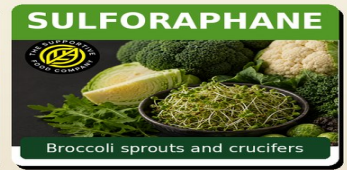
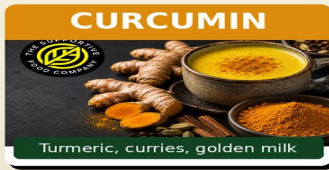


WHEN ALL ELSE HAS FAILED: THE TOP 4 FOUND IN RESEARCH



POWERFUL PLANT COMPOUNDS THAT MAY SUPPORT HEALTH,
HELP MANAGE SYMPTOMS AND SUPPORT THE BODY'S NATURAL DEFENCES.



FOOD FIRST. NOT A CURE. ALWAYS SPEAK TO A HEALTHCARE PROFESSIONAL.

Printable handout based on the Supportive Food article: Curcumin, EGCG, Quercetin and Sulforaphane.

Important: none of these should be described as a complete cure for disease. The safer, evidence-based wording is that they may support certain biological pathways and may be useful as adjuncts in some conditions, especially when obtained through whole foods.

In layman's terms: there is no guarantee of cure. These foods and compounds may support the body, help manage symptoms, and may help reduce risk factors in some contexts, but they should not replace medical treatment - especially for serious conditions such as cancer, Parkinson's disease, arthritis, diabetes, liver disease, or heart disease.

Quercetin



Quercetin is a flavonoid found in foods such as onions, apples, berries, broccoli, tea, citrus fruits, and red grapes. It is studied for antioxidant, anti-inflammatory, immune-modulating, and possible antiviral effects. The NIH Office of Dietary Supplements says it may enhance immune function, reduce inflammation, and protect against viruses, but evidence for reducing respiratory infection risk or COVID severity remains unclear.

Possible upsides: the best human evidence is modest. A 2024 meta-analysis of 20 randomized trials found quercetin slightly reduced systolic blood pressure and fasting blood glucose, but did not significantly improve triglycerides, HDL cholesterol, waist circumference, or diastolic blood pressure. The effect size was small, so this is not a substitute for diabetes or blood-pressure treatment.

It may also have some relevance for rheumatoid arthritis symptoms and PCOS-related metabolic or hormonal markers, but the evidence is still limited. Memorial Sloan Kettering notes one study in women with rheumatoid arthritis found improved symptoms and disease activity, while a PCOS review found only three human studies, generally using 1000 mg for six weeks, with no serious adverse events reported but limited certainty.

For allergies, quercetin is often promoted because it can inhibit histamine-related inflammatory responses in lab studies. However, clinical trials for treating allergies and inflammation have not been conducted, so claims should be cautious. For cancer, there is substantial lab evidence, but human clinical evidence is mixed and insufficient; it should not be presented as a cancer treatment or proven cancer-prevention supplement.

Downsides/cautions: quercetin supplements may interact with medicines, including immune-suppressing drugs, pravastatin, fexofenadine, blood-pressure medicines, and drugs metabolized through CYP3A4 or CYP2C19 pathways. Reported side effects are usually not severe, but can include digestive upset, reflux, constipation, diarrhea, flatulence, and sleep problems.

Sulforaphane



Sulforaphane is formed from glucoraphanin in cruciferous vegetables, especially broccoli sprouts, when they are chopped, chewed, or otherwise activated by the enzyme myrosinase. It is best known for activating Nrf2 and phase-2 detoxification pathways, which are involved in antioxidant defence, inflammation regulation, and handling certain toxins.

Possible upsides: sulforaphane has more interesting human evidence than many plant compounds, but most studies are still small or early-stage. In type 2 diabetes, a clinical study found concentrated broccoli sprout extract reduced fasting blood glucose and HbA1c in obese patients with dysregulated type 2 diabetes. That is promising, but it does not replace metformin, insulin, diet, or medical care.

For autism spectrum disorder symptoms - not a disease - a 2025 systematic review and meta-analysis of six randomized controlled trials found sulforaphane was associated with improvements in some symptom scores, including total symptoms, aberrant behaviour, hyperactivity, social interaction, and communication, with adverse events similar to control groups. The authors still advised caution because outcomes depend on assessment tools, assessors, and treatment duration.

For *H. pylori*/gastritis, a small human study found 70 g/day of broccoli sprouts for eight weeks reduced markers of *H. pylori* colonisation and gastric inflammation, but values returned toward baseline after stopping. This suggests possible supportive value, not eradication or a replacement for antibiotic treatment when *H. pylori* treatment is medically needed.

For cancer prevention, the evidence is biologically plausible but not definitive. In recurrent prostate cancer, one phase II study found sulforaphane-rich extract did not achieve the main goal of large PSA declines in most patients, although PSA doubling time lengthened and treatment was reported as safe with no grade 3 adverse events. This is promising but unproven, not a cancer cure.

Sulforaphane has also been studied for detoxification of pollutants. A 12-week clinical trial in China found a broccoli sprout beverage increased urinary excretion of benzene and acrolein, suggesting it may support detoxification pathways after exposure to some air pollutants.

