

# Let Food Be Thy Medicine-

Exploring the health benefits of foods &  
phytonutrients

Ashley Harris, MS, RD, LD – Fresh Food Fresh Perspective  
Healthy Columbus Nutrition Seminar  
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“Let food be thy medicine  
and medicine be thy food”

Hippocrates  
(460-377 BC)

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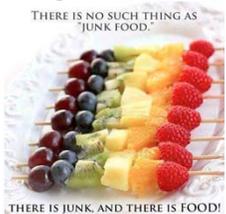
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## Outline



- History & background on healing foods
- How foods heal
- Why foods heal
- Best food choices
- Foods for specific conditions



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## History

- Food used for thousands of years as medicine
  - Bible references ~4,000 years ago note foods and herbs used for medicinal purposes



- Stems across many cultures
  - (i.e. Chinese yin-yang foods, Indian principles of Ayurveda, Greek medicine)

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## How can foods heal?

- Prevent or fight chronic disease
  - Cancer, heart disease, diabetes
- Cure acute medical conditions
  - UTI, high cholesterol, colds, indigestion
- Improve mental states
  - Depression, anxiety, stress



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## Fact or Fiction?

- Modern science has proven many traditional healing foods actually do contribute to health and can have medicinal properties
- Some traditional healing foods more fiction than fact (i.e. pigs ears to cure cancer)



- Some foods with some healing properties have falsely elevated claims (i.e. honey and cinnamon)

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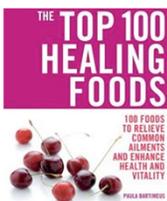
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### Which are the best?

- So many claims!!
- No true "superfoods"
  - Many are good but not better over others
  - Variety is key!!



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### Why do foods heal?

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### Health benefiting food components

- Macronutrients
  - Protein, fats, carbohydrates
- Vitamins, minerals
- Other nutrients
  - Fiber, pre/pro-biotics
- Phytochemicals

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### Macronutrients

- **Protein**- building blocks of life (make up muscles, hormones, genes, immune cells, brain chemicals, etc)



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### Macronutrients

- **Fats** – energy reserve, cushions organs, transports fat-soluble nutrients, provides structure to cell membranes



- **Monounsaturated fats (olive oil, nuts, avocados)** = protect against high blood pressure, cholesterol, heart disease



- **Omega-3 fatty acids (fatty fish, shellfish, walnuts)** = improve cardiovascular health, decrease inflammation, relieve depression

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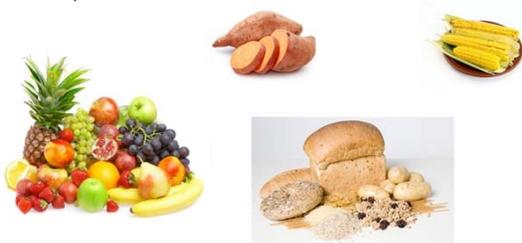
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### Macronutrients

- **Carbohydrates** – most efficient fuel source for the body & necessary for certain organs to function (i.e. brain)



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### Vitamins & Minerals

Vitamin/Mineral	May be helpful for	Where to find it
Calcium	Osteoporosis, anxiety & stress, blood pressure, PMS	Broccoli, dairy products, almonds, tofu, canned fish w/ bones
Folate	Anemia, depression, heart disease, infertility, insomnia, osteoporosis, pregnancy, rheumatoid arthritis	Asparagus, avocados, beans, beets, broccoli, cabbage, citrus fruits, cooked greens, corn, lentils, peas, rice, spinach
Iron	Anemia, immune deficiency, memory loss, pregnancy	Apricots, fatty fish, figs, lentils, meat, peas, poultry, shellfish, beans
Magnesium	Anxiety & stress, fatigue, constipation, diabetes, blood pressure, kidney stones, migraine, PMS	Avocados, grains, nuts, rice, seeds, shellfish, spinach, winter squash
Selenium	Allergies, macular degeneration, prostate problems	Meats, mushrooms, nuts, poultry, rice, seeds, shellfish, whole grains
Vitamin B6	Acne, anemia, anxiety & stress, depression, heart disease, insomnia, memory loss, PMS, pregnancy	Asparagus, bananas, fatty fish, figs, mushrooms, peas, potatoes, rice
Vitamin B12	Anemia, depression, heart disease, infertility	Dairy products, fish, meat, poultry
Vitamin C	Allergies & asthma, cataracts, CFS, colds & flu, eczema, heart disease, hemorrhoids, immune system, blood pressure, osteoarthritis, sinusitis, stress, sprains	Berries, cabbage, citrus fruits, kiwi, peppers, strawberries, spinach, melons, tomatoes, turnips
Vitamin E	Branchitis, cancer, cataracts, memory loss, macular degeneration, prostate, rheumatoid arthritis	Avocados, grains, nuts, olive oil, salad greens, seeds
Zinc	Acne, colds & flu, cold sores, rosacea, sinusitis	Beans, grains, meat, poultry, shellfish

