

EATING TO BUILD YOUR IMMUNE SYSTEM



Betty Paul RD

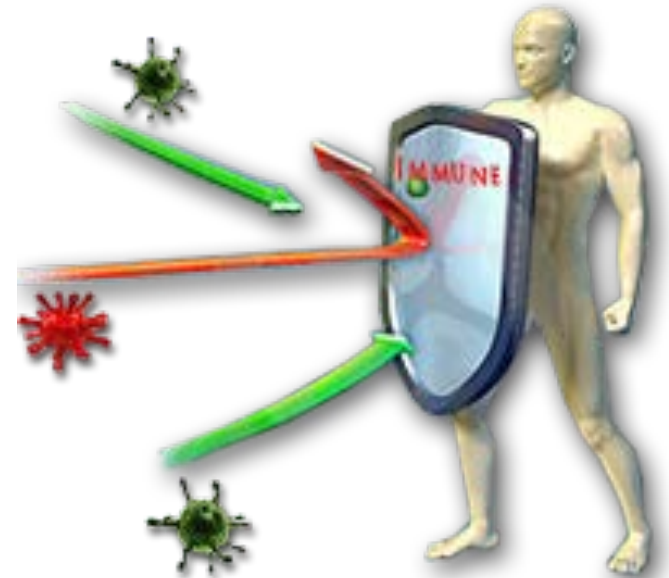
DISORDERS OF THE IMMUNE SYSTEM

- ▶ Autoimmune Diseases
- ▶ Inflammatory Disease
- ▶ Cancer
- ▶ Obesity, alcoholism, and drug use are common causes of poor immune functions
- ▶ Malnutrition and insufficient protein are also causes of poor immune function
- ▶ Inherited or acquired such as AIDS cause poor immune functions
- ▶ Overnutrition is associated with diseases such as diabetes and obesity



GI AND IMMUNITY

- ▶ Stomach, gastric acid, and proteases serve as powerful chemical defenses against ingested pathogens.
- ▶ Within the gastrointestinal tracts, commensal flora serve as biological barriers.
- ▶ Food rich in certain fatty acids may foster a healthy immune system.



NUTRIENTS THAT BUILD THE GI

- ▶ Polyphenols
- ▶ Beta-glucans
- ▶ Carotenoids
- ▶ Cysteine
- ▶ Red wine
- ▶ Capsaicin



POLYPHENOLS

- ▶ Artichoke hearts
- ▶ Blueberries
- ▶ Strawberries
- ▶ Blackberries
- ▶ Plums
- ▶ Flaxseed
- ▶ Dark chocolate
- ▶ Black and green tea



BETA-GLUCANS

- ▶ Oats
- ▶ Barley
- ▶ Mushrooms
- ▶ Yeast
- ▶ Seaweed



CAROTENOIDS

- ▶ Sweet potatoes
- ▶ Carrots
- ▶ Carrot and tomato juices
- ▶ Pumpkin
- ▶ Cantaloupe and apricots
- ▶ Spinach
- ▶ Broccoli



CYSTEINE

- ▶ Eggs
- ▶ Cottage cheese
- ▶ Poultry
- ▶ Ricotta cheese
- ▶ Yogurt
- ▶ Oats
- ▶ Broccoli
- ▶ Red pepper
- ▶ Garlic



