

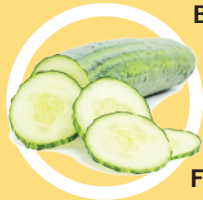
# Fruits and vegetables may help you live healthier

Use this chart as a guide for selecting your five-a-day servings of fruits and vegetables. Be sure to choose fruits and vegetables in a variety of colors to get the most preventive and risk reduction benefits.

## Purple & Blue Produce



**Fruits:** Blueberries, blackberries, purple grapes, plums, raisins  
**Benefits:** Phenolic acids, fiber, indoles, coumarin, anthocyanins



**Fruits:** Green apples, green grapes, honeydew melon, kiwi fruit, limes, pears  
**Benefits:** Flavonoids, phenolic acids, vitamin C, glucarates, indoles, isothiocyanates

## White Produce



**Fruits:** Bananas, white nectarines, white peaches  
**Benefits:** Fiber, flavonoids, phenolic acids, indoles, selenium, allicin, isothiocyanates



**Fruits:** Apples, apricots, cantaloupe, grapefruit, lemon, mangoes, nectarines, oranges, peaches, pineapple, tangerines  
**Benefits:** Flavonoids, phenolic acids, carotenoids, vitamin C, fiber

## Red Produce



**Fruits:** Red apples, cherries, cranberries, red grapes, pink grapefruit, raspberries, strawberries, watermelon  
**Benefits:** Flavonols, fiber, phenolic acids, carotenoids, anthocyanins



**Vegetables:** Purple asparagus, purple cabbage, eggplant, purple Belgian endive



## Green Produce

**Vegetables:** Artichokes, arugula, asparagus, broccoli, brussels sprouts, green beans, green cabbage, celery, cucumbers, endive, leafy greens, lettuce, peas, spinach, watercress, zucchini



**Vegetables:** Cauliflower, garlic, kohlrabi, mushrooms, onions, potatoes (white fleshed), turnips



## Yellow & Orange Produce

**Vegetables:** Carrots, yellow peppers, yellow potatoes, pumpkin, summer/winter/butternut squash, sweet potatoes



**Vegetables:** Beets, red peppers, radishes, red onions, red potatoes, rhubarb, tomatoes

## Terminology

- Allicin** – antioxidant, anti-inflammatory
- Anthocyanins** – known to be an antioxidant
- Antioxidants** – substances that can prevent or slow damage from free radicals
- Coumarins** – antimicrobial, antiviral, anti-inflammatory, anti-diabetic, antioxidant
- Carotenoids** – antioxidant
- Fiber** – helps regulate use of sugars in the body
- Flavonoids** – a phytonutrient

- Free Radicals** – unstable atoms in the environment that damage cells causing illness and aging
- Calcium D Glucarate** – detoxifying
- Indoles** – shown to prevent various cancer types
- Isothiocyanates** – detoxifying
- Phenolic acids** – known to be an antioxidant
- Phytonutrient** – natural substance in some plants that are antioxidant and anti-inflammatory
- Selenium** – antioxidant, fights stress
- Vitamin C** – reparative, essential nutrient

# Who We Are

The Masonic Cancer Center creates a collaborative research environment focused on the causes, prevention, detection, and treatment of cancer; applying that knowledge to improve the quality of life for patients and survivors; and sharing its discoveries with other scientists, students, professionals, and the community.



Learn more about the Masonic Cancer Center

[cancer.umn.edu](http://cancer.umn.edu)

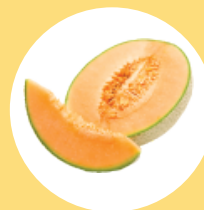
1-888-226-2376 or 612-624-2620

Access additional Cancer Fighting Foods resources and educational materials for all ages at the MCC Education Online Learning site

[cancer.umn.edu/coe/resource-library-0](http://cancer.umn.edu/coe/resource-library-0)



# Cancer Fighters



# The 5 A Day Program

The 5 A Day for Better Health Program encourages eating five servings or more of a variety of colorful fruits and vegetables every day to help reduce your risk for some types of cancer and other diseases.

**Fruits and vegetables have nutrients called phytochemicals. Research findings show that phytochemicals may:**

- Act as antioxidants
- Stimulate detoxification enzymes
- Positively effect hormones
- Act as antibacterial or antiviral agents
- Stimulate the immune system

Diets rich in fruits and vegetables may lower the risk of cancers of the lung, mouth, pharynx, esophagus, stomach, colon and rectum, breast, pancreas, ovaries, larynx, and bladder.

*Food, Nutrition and the Prevention of Cancer: A Global Perspective* reviewed thousands of studies from researchers around the world and found cancer rates could be reduced by more than 20% if people increased their intake of fruits and vegetables to at least five servings a day.