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### Other Nutrients

- **Soluble fiber** (apples, apricots, beans, berries, pumpkin, prunes, oats, figs) – lowers cholesterol, helps manage diarrhea/constipation
- **Insoluble fiber** (fruits/veggies, whole grains, flax) – fights cancer, manages constipation
- **Probiotics** (yogurt, fermented products) – helps immune system, diarrhea, obesity, UTI's, infection

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### Phytochemicals

- aka phyto-nutrients
- Give plants distinctive color, smell, taste
- Provide MANY health benefits
  - Especially for fighting cancer!!



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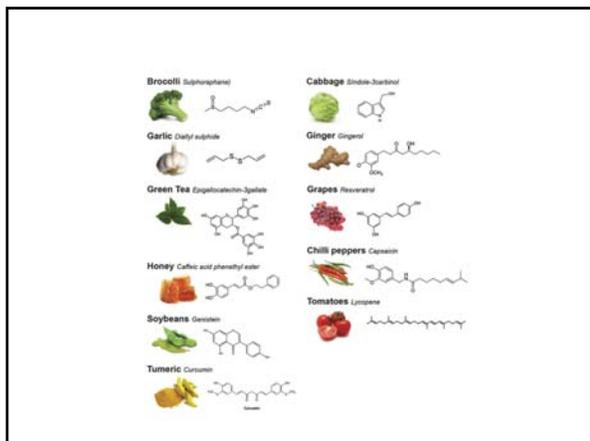
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### AICR Phytochemical Chart

Phytochemical(s)	Plant Source	Possible Benefits
Carotenoids (such as beta-carotene, lycopene, lutein, zeaxanthin)	Red, orange and green fruits and vegetables including broccoli, carrots, cooked tomatoes, leafy greens, sweet potatoes, winter squash, spinach, cantaloupe, oranges and watermelon	May inhibit cancer cell growth, work as antioxidants and improve immune response
Flavonoids (such as anthocyanins and quercetin)	Apples, citrus fruits, onions, soybeans and soy products (tofu, soy milk, edamame, etc.), coffee and tea	May inhibit inflammation and tumor growth; may aid immunity and boost production of detoxifying enzymes in the body
Isoflavones and glucosinolates (isoflavones)	Cruciferous vegetables (broccoli, cabbage, collard greens, kale, cauliflower and Brussels sprouts)	May induce detoxification of carcinogens, limit production of cancer-related hormones, block carcinogens and prevent tumor growth
Inositol (phytic acid)	Bran from corn, oats, rice, rye and wheat, nuts, soybeans and soy products (tofu, soy milk, edamame, etc.)	May retard cell growth and work as antioxidant
Isoflavones (daidzein and genistein)	Soybeans and soy products (tofu, soy milk, edamame, etc.)	May inhibit tumor growth, limit production of cancer-related hormones and generally work as antioxidant
Isothiocyanates	Cruciferous vegetables (broccoli, cabbage, collard greens, kale, cauliflower and Brussels sprouts)	May induce detoxification of carcinogens, block tumor growth and work as antioxidants
Polyphenols (such as ellagic acid and resveratrol)	Green tea, grapes, wine, berries, olive fruits, apples, whole grains and peanuts	May prevent cancer formation, prevent inflammation and work as antioxidants
Terpenes (such as perillyl alcohol, limonene, camphor)	Flowers, citrus fruit peel, rosemary	May protect cells from becoming cancerous, slow cancer cell growth, strengthen immune function, limit production of cancer-related hormones, fight viruses, work as antioxidants

[http://www.aicr.org/reduce-your-cancer-risk/diet/elements\\_phytochemicals.html](http://www.aicr.org/reduce-your-cancer-risk/diet/elements_phytochemicals.html)