Downsides/cautions: broccoli sprouts and sulforaphane are generally well tolerated, but digestive problems, nausea, and vomiting have been reported in some studies. Broccoli sprout intake may also affect drug-metabolising enzymes, so concentrated supplements should be used cautiously with medication. Raw sprouts carry a real food-safety risk; pregnant people, older adults and immunocompromised people should be especially cautious.

Curcumin



Found in: curcumin is the main active curcuminoid in turmeric, the yellow-orange root or spice used in curries, turmeric tea, golden milk, spice blends, and some food colourings. Curry powder usually contains turmeric, but the curcumin amount can be variable and often fairly low.

Possible upsides: curcumin is mainly studied for anti-inflammatory and antioxidant effects. The most practical evidence is for osteoarthritis, especially knee pain and stiffness, where several reviews suggest potential benefit, though higher-quality evidence is still needed. It may also help improve some markers in non-alcoholic fatty liver disease or fatty liver, but the evidence is not yet consistent enough to be definitive.

There is also early evidence that turmeric or curcumin preparations may help oral mucositis - mouth inflammation linked with cancer treatment - but this should be treated as supportive care, not a treatment for cancer itself.

Diseases/conditions it may help support: most plausible are osteoarthritis symptoms, general inflammatory burden, and possibly some fatty-liver markers. More tentative areas include inflammatory bowel conditions, depression-related inflammation, PMS, metabolic syndrome, and cancer-treatment side effects. It is not proven to cure arthritis, liver disease, cancer, depression, or inflammatory bowel disease.

Downsides/cautions: turmeric in food is generally considered safe for most people, but concentrated curcumin supplements are different. Side effects can include nausea, reflux, stomach upset, diarrhoea, constipation, rash, or itching. Higher-bioavailability formulas - especially those designed to improve absorption, sometimes with black pepper or piperine - have been linked to rare but sometimes serious liver injury. Warning signs include fatigue, nausea, poor appetite, dark urine, jaundice, abdominal pain, or unusual weakness.

Curcumin supplements can also interact with medications, including blood thinners, some painkillers, chemotherapy drugs, and tacrolimus. Memorial Sloan Kettering specifically advises caution with chemotherapy and notes potential kidney-stone concerns in people with a history of stones.

EGCG



Found in: EGCG is found mainly in green tea, including matcha, because matcha uses powdered whole green tea leaf. It is also present in white tea and, usually in lower or more variable amounts, in oolong and black tea because processing changes the catechin profile. Green tea and matcha are the main food and drink sources to focus on.

Possible upsides: EGCG is studied for antioxidant, anti-inflammatory, cardiometabolic, and cell-signalling effects. Human evidence is strongest around cardiovascular and metabolic markers, not cures. Green tea supplementation has been associated with improvements in lipid and glycaemic profiles, and meta-analyses suggest green tea catechins may modestly improve blood pressure, total cholesterol, and LDL cholesterol.

Diseases/conditions it may help support: most plausible are cholesterol balance, mild blood-pressure support, blood-sugar or metabolic markers, and general antioxidant support. More tentative areas include weight management, cognitive ageing, cancer prevention, and inflammatory conditions. For cancer, EGCG is interesting in lab and early human research, but it should not be presented as a cancer treatment or cure.

Downsides/cautions: brewed green tea is generally safe for most people, though too much can cause caffeine-related sleep disruption or headaches. Concentrated green tea extract or EGCG supplements are more concerning. High doses have been linked with nausea, abdominal pain, raised liver enzymes, and rare cases of liver injury. LiverTox notes that more than 100 cases of clinically apparent liver injury have been attributed to green tea extract, although the risk is low compared with widespread use.

EGCG and green tea extracts can also interact with medications, including anticoagulants or antiplatelets, bortezomib, tamoxifen, verapamil, irinotecan, CYP3A4-metabolised drugs, nadolol, and some statins. This matters especially for people on cancer therapy, heart medicines, blood thinners, or liver-affecting medicines.

Simple food-first summary

Curcumin, from turmeric, and EGCG, from green tea and matcha, may support antioxidant and anti-inflammatory pathways. Curcumin has the strongest practical evidence for helping osteoarthritis symptoms, while EGCG/green tea has the strongest evidence for modest support of cholesterol, blood pressure, and metabolic markers.

Practical take

For most people, the safest approach is food first: onions, apples, berries, tea, broccoli, cabbage, kale, rocket/arugula, cauliflower, and lightly cooked or safely prepared broccoli sprouts. Supplements are where the interaction and dosing concerns become more important.

The most defensible wording is that these plant compounds may support antioxidant, anti-inflammatory, metabolic, and cellular-protection pathways, and may help with certain symptoms or health markers. They are not proven cures and should not replace medical treatment.

Main sources listed on the Supportive Food page: Linus Pauling Institute, Oregon State University, Therapeutic Goods Administration (TGA), NIH Office of Dietary Supplements, Memorial Sloan Kettering, LiverTox and related clinical research summaries.