

White and Whole Grain Wheat Flour

White Flour

White flour is made by removing the bran and germ from the wheat kernel, leaving only the starchy endosperm. It's typically bleached and enriched with select nutrients lost during processing. It stores better than whole grain flour.

Nutrition and Health:

- Refining removes dietary fiber, magnesium, vitamin E, and phytochemicals naturally present in whole grains.
- Lacks the bran and germ, therefore lower in micronutrients and bioactive compounds.
- Higher glycemic index, causing more rapid increases in blood glucose and insulin.
- Diets high in refined grains are associated with an increased risk of type 2 diabetes and cardiovascular disease (Gaesser, 2019).
- Enrichment helps prevent formerly common nutrient deficiencies (especially folate-related neural tube defects) but does not restore fiber or phytochemicals.

Nutrition Tips:

- Choose whole grain or partially whole grain flours when possible.
- Limit foods made primarily with white flour (refined breads, pastries, etc.) in favor of higher-fiber, minimally processed grains.
- Combine white flour with whole grain or legume flours to improve nutrient profile and lower GI

Whole Grain Flour

Whole wheat flour is made by grinding the entire wheat kernel: the bran, germ, and endosperm. This preserves the grain's fiber, vitamins, minerals, and phytochemicals that are lost during refining.

Nutrition and Health:

- High fiber content slows glucose absorption and supports satiety, digestive health, and lower postprandial insulin responses.
- Contains magnesium, zinc, and phenolic compounds that may improve vascular function and reduce inflammation (Jomova et al., 2025).
- Lower glycemic index compared to refined white flour.
- Regular intake of whole grains is associated with:
 - Lower risk of type 2 diabetes (Ying et al., 2024)
 - May improve lipid profile (lower LDL and total cholesterol) (Hollænder et al., 2015)

Nutrition Tips:

- Choose **whole wheat** or other **whole grain flours** most of the time.
- Look for "**100% whole wheat**" or "**whole grain**" on ingredient lists to know they're whole grains for sure.
- Combine with white flour when baking for texture.

Low-fat Greek Yogurt

Greek yogurt is made by straining regular yogurt to remove much of the whey, resulting in a thicker texture and higher protein concentration. Low-fat varieties are made from partially skimmed milk, reducing total fat while maintaining a rich texture and tangy flavor.

Nutrition & Health:

- Excellent source of all essential amino acids (known as a complete protein)
- Contains calcium, potassium, and phosphorus, supporting bone health and electrolyte balance.
- Lower in lactose than regular yogurt.
- Probiotic cultures may enhance gut microbiota composition, support immune function, and improve digestive health (Pannerchelvan et al., 2024).
- Clinical and cohort studies associate regular yogurt consumption with:
 - Lower BMI and obesity risk (Wang et al., 2021)
 - Reduced risk of type 2 diabetes and hypertension (Pannerchelvan et al., 2024)

Nutrition Tips:

- Choose plain, unsweetened low-fat Greek yogurt to limit added sugars.
- Pair with fruit, nuts, or whole grains for balanced meals or snacks.
- Can substitute for sour cream, mayonnaise, or cream in cooking to reduce total fat.

Cornmeal

Cornmeal is made by grinding dried corn kernels. Cornmeal is more coarse than corn flour. It may be whole grain (contains germ, bran, and endosperm) or refined, where the germ and bran are removed for longer shelf life and a finer texture. It is used in cornbread, polenta, tortillas, and other staple foods.

Nutrition & Health:

- Whole grain cornmeal retains more fiber, vitamin E, magnesium, and carotenoids compared to refined types.
- Good source of fiber, supporting better glycemic control than some refined grains.
- Enrichment replaces certain B vitamins and iron lost during milling but does not restore fiber or phytochemicals.
- Less refined, whole-grain corn products are associated with lower risks of chronic disease (Mohr & Whisner, 2025)

Nutrition Tips:

- Store in a cool, dry place; refrigerate or freeze whole-grain cornmeal to prevent rancidity.
- Use in porridge, cornbread, polenta, or as a coating for baked foods.

Yeast

Yeast are single-celled fungi used in baking and fermentation. In baking, yeast metabolizes sugars to produce carbon dioxide and ethanol, causing dough to rise and contributing to flavor and aroma development. Nutritional and inactive yeast forms are also consumed for their nutrient content.

Types of Yeast:

- Active dry yeast / instant yeast: used for leavening in breads and baked goods.
- Brewer's yeast (inactive): byproduct of brewing; rich in B vitamins and minerals.
- Nutritional yeast: heat-inactivated; fortified with vitamin B12 and often used as a plant-based protein and flavoring.

Nutrition & Health:

- When used as an active baking ingredient, its main role is fermentation, converting carbohydrates to CO₂ for dough leavening. Nutrient contribution from this form is minimal.
- Nutritional yeast is naturally rich in B vitamins; fortified forms are an important non-animal source of vitamin B12 for vegetarian and vegan diets (Gorman, 2025).
- Use active yeast for bread making and fermentation.
- Choose nutritional yeast as a flavor enhancer (cheesy, nutty taste) and nutrient booster in plant-based meals.

Mozzarella

Mozzarella is a fresh, un-ripened cheese traditionally made from cow's milk. It is created by acidification and stretching, giving it its soft, elastic texture. Part-skim mozzarella provides lower fat and high protein content.

Nutrition & Health:

- Provides high-quality complete protein, calcium and phosphorus, supporting bone and muscle health.
- Rich in vitamin B12, zinc, and selenium, nutrients often low in plant-based diets.
- Moderate sodium and saturated fat content compared to other cheeses
- Contains bioactive peptides that may influence blood pressure regulation and immune modulation (Rangel et al., 2023).
- Regular consumption of moderate amounts of cheese has been associated with neutral or reduced CVD risk in observational studies (Taormina et al., 2024).
- Cheese consumption has been linked to neutral or reduced risk of type-2 diabetes (Zhang et al., 2023).

Nutrition Tips:

- Choose part-skim mozzarella for lower saturated fat and calories.
- Incorporate into balanced meals with vegetables, whole grains, and protein.
- Keep portion sizes moderate: 1.5 oz (42 g) = about 1 slice or 1 cup shredded.

Garlic

Garlic is the bulb of a plant in the Allium family, related to onions, leeks, and shallots. It is valued for its strong flavor and bioactive sulfur compounds, which have been studied for potential cardiovascular and immune benefits.

Nutrition & Health:

- Sulfur-containing phytochemicals (such as ajoene, alliin, and allicin) are associated with antioxidant, anti-inflammatory, and hypertensive properties (Sleiman et al., 2024).
- *Note: while culinary portions are small and nutrient contributions are modest, phytochemical intake may be meaningful.*
- When chopped or crushed, the phytochemical alliin is converted into allicin, which is associated with lowering total and LDL cholesterol while increