The Power of Phytonutrients

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What are they?

- Phytonutrients are natural chemicals or compounds produced by plants. They keep plants healthy, protecting them from insects and the sun.
- Phytonutrients have antioxidant and anti-inflammatory properties that can help support a healthy human body.
- There are thousands of phytonutrients found in plants and related foods.







RED

Red Food Compounds

Anthocyanidins
Astaxanthin
Carotenoids
Ellagic Acid
Ellagitannins
Fisetin
Flavones
Flavonols
Flavan-3-ols
Flavanones
Luteolin
Lycopene
Proanthocyanidins
Quercetin

Benefits

Anti-cancer
Anti-inflammatory
Cell protection
DNA health
Immune health
Prostate health
Vascular health

Foods

Apples
Beans *(Adzuki, Kidney, Red)*
Beets
Bell pepper
Blood oranges
Cranberries
Cherries
Grapefruit *(pink)*
Goji berries
Grapes
Onions
Plums
Pomegranate
Potatoes
Radicchio
Radishes
Raspberries
Strawberries
Sweet red peppers
Rhubarb
Rooibos tea
Tomato
Watermelon






Highlight on Lycopene

- Lycopene is a carotenoid − a natural pigment that gives some vegetables and fruits their red color. It is an antioxidant.
- Tomatoes provide about 80% of the lycopene in the US diet. Tomatoes processed with high heat contain lycopene in a form more usable by the body than in raw tomatoes
- May protect against certain cancers – slow the growth of breast and prostate tumors
- Decrease likelihood of developing certain cancers



Highlight on Anthocyanins

- There are more than 25 different anthocyanins in strawberries
- Antioxidant, anti-inflammatory, and anti-carcinogenic properties
- Influence immunity: lymphocytes, macrophages and dendritic cells
- Benefits for cardiovascular health and blood sugar support
- Protect brain health and cognition as we age



Orange

Orange Food Compounds	Benefits	Foods	
Alpha-carotene	Anti-bacterial	Apricots	Persimmons
Beta-carotene	Anti-cancer	Bell pepper	Pumpkin
Beta-cryptoxanthin	Cell protection	Cantaloupe	Squash *(acorn, buttercup, butternut, winter)*
Bioflavonoids	Immune health	Carrots	Sweet potato
Carotenoids	Reduced mortality	Mango	Tangerines
Curcuminoids	Reproductive health	Nectarine	Turmeric root
Naringenin	Skin health	Orange	Yams
	Source of vitamin A	Papaya	






Highlight on Beta-Carotene

- The human body converts beta carotene into vitamin A (retinol) - beta carotene is a precursor of vitamin A.
- We need vitamin A for healthy skin and mucus membranes, our immune system, and good eye health and vision.
- May decrease cognitive decline
- May prevent damage to lungs



Yellow

Yellow Food Compounds	Benefits	Foods	
Lutein	Anti-cancer	Apple	Millet
Rutin	Anti-inflammatory	Asian pears	Pineapple
Zeaxanthin	Cell protection	Banana	Potatoes
	Cognition	Bell peppers	Starfruit
	Eye health	Corn	Succotash
	Heart health	Corn-on-the-cob	Summer squash
	Skin health	Ginger root	
	Vascular health	Lemon	









Highlight on Lutein

- Lutein is a type of carotenoid. It is related to beta-carotene and vitamin A
- Many people think of lutein as "the eye vitamin“
- Lutein absorbs blue light



Green

Green Food Compounds	Benefits	Foods	
Catechins	Anti-cancer	Apples	Limes
Chlorogenic acid	Anti-inflammatory	Artichoke	Okra
Chlorophyll	Brain health	Asparagus	Olives
Epigallocatechin gallate	Cell protection	Avocado	Pears
Flavolignans	Skin health	Bamboo sprouts	Snow peas
Folates	Hormone balance	Bean sprouts	Watercress
Glucosinolates	Heart health	Bell peppers	Zucchini
Hydroxytyrosol	Liver health	Bitter melon	
Indole-3-carbinol		Bok choy	
Isoflavones		Broccoli	
Isothiocyanate		Broccolini	
Oleocanthal		Brussels sprouts	
Oleuropein		Cabbage	
Phenolic diterpenes		Celery	
Phytosterols		Cucumbers	
Phenols		Edamame/Soybeans	
Phenylethylisothiocyanate		Green beans	
Silymarin		Green peas	
Sulforaphane		Green tea	
Tannins		Greens *(arugula, beet, chard, collard, dandelion, kale, lettuce, mustard, spinach, turnip)*	
Theaflavins			
Thearubigins			
Tyrosol			






Highlight on Suforaphane

- Sulforaphane is a natural plant compound found in many cruciferous vegetables like broccoli, cabbage, cauliflower, and kale.
- It has been linked to health benefits, such as improved heart health and digestion
- Sulforaphane has been shown to have anticancer properties
- Remove excess estrogens from body



Blue/Purple

Blue/Purple/Black Food Compounds	Benefits	Foods	
Anthocyanidins	Anti-cancer	Bell pepper	Grapes
Hydroxystilbenes	Anti-inflammatory	Berries *(blue, black, boysenberries, huckleberries, marionberries)*	Kale
Procyanidins	Cell protection	Cabbage	Olives
Pterostilbene	Cognitive health	Carrots	Plums
Resveratrol	Heart health	Cauliflower	Potatoes
Benefits		Eggplant	Prunes
		Figs	Raisins
			Rice *(black, purple)*






Highlight on Resveratrol

- Resveratrol is part of a group of compounds called polyphenols
- Reported anti-aging and disease-fighting powers
- Help reduce inflammation, lower LDL or "bad" cholesterol, and make it more difficult for clots to form that can lead to a heart attack



White/Tan

White/Tan/Brown Food Compounds	Benefits	Foods	
Allicin	Anti-cancer	Apples	Mushrooms
Allyl sulfides	Anti-microbial	Applesauce	Nuts *(almonds, cashews, pecans, walnuts)*
Cellulose (fiber)	Cell protection	Bean dips	Onions
Lignans	Gastrointestinal health	Cauliflower	Pears
Lignins	Heart health	Cocoa	Sauerkraut
Sesamin	Hormone balance	Coconut	Seeds (flax, hemp, pumpkin, sesame, sunflower)
Sesamol	Liver health	Coffee	Shallots
Tannins		Dates	Soy
Terpenoids		Garlic	Tahini
Theobromine		Ginger	Tea *(black, white)*
		Jicama	Whole grains *(barley, brown rice, oat, quinoa, rye, spelt, wheat)*
		Legumes *(chickpeas, dried beans or peas, hummus, lentils, peanuts, refried beans / low-fat)*	









Highlight on Allicin

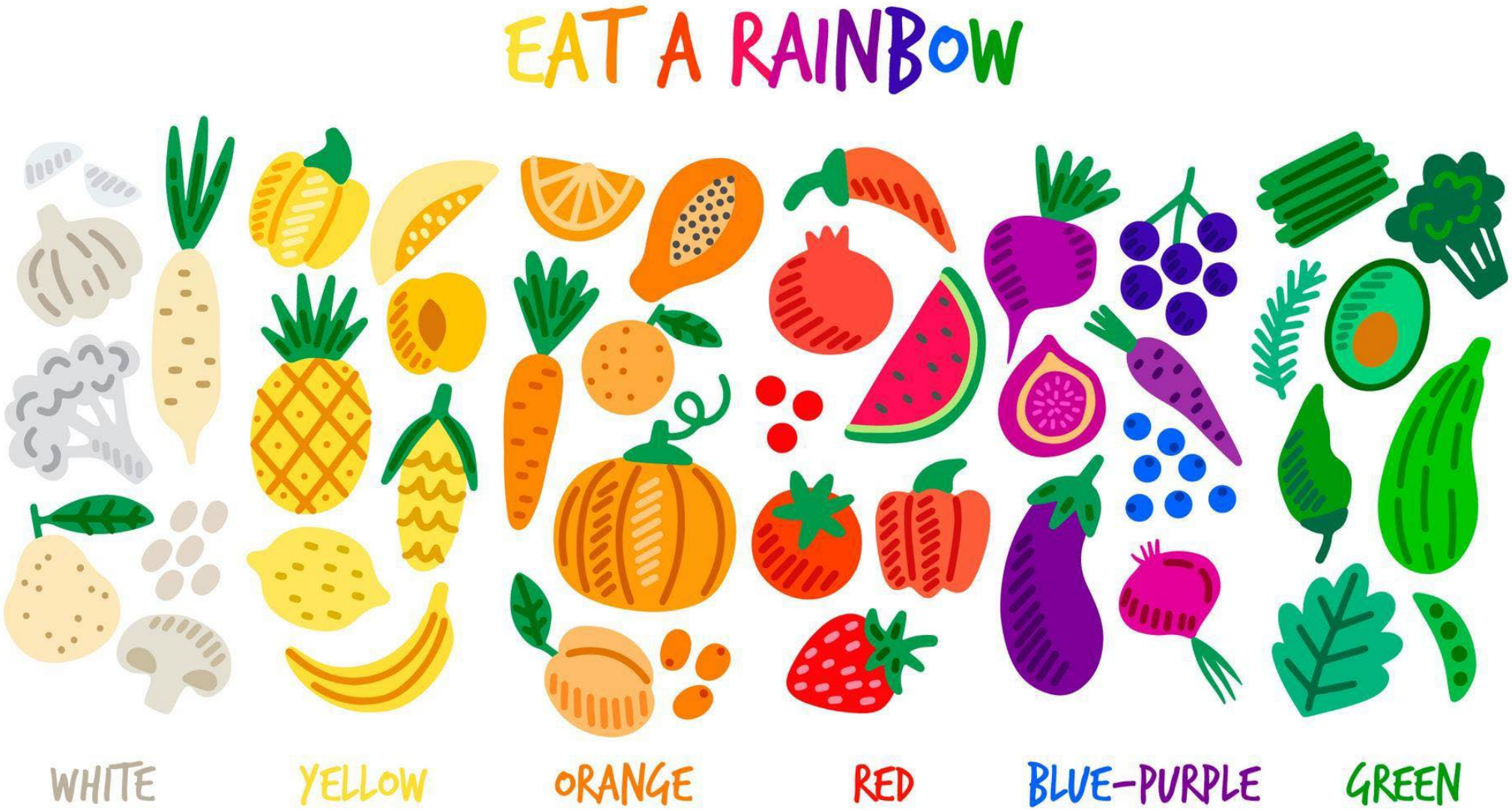
- Allicin is a compound produced when garlic is crushed or chopped
- When the clove is crushed or chopped, an enzyme, alliinase is released
- Health benefits related to better blood pressure, and improving cholesterol
- Immune boosting properties



Consider Plant Diversity



All the colors!





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Thank you!

Questions?

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