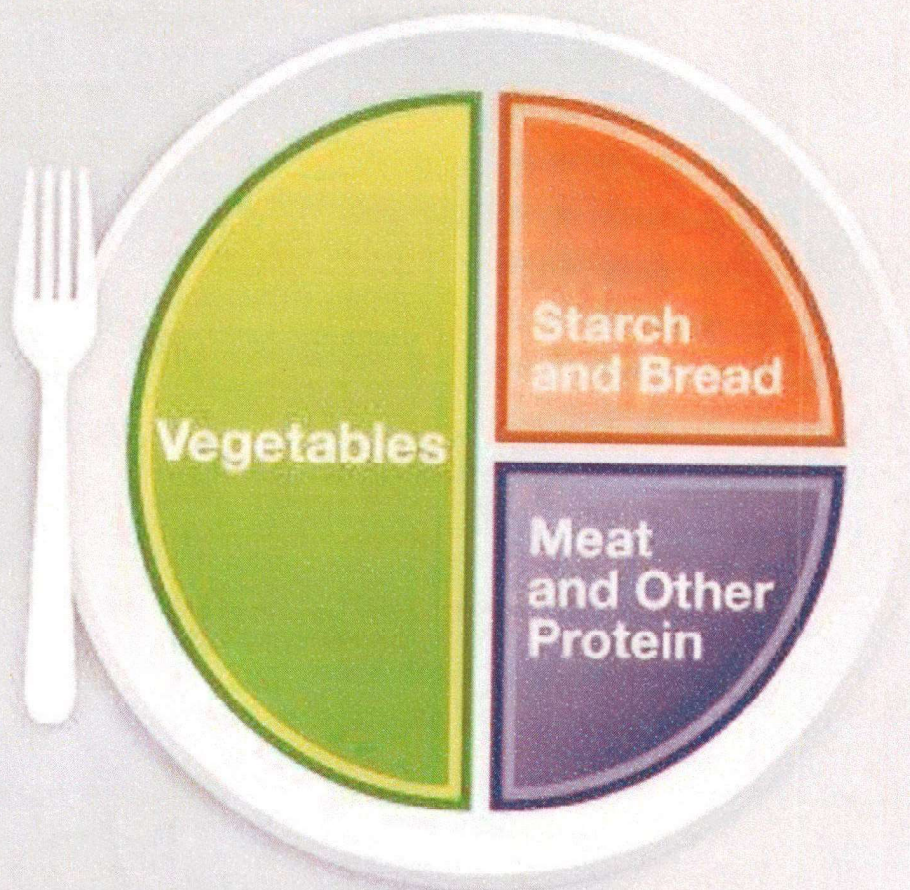
Successful grocery shopping is about focusing on what's healthy, nutritious and tasty, so you'll actually enjoy eating it. Diabetes educators can help people with diabetes make informed choices by explaining how different types of foods affect your diabetes, and sharing strategies about how to approach grocery shopping so it can help you meet your goals. They recommend starting with these tips:

- **First, make a list** – Create a list of items you need at the grocery store before you go. Think of the meals you'll make, the staples you're running low on and perhaps a new, healthy recipe or food item you'd like to try. Organize the list by food group to speed up the process and keep you on track. If nothing is written under the vegetable category, that's a red flag; think about what vegetables you want to eat, and consider searching for a new recipe that you can get excited about. Make copies of a standard list you can update every time you go, or try a smart phone shopping app.
- **Eat before you go** – It's never a good idea to go shopping when you're hungry; that's when you're more likely to make poor choices. Eat a healthy meal or snack.
- **Think inside the box, or bag or can** – Fresh fruits and vegetables are great, but they aren't your only option. Dried, canned and frozen fruits and vegetables offer nutrients, too, and can be healthy, easy and affordable additions to your diet. Look for fruits that are packed in juice rather than heavy syrup. Look for "low-sodium" or "no salt added" canned vegetables. Be aware that starchy vegetables such as peas, corn and potatoes contain more carbohydrates than other vegetables.
- **Read labels** – Look past the "sugar free" or "low fat" claims. Read the nutrition label for specific information (from fat to carbohydrates to vitamins), noting the amounts that one serving of that food provides. Specifically:
  - **Consider the carbohydrates** – Looking at sugar content is fine, but it's more important to consider the amount of "total carbohydrates," which affect your blood sugar. Work with a diabetes educator to learn how many grams of carbohydrates are appropriate for you to eat per snack, meal and day.
  - **Focus on fiber** – Choose whole grain bread, rice, pasta and cereal. Then look for those that are a good source of fiber (2.5 grams or more per serving) or high in fiber (5 grams or more per serving). A healthy diet includes 25 to 30 grams of fiber from foods a day. Other good sources of fiber are beans, vegetables and fruits.
  - **Hunt for healthy fats** – Fats are an important part of every diet, but it's important to lean towards those that are heart-healthy, such as olive and canola oil, avocado and nuts, limiting them if you are watching your weight.

Grocery shopping can be a useful tool for diabetes management, if you do it wisely. Find a diabetes educator near you who can help you determine the best way to harness its power.



Plate is 9" in diameter with regular-size portions



These foods raise blood sugar.

These foods slightly raise blood sugar.

These foods have little effect on blood sugar.