**While eating fruits and vegetables may make a difference, please note:**

- No single fruit or vegetable reduces cancer risk.
- Only fruits and vegetables, not pills and supplements, provide beneficial phytochemicals.
- Healthy eating coupled with activity and lifestyle choices can lead to better health.

## Why is Nutrition so Important?

Cancer is a leading cause of death in Minnesota and throughout the United States. Various studies indicate that low-fat diets rich in fruits and vegetables and low in saturated fats and cholesterol may help reduce the risk of some types of cancer, a disease associated with many factors.

# Be Smart About Meat

Research at the Masonic Cancer Center has linked consuming processed, red, and charred or blackened meats to higher cancer risk for colorectal, pancreatic, and prostate cancers. These meats are chemically changed in processing, cooking, and digestion which has been shown to damage human DNA when consumed. Damaged DNA can lead to cancer.

**Processed meat** is meat that is changed by salting, curing, fermentation, smoking or other processes to enhance flavor or improve preservation. Examples include bacon, sausage, hot dogs, and lunch meats.



**Red meat** is muscle meat, such as beef, veal, pork, lamb, horse, and goat meat.

Meats cooked at **high temperatures** such as blackened or burned meat or crispy bacon. These meats are chemically changed during cooking and digestion which may damage DNA.



**Safer Ways to Barbeque:**

- Avoid exposure to the smoke which may contain carcinogens.
- Use gloves when removing charred residues from cooking surfaces and utensils.
- Don't overcook meat, avoid eating well done or charred meat.
- Flip meat often and use marinades to minimize formation of carcinogens.

## Using Food to Combat Cancer

Researchers at the Masonic Cancer Center have linked cruciferous vegetable consumption to decreased cancer development. Chemicals called glucosinolates in these vegetables are thought to mediate this anti-cancer effect. Epidemiology studies suggest that eating more cruciferous vegetables might lower the risk of tobacco-related lung cancer.

# Meal Planning

Adding more whole, unprocessed food into your routine doesn't have to be difficult. Start small and expand as you discover your new favorite foods, ingredients, recipes, and planning procedures.

## Start Easy!

- Keep some fruit (including dried fruit) within reach – in the kitchen, at your desk, in your bag, backpack, or car.
- Drink more water! Hydration is very important for our health, so challenge yourself at least 8 cups of water each day.
- Buy ready to eat fruits and vegetables to save time preparing healthy snacks and meals.
- Add a salad to your dinner, extra veggies on your sandwich, put apples in your tuna salad, mix in frozen berries to your yogurt.



## Make it Tasty!

- Try out some dips such as hummus, peanut butter, or salad dressing or Parmesan cheese to enhance your veggie snacking.
- Roast fruits and vegetables to enhance the flavor – just drizzle some olive oil and bake! Top fruits with honey or cinnamon.
- Get creative with seasoning! Start with lemon juice, olive oil, and fresh herbs. The more you try the more you'll learn what you like.



## Make a Plan – and Stick to It!

- Make it a family affair and get everyone involved in creating a grocery list and meal planning.
- Keep track of the fruits and veggies you're eating each day and set goals for the family to monitor your progress each week.
- Set specific preparation and meal times and stick to it as much as possible. Make preparation fun – listen to your favorite playlist while you prep!
- Find tracking resources and more at [z.umn.edu/MCOnline](http://z.umn.edu/MCOnline)



# It's All About Balance

**Moderation  
Exercise**



**Eat Well  
Don't Smoke**

Eating well isn't difficult when you practice moderation and make healthy lifestyle choices.

- Focus on getting in your fruits and vegetables for nutrients your body needs.
- Choose your proteins wisely and be selective when consuming red, processed, and charred meats.
- Hydrate your body by getting in at least 8 cups of water every day.
- Exercise regularly.
- Don't smoke.
- Consume alcohol occasionally and in moderation.
- Consider your mental and emotional health by practicing meditation, yoga, mindfulness, or seeking a counselor.

## Making Simple Swaps

To get more produce into your diet, you can simply replace other food groups, like carbs. You can still eat garlic bread with your pasta, but think about ways to swap ingredients and replace with fruits and vegetables to create some balance in your meal planning.

**Here are some ways to get you started:**



Traditional Pasta



Chickpea Pasta



Rice White



Cauliflower Rice

# Grocery List

## MEAT

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## DAIRY

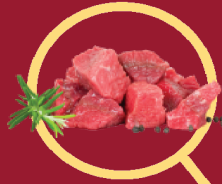
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## PRODUCE

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## OTHER

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# Meal Planning



Use this planner to help choose your meals and plan to get your daily 5 of more servings of fruits and vegetables

Meal Day	M	T	W	TH	F	S
Breakfast						
Lunch						
Dinner						
Snack						
# of fruits & veggies						