

## Blending Fruits and Vegetables

The American Cancer Society suggests eating 1½ to 2½ servings of fruit and 2½ to 4 servings of vegetables every day to stay healthy and help prevent disease.

Fruits and Vegetables – Goal Every Day	
Females	<ul style="list-style-type: none"> <li>• 1½ to 2 servings of fruit</li> <li>• 2 to 3 servings of vegetables</li> </ul>
Males	<ul style="list-style-type: none"> <li>• 2 to 2½ servings of fruit</li> <li>• 3 to 4 servings of vegetables</li> </ul>
1 Serving is Equal to	
Fruits	Vegetables
1 cup of fresh, frozen or canned fruit	1 cup of raw, cooked, frozen or canned vegetables
½ cup of dried fruit	2 cups of raw leafy salad greens
1 cup of 100% fruit juice	1 cup of 100% vegetables juice

## Benefits of Fruits and Vegetables

Fruits and vegetables give your body nutrients that help you stay healthy and alive. They contain:

- **Vitamins and minerals:** Many vitamins and minerals are found in fruits and vegetables. The body uses these nutrients every day to help the body work properly and support the immune system. If the body does not get enough vitamins and minerals, it can lead to illness and increase the risk of chronic diseases.
- **Phytochemicals:** Phytochemicals, also called phytonutrients, are found only in plant foods, like fruits and vegetables. They help your body stay healthy and reduce inflammation, boost your immune system and protect you from illness. For the biggest health benefit, eat a mix of colorful fruits and vegetables, such as dark green, red, orange and blue-purple fruits and vegetables every day.
- **Fiber:** Fiber comes in different types and is found in the skin, seeds and flesh of fruits and vegetables. It helps clean out your digestive system and keeps bowel movements regular. Fiber also slows down how sugar is absorbed, which helps you feel full and keeps blood sugar levels steady. Some types of fiber feed the good bacteria in your digestive system and protect your intestines.

If you eat well and digest food normally, try to eat whole fruits and vegetables with every meal. You can eat them raw, steamed or roasted. Adding chopped vegetables to recipes is a simple way to eat more.

## Blending Fruits and Vegetables

Drinking blended fruits and vegetables can help you take in more servings. Blending is better than juicing, since juicing removes the fiber. Even though blending breaks fiber into smaller pieces, the quality of the nutrients is the same if you drink it soon after blending it. For example, one 8-ounce smoothie equals 2 servings of fruits or vegetables.

A standard kitchen blender easily blends most fresh and frozen fruits, leafy green vegetables and soft vegetables like cucumbers and zucchini. To blend hard vegetables like carrots, beets and celery, use a high-powered blender or cook them first. There is no limit to the combination of fruits and vegetables to blend together. Over time, you will find flavors that you like.

## **Recipes With Fruit and Vegetable Servings**

### **Basic Green Smoothie (5 to 6 servings)**

- 2 cups liquid: Your choice of water, juice, nectar, yogurt, any milk or green tea. Adding green tea will add caffeine.
- 4 cups fruit, fresh or frozen
- 2 to 4 cups fresh, raw greens: spinach, kale, Swiss chard, collard greens, beet greens

**Optional:** Add ice if using only fresh fruits and vegetables. Add ½ banana or oatmeal to thicken. For a small blender, make ¼ of the recipe: ½ cup liquid, 1 cup fruit, 1 cup raw greens. **(1 ½ servings)**

**For a single serving:** Use only 1 to 1½ cups liquid, 2 cups fruit and 1 to 2 cups vegetables **(2 ½ to 3 servings)**

### **Pineapple Cucumber Smoothie - Single Serving (2 to 2 ½ servings)**

- ¾ cup fresh or frozen pineapple chunks
- ½ banana, fresh or frozen
- 1 cup of spinach
- 3 inches English cucumber, cut into chunks
- ½ cup milk of choice
- 2 tablespoons plain yogurt

### **Power Green Smoothie (3 ½ servings)**

- 1½ cups milk of choice or yogurt
- 1 banana, fresh or frozen
- 2 cups raw baby spinach
- 1 kiwi, peeled and sliced
- 1 cup frozen mango
- 1 tablespoon agave nectar or honey

### **Blueberry Pumpkin Smoothie (2 ¾ servings)**

- 2 cups milk of choice
- 1 cup frozen blueberries
- 1 frozen banana
- ¾ cup canned pumpkin puree
- ½ cup almond butter
- 1 tablespoon maple syrup
- 1 teaspoon vanilla extract
- ½ teaspoon cinnamon

### **Rainbow Vegetable Smoothie (5 ½ to 6 servings)**

- 1 cup water
- 1 English cucumber, coarsely chopped
- ½ lemon, peeled and deseeded
- 1 apple, quartered and cored
- 4 carrots, quartered
- 1-inch piece fresh ginger root
- 2 cups fresh kale, stems removed
- 2 cups ice

### **Blending Instructions for All Recipes**

Wash raw fruits and vegetables well. Place all ingredients in a blender in the order listed. Secure the lid. Blend everything for about 30 seconds or until it looks smooth. Follow your blender's

instructions. If it is too thick, add a little liquid. Store leftovers in a clean glass or plastic container in the refrigerator. Drink within 48 hours, or 2 days, so it stays fresh and safe.

It is best to keep the edible skins and seeds on fruits and vegetables. They contain fiber and important nutrients. Remove the skins and seeds if your care team tells you to or if the recipe calls for it. You can also cook your fruits and vegetables to make them easier to blend; this can increase nutritional value in some options but may lower the nutrition value of others. **Try adding these optional ingredients for variety:**

- **Fiber:** Seeds, prunes, psyllium husk, oats, nuts, bran cereal
- **Sweetener:** Dates, agave nectar, honey, stevia, maple syrup, monk fruit
- **Flavor:** Fresh ginger, cinnamon, nutmeg, cocoa powder, cardamom, mint, basil, turmeric and extracts like vanilla, almond, hazelnut

## Smoothies as Meals

Side effects of cancer and its treatments may cause nausea and reduce your appetite. If solid foods give you problems, try to drink smoothies in place of solid food. Make sure your smoothie has protein and fat for balanced nutrition. If you lose weight, add extra protein and fat to help maintain your strength and muscle. Add some of these ingredients:

- **Protein:**
  - Cottage cheese
  - Cow's milk and high protein milk alternatives, like soy or protein fortified nut milk
  - Kefir: A yogurt-like drink
  - Plain yogurt
  - Protein powders
  - Tofu
  - Wheat germ, nuts, nut butters and seeds: chia, ground flax, hemp
- **Fat:**
  - Avocado
  - Nuts, nut butters, seeds
  - Plant oils: coconut, flaxseed, olive, avocado
  - Whole-milk yogurt, half and half
  - Coconut: shredded and unsweetened or coconut milk
  - Medium-chain triglyceride (MCT) oil: If you use this fat supplement, pour it into a waterproof container as it may leak through paper or foam.

## Contact Information

### Clinical Nutrition

Monday through Friday, 8 a.m. to 5 p.m.  
713-563-5167

If you would like to speak with a dietitian, ask your care team for a consult or send a message through MyChart. You can also call the department to make an appointment with a dietitian.