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## RED

- Improves prostate Health
  - Clinical trials at OSU using tomato juice to fight prostate cancer!
- Improves urinary tract health
- Improves memory

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## ORANGE/YELLOW

- Helps maintain vision, keeps skin healthy and heal cuts
- Helps keep immune system strong and especially fight colds




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## GREEN

- Improves circulation
- Keeps bones and teeth strong
- Prevents cataracts and eye disease




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## BLUE/PURPLE



- Prevents symptoms of aging – keeps you looking and feeling young!
- Prevents blood clots
- Improves memory

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## WHITE/TAN

- Lowers cholesterol
- Helps with joint pain
- Fights inflammation




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## What are the best foods?

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## My favorite healing foods

- **ALL** plant foods
  - Fruits, vegetables, whole grains, nuts, seeds, beans, legumes, flaxseed, herbs & spices, olive oil
- Fish
  - especially cold-water, fatty fish like salmon, sardines
- Fermented products
  - Yogurt, kimchi, sauerkraut, miso
- Teas
  - Green, black, white, herbal
- Eggs




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**Acne**

- **Beta-carotene**  
(apricots, asparagus, sweet potatoes, winter squash)
- **Vitamin B6**  
(avocados, bananas, potatoes, salmon)
- **Zinc**  
(crab, oysters, tofu, turkey)




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## Asthma & Allergies



- **Magnesium**  
(amaranth, avocados, quinoa, sunflower seeds)
- **Quercetin**  
(apples, berries, cherries, red onion)
- **Selenium**  
(brazil nuts, fish, oysters, sunflower seeds)
- **Vitamin C**  
(broccoli, citrus fruits, strawberries)

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## Anxiety & Stress



- **Calcium**  
(broccoli, cooking greens, dairy products, figs)
- **Complex carbohydrates**  
(beans, potatoes, rice, whole grains)
- **Magnesium**  
(amaranth, avocados, sunflower seeds, wheat germ)
- **Tryptophan**  
(bananas, dairy products, peas, poultry, turnips)
- **Vitamin B6**  
(bananas, potatoes, salmon)

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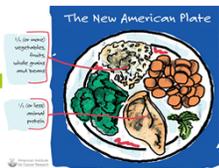
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## Cancer



- SO MANY PLANT FOODS!!!!
- Certain plant foods & phytonutrients associated with specific cancer types
  - Lycopene/tomatoes – prostate cancer
  - Berries – esophageal cancer
  - Carotenoids – breast cancer
  - Beta-carotene – lung cancer

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### Colds & Flu



- **Quercetin**  
(apples, berries, plums & prunes, red onions)
- **Vitamin C**  
(citrus fruits, kiwifruit, peppers, strawberries)
- **Zinc**  
(beef, cashews, chicken)

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### Depression



- **Folate**  
(asparagus, lentils, peas, salad greens)
- **Omega-3 fatty acids**  
(fatty fish, shellfish, walnuts)
- **Tryptophan**  
(bananas, dairy products, peas, poultry)
- **Vitamin B-12**  
(dairy products, fatty fish, poultry, shellfish)
- **Vitamin B-6**  
(bananas, peas, potatoes)

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### Diabetes



- **Complex carbohydrates**  
(beans, potatoes, rice, whole grains)
- **Fiber**  
(vegetables, whole grains, beans, lentils)
- **Magnesium**  
(amaranth, brown rice, sunflower seeds)
- **Monounsaturated fat**  
(avocados, canola oil, nuts, olive oil)
- **Vitamin C**  
(bell peppers, broccoli, citrus fruits)

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### Heart Disease

- **Soluble fiber**  
(beans, carrots, oats)
- **Folate**  
(asparagus, lentils)
- **Monounsaturated fat**  
(avocados, olive oil)
- **Omega-3 fatty acids**  
(Fatty fish, flaxseed, shellfish, walnuts)
- **Soy**  
(tofu, edamame, miso)



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### Memory

- **Flavonoids**  
(blueberries, strawberries)
- **Isoflavones**  
(soy products- tofu, soy milk, edamame, miso)
- **Monounsaturated fat**  
(avocados, olive oil)
- **Vitamin E**  
(avocados, seeds)



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### Questions??



**THANK YOU!!**

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