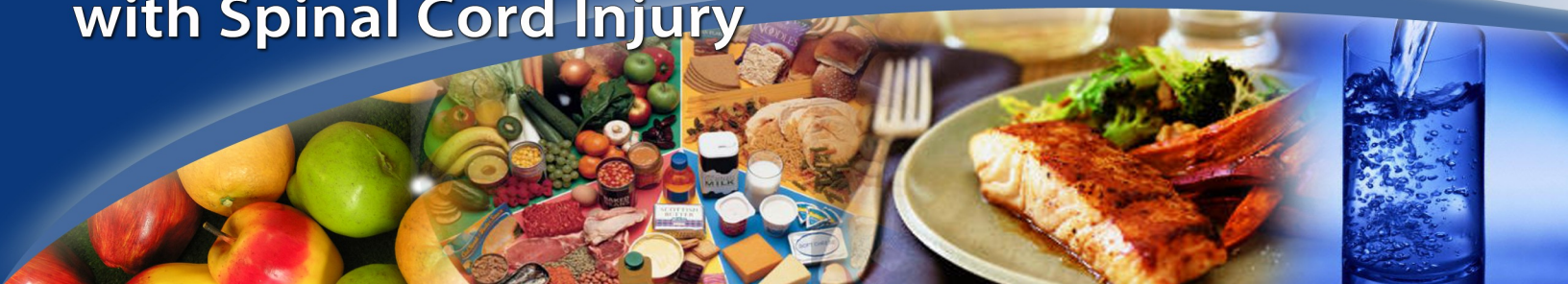
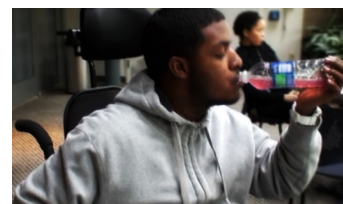


Dietary Guidelines for Individuals with Spinal Cord Injury



Eating is one of life's greatest pleasures. Your body needs food that is rich in nutrients to create energy, resist infection and enable you to have a full, productive life.

After a spinal cord injury, how your body's systems – such as bowel, bladder and skin – function are altered due to your paralysis. Because you are less active, your muscles and bones may become weaker. Your circulatory and respiratory systems that pump blood and oxygen to your heart, lungs and throughout your body may not work as effectively. You will also need to pay attention to your bowel and bladder function. With less physical activity, you burn off fewer calories and may gain weight or possibly maintain weight but replace muscle with fat. Excess weight adds stress on your heart and may make weight shifts and transfers more difficult. This can contribute to skin breakdown or pressure ulcers. One thing that you can do to reduce some of these risks is to maintain a healthy diet.



Specific diet recommendations for spinal cord injury include:

1. Adequate fiber* and fluids to prevent constipation;
2. Adequate protein** to prevent pressure ulcers and preserve lean body mass (muscles);
3. Low fat foods and drinks to prevent weight gain;
4. Taking in fewer calories to balance your lower energy use.

*Fiber sources include whole grain products, fruits and vegetables. Try making half of your grain food choices whole grain. The recommendation for daily fruit and vegetable intake is at least 5 choices per day. For more fiber, choose the actual fruit or vegetable rather than dried fruit or juice.

**Protein sources include meats, poultry, eggs, fish, tofu, and beans. Choose a variety of protein foods that are lean or low fat. Beans are a great substitute for meat and will provide fiber as well.



A high percentage of American's are becoming increasingly overweight or obese. This is often due to high calorie foods containing fat and sugar in combination with little or no exercise. The good news is that by following recommended dietary guidelines and eating nutritionally-balanced meals, you can prevent or lessen the chances for medical complications. This important choice is yours.

Dietary Guidelines

In 2010, the USDA published the *Dietary Guidelines for Americans*. The guidelines recommend making changes in three areas – balancing calories, increasing intake of some foods, and reducing intake of others. You should choose the steps that work for you and then begin today by:

Balancing Calories

- ◆ Enjoy your food, but eat less. Eating too fast or when your attention is elsewhere (such as eating while reading or watching television) may lead to eating too many calories. Pay attention to hunger and fullness cues before, during, and after meals.
- ◆ Avoid oversized portions. Use a smaller plate, bowl, and glass. Portion out foods before you eat. When eating out, choose a smaller size option, share a dish, or take home part of your meal.



Increasing Intake of Healthy Foods

- ◆ Make half your plate fruits and vegetables. Eat red, orange, and dark-green vegetables, such as tomatoes, sweet potatoes, and broccoli, in main and side dishes. Buy fresh fruits and vegetables in season or frozen without added sauces, sugars, or syrups.
- ◆ Eat fruit, vegetables, or unsalted nuts as snacks—they are nature’s original fast foods.
- ◆ Make at least half your grains whole grains. Choose 100% whole-grain cereals, breads, crackers, rice, and pasta. Look for “whole grain” on the package or ingredients list. Wheat and 100% wheat are not the same as whole grain. Whole grain flours are ground with the bran and germ. The flavor is somewhat stronger than white or wheat flour and may have a rougher texture.
- ◆ Switch to fat-free (skim) or low-fat (1%) milk. They have the same amounts of calcium, vitamin D, and other essential nutrients as whole milk, but less fat, cholesterol, and calories. Low fat soy or other cow milk alternatives are also good choices as long as they contain at least 30% DV calcium and 25% vitamin D per one cup serving.