RED WINE



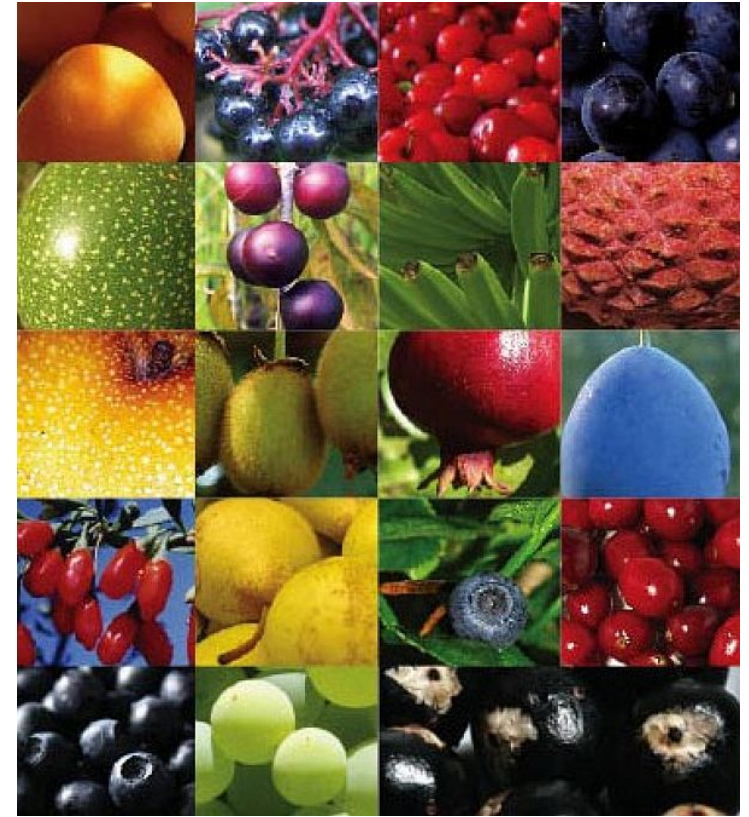
CAPSAICIN

- ▶ Habanero chili — 100,000 to 300,000 units
- ▶ Jamaica pepper — 100,000 to 200,000 units
- ▶ Africa birdseye — 100,000 units
- ▶ Thai pepper — 50,000 to 100,000 units
- ▶ Cayenne pepper — 30,000 to 50,000 units
- ▶ Jalapeno pepper — 2,000 to 8,000 units
- ▶ Anaheim — 500 to 2,000 units



ANTIOXIDANTS THAT PROMOTE IMMUNE HEALTH

- ▶ Beta-carotene
- ▶ Lutein
- ▶ Lycopene
- ▶ Selenium
- ▶ Vitamin A
- ▶ Vitamin C
- ▶ Vitamin E



BETA-CAROTENE

- ▶ Sweet potato
- ▶ Carrots
- ▶ Dark leafy greens–spinach
- ▶ Squash
- ▶ Cantaloupe
- ▶ Sweet peppers
- ▶ Dried apricots
- ▶ Peas
- ▶ Broccoli



LUTEIN

- ▶ Kale
- ▶ Spinach
- ▶ Dandelion greens
- ▶ Paprika
- ▶ Cayenne pepper
- ▶ Turnip greens



LYCOPENE

- ▶ Guavas
- ▶ Watermelon
- ▶ Tomatoes
- ▶ Papaya
- ▶ Pink grapefruit
- ▶ Sweet red peppers
- ▶ Asparagus (cooked)
- ▶ Mango
- ▶ Red cabbage
- ▶ Carrots



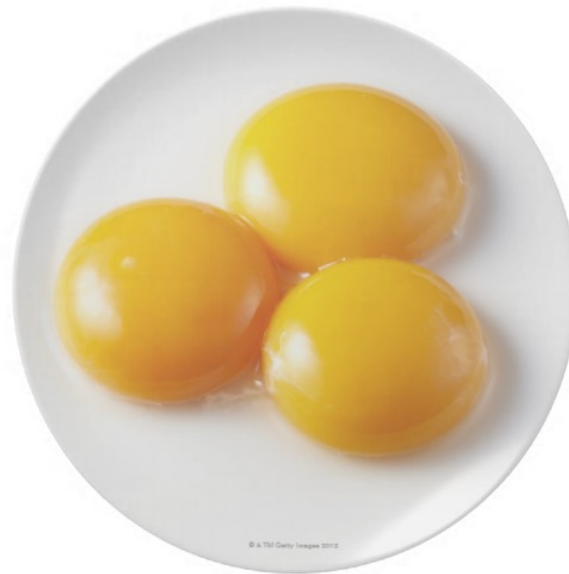
SELENIUM

- ▶ Brazil nuts
- ▶ Oysters
- ▶ Tuna
- ▶ Whole wheat bread
- ▶ Sunflower seeds
- ▶ Pork: lean tenderloin
- ▶ Beef and lamb
- ▶ Chicken and Turkey
- ▶ Mushrooms
- ▶ Whole Grains (Rye)



VITAMIN A

- ▶ Liver
- ▶ Sweet potatoes
- ▶ Carrots
- ▶ Egg yolks
- ▶ Milk



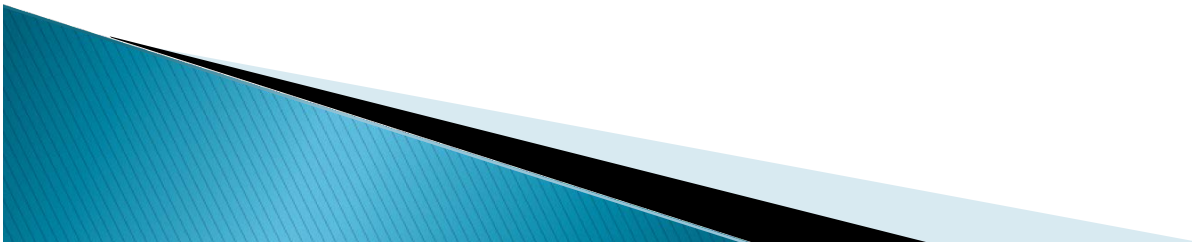
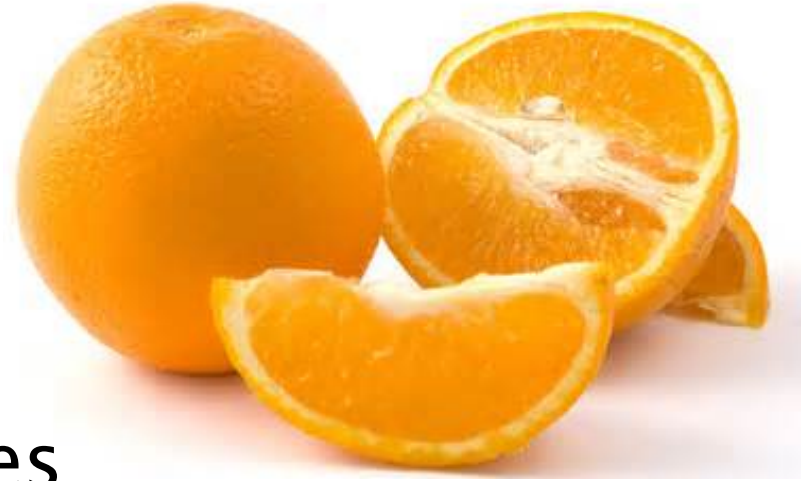
VITAMIN E

- ▶ Almonds
- ▶ Oils
- ▶ Mangos
- ▶ Nuts
- ▶ Broccoli



VITAMIN C

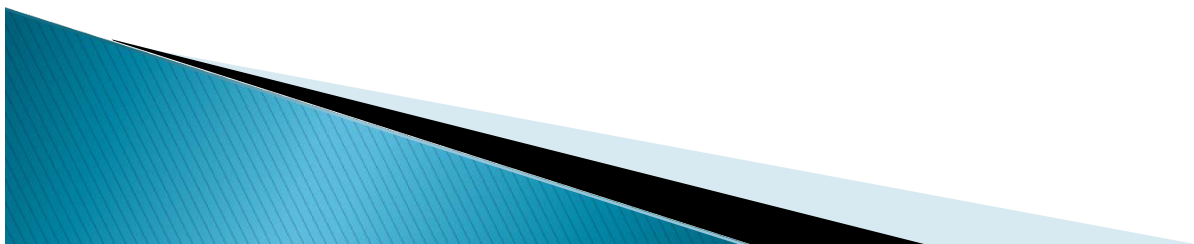
- ▶ Peppers
- ▶ Guavas
- ▶ Dark green leafy vegetables
- ▶ Kiwi
- ▶ Broccoli
- ▶ Oranges
- ▶ Strawberries
- ▶ Tomatoes
- ▶ Peas
- ▶ Papaya



PROBIOTICS

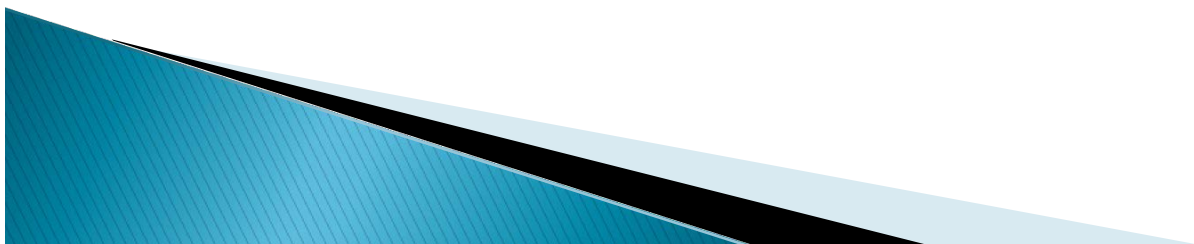
- ▶ What are they used for?
 - Diarrhea, gas, cramping caused by antibiotics. UTIs, infections in the digestive tract, IBD/IBS
- ▶ Supplement form
 - USProbiotics.org (<http://www.usprobiotics.org/>)
 - Herbs and Supplements, MedlinePlus (<http://nlm.nih.gov/medlineplus/druginfo/herbAll.html>)

Are they safe?: Young children, the elderly, pregnant, and people with compromised immune systems.



FOODS THAT CONTAIN PROBIOTICS

- ▶ Fermented dairy products
- ▶ Other foods currently claiming to provide probiotics are cereal, juice, frozen yogurt, granola, candy bars, and cookies.



3 NATURAL WAYS TO BUILD YOUR IMMUNE SYSTEM

- ▶ SLEEP
 - ▶ EXERCISE
 - ▶ EAT FRUITS AND VEGETABLES
- ▶ THANK YOU



References

- ▶ WomensHealthMag.com
- ▶ American Institute for Cancer Research
- ▶ WebMD
- ▶ Livingstrong.com
- ▶ Recipes from:
 - Spark People
 - Recipes that Crock
 - All recipes.com
 - Taste of Home
 - Terry's Berries
 - Simply Recipes
 - Eating Well

