

Phytochemicals



Eat a rainbow: a guide to phytochemicals

Phytochemical(s)	Food source	Potential health benefits
Anthocyanins	<ul style="list-style-type: none"> Blackberries, blueberries, cherries, pomegranates, purple sweet potato, red apples, red cabbage, red onions 	<ul style="list-style-type: none"> Antioxidant, antimicrobial, and anti-inflammatory. May improve vision and protect against cancer and cardiovascular disease.
Carotenoids <i>beta-carotene, lycopene, lutein, zeaxanthin</i>	<ul style="list-style-type: none"> Apricots, carrots, peaches, pink grapefruit, pumpkin, red pepper, spirulina, sweet potato, turnips, tomato, watermelon, leafy green vegetables (broccoli, kale, spinach) 	<ul style="list-style-type: none"> Act as powerful antioxidants. May reduce the risk of cancer, diabetes and cardiovascular disease and enhance the immune system response. Lutein and zeaxanthin may reduce the risk of age-related macular degeneration.
Flavanols <i>catechin, epicatechin gallate, epigallocatechin gallate (EGCG)</i>	<ul style="list-style-type: none"> Apricots, blackberries, cocoa (dark chocolate), green tea, grape seed, peaches, red wine and sour cherries 	<ul style="list-style-type: none"> Antioxidant, anti-inflammatory, cholesterol-lowering and fat burning. May benefit a range of metabolic disorders including hypertension, diabetes, and cardiovascular diseases. May be beneficial for preventing or managing cancer.
Flavanones <i>naringenin, hesperidin</i>	<ul style="list-style-type: none"> Citrus fruit, herbs (oregano) and wine 	<ul style="list-style-type: none"> Anti-inflammatory, antioxidant, antiviral, anti-cancer.
Flavones <i>apigenin, luteolin</i>	<ul style="list-style-type: none"> Parsley, celery, green pepper, broccoli, carrots, olive oil, chamomile plant flowers and peppermint 	<ul style="list-style-type: none"> Anti-inflammatory, antioxidant, antiviral, anti-cancer.
Flavonols <i>quercetin, rutin, kaempferol</i>	<ul style="list-style-type: none"> Onions, leeks, broccoli, tomatoes, radish, green leafy vegetables 	<ul style="list-style-type: none"> Anti-inflammatory, antioxidant, antiviral, anti-cancer. May enhance immunity and inhibit growth of tumours. May protect against cardiovascular disease, diabetes and cognitive decline.



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Glucosinolates	<ul style="list-style-type: none"> Blackberries, blueberries, cherries, pomegranates, purple sweet potato, red apples, red cabbage, red onions 	<ul style="list-style-type: none"> Antioxidant, antimicrobial, and anti-inflammatory. May improve vision and protect against cancer and cardiovascular disease.
Carotenoids <i>beta-carotene, lycopene, lutein, zeaxanthin</i>	<ul style="list-style-type: none"> Cruciferous vegetables (Bok choy, broccoli, brussels sprouts, cabbage, cauliflower, horseradish, mustard greens, kale) 	<ul style="list-style-type: none"> Powerful antioxidants. May inhibit the action of oestrogen. May decrease the risk of cancer.
Inositol <i>phytic acid</i>	<ul style="list-style-type: none"> Beans, buckwheat, cereals, chickpeas, lecithin, lentils, nuts, quinoa, rice, seeds, soybeans and soy products (edamame, miso paste, soy milk, soy yogurt, tempeh, tofu) 	<ul style="list-style-type: none"> Antioxidant. Lowers cortisol and reduces stress response. May be beneficial for anxiety and depression. May aid blood sugar control by improving insulin sensitivity, and therefore be beneficial for diabetes, metabolic syndrome and polycystic ovary syndrome (PCOS).
Isoflavones	<ul style="list-style-type: none"> Cruciferous vegetables (Broccoli (especially broccoli sprouts), brussels sprouts, cabbage, cauliflower, garden cress, kale, mustard greens, watercress) 	<ul style="list-style-type: none"> Antioxidant, anticancer. May reduce the risk of oestrogen-sensitive cancers (breast, ovarian, colon, prostate). May decrease risk of osteoporosis. Beneficial for improving menopausal symptoms.
Isothiocyanates	<ul style="list-style-type: none"> Parsley, celery, green pepper, broccoli, carrots, olive oil, chamomile plant flowers and peppermint 	<ul style="list-style-type: none"> Act as an antioxidant May increase the activity of enzymes that function in the detoxification and elimination of toxins. May have anti-cancer and cardiovascular benefits.
Lignans	<ul style="list-style-type: none"> Apricots, cruciferous vegetables (broccoli, brussels sprouts, cauliflower, cabbage, kale), flaxseed, nuts (cashews, peanuts), seeds (sesame, sunflower, poppy, pumpkin), whole grains (barley, oats, rye, whole wheat) 	<ul style="list-style-type: none"> Anti-oestrogenic, anti-inflammatory, antioxidant and anti-carcinogenic. May block oestrogen activity and reduce the risk of breast, ovarian, prostate and colon cancer. May reduce risk of cardiovascular disease.



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Organosulfur compounds <i>allicin, alliin</i>	<ul style="list-style-type: none"> Chives, garlic, leeks, onion, shallots 	<ul style="list-style-type: none"> Antioxidant, antimicrobial, and anti-inflammatory. May reduce the risk of cancer and cardiovascular disease (by lowering cholesterol and blood pressure).
Stilbenes <i>resveratrol</i>	<ul style="list-style-type: none"> Bilberries, blueberries, cacao (dark chocolate) cranberries, mulberries, peanuts, pistachios, red wine, red grape juice 	<ul style="list-style-type: none"> Antioxidant, anti-inflammatory, cardioprotective. May prevent damage to blood vessels, reduce LDL cholesterol and prevent blood clots. May reduce risk of diabetes, cancer and Alzheimer's disease.
Tannins	<ul style="list-style-type: none"> Beans, cacao (dark chocolate), cranberries, lentils, nuts, tea 	<ul style="list-style-type: none"> Antioxidant, antimicrobial, anti-inflammatory. May reduce risk of cancer.
Monoterpenes	<ul style="list-style-type: none"> Skin and oil of citrus fruits 	<ul style="list-style-type: none"> Antibacterial, anti-inflammatory, antimicrobial, antiviral. May reduce the risk of cancer.
Diterpenes	<ul style="list-style-type: none"> Coffee, rosemary, sage, tea 	<ul style="list-style-type: none"> Anti-inflammatory, antimicrobial, antioxidant, and anti-cancer. May reduce risk of cardiovascular disease, strengthen immune function and slow cancer cell growth.