Reducing Intake of Other Foods

- ◆ Compare sodium in foods like soup, bread, and frozen meals—and choose the foods with lower numbers. Sodium, a component of salt, can raise blood pressure; so, it is best to keep your overall daily sodium intake between 1500-2300mg. Add spices or herbs to season food without adding salt.
- ◆ Drink water or unsweetened beverages instead of sugary drinks. There are about 10 packets of sugar in a 12-ounce can of regular soda.
- ◆ Make major sources of saturated fats—such as cakes, cookies, ice cream, pizza, cheese, sausages, and hot dogs—occasional choices, not everyday foods.
- ◆ Switch from solid fats to oils such as olive oil or canola oil when preparing food. Using cooking spray is a low-fat, calorie-free option.



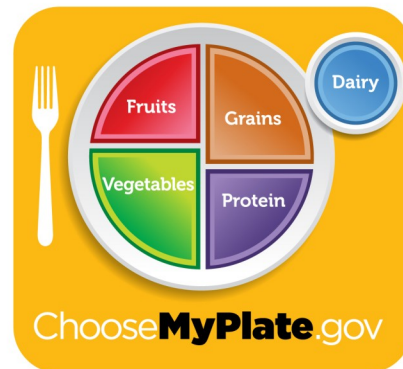
The *Dietary Guidelines for Americans, 2010*, are some of the best science-based advice on how to eat for health. The Guidelines encourage all Americans to eat a healthy diet and be physically active.

The 10 Tips Education Series

Available online at the www.choosemyplate.gov website are some excellent factsheets in the 10 Tips Education Series.

Dietary Guidelines (DG) TipSheet No. 8 provides tips on how to liven up your meals with vegetables and fruits.

There are many benefits from adding vegetables and fruits to your meals. They are low in fat and calories, while providing fiber and other key nutrients. Most Americans should eat more than 3 cups—and for some, up to 6 cups—of vegetables and fruits each day. Vegetables and fruits don't just add nutrition to meals. They can also add color, flavor, and texture. Explore these creative ways to bring healthy foods to your table.



#1 fire up the grill

Use the grill to cook vegetables and fruits. Try grilling mushrooms, carrots, peppers, or potatoes on a kabob skewer. Brush with oil to keep them from drying out. Grilled fruits like peaches, pineapple, or mangos add great flavor to a cookout.



#2 expand the flavor of your casseroles

Mix vegetables such as sautéed onions, peas, pinto beans, or tomatoes into your favorite dish for that extra flavor.

#3 planning something Italian?

Add extra vegetables to your pasta dish. Slip some peppers, spinach, red beans, onions, or cherry tomatoes into your traditional tomato sauce. Vegetables provide texture and low-calorie bulk that satisfies.

#4 get creative with your salad

Toss in shredded carrots, strawberries, spinach, watercress, orange segments, or sweet peas for a flavorful, fun salad.



#5 salad bars aren't just for salads

Try eating sliced fruit from the salad bar as your dessert when dining out. This will help you avoid any baked desserts that are high in calories.

#6 get in on the stir-frying fun

Try something new! Stir-fry your veggies—like broccoli, carrots, sugar snap peas, mushrooms, or green beans—for a quick-and-easy addition to any meal.

#7 add them to your sandwiches

Whether it is a sandwich or wrap, vegetables make great additions to both. Try sliced tomatoes, romaine lettuce, or avocado on your everyday sandwich or wrap for extra flavor.



#8 be creative with your baked goods

Add apples, bananas, blueberries, or pears to your favorite muffin recipe for a treat.

#9 make a tasty fruit smoothie

For dessert, blend strawberries, blueberries, or raspberries with frozen bananas and 100% fruit juice for a delicious frozen fruit smoothie.



#10 liven up an omelet

Boost the color and flavor of your morning omelet with vegetables. Simply chop, saute, and add them to the egg as it cooks. Try combining different vegetables, such as mushrooms, spinach, onions, or bell peppers.

Improving what you eat and being active will help to reduce your risk of chronic diseases such as diabetes, heart disease, some cancers, and obesity. For people with spinal cord injury, eating healthy will help prevent pressure ulcers and preserve lean body mass. For more information on spinal cord injury or good nutrition in general, visit the following websites or request a call back from a registered dietitian at the MedStar National Rehabilitation Hospital by calling 877-278-0644 and leaving a message with your name, telephone number and best time to reach you.

Useful websites

www.sci-health.org

www.DietaryGuidelines.gov

www.ChooseMyPlate.gov

www.HealthFinder.gov

Excerpted from *SCI & Nutrition Facts*, published by the RRTC in Community Integration for Individuals with Spinal Cord Injury at Baylor College of Medicine and TIRR (The Institute for Rehabilitation and Research), Houston, TX, 2002; *Let's eat for the health of it*, USDA Publication number: Home and Garden Bulletin No. 232-CP, June 2011 and USDA Center for Nutrition and Policy Promotion *10 Tips Nutrition Education Series* DG TipSheets No. 8, June 2011, <http://www.choosemyplate.gov/healthy-eating-tips/ten-tips.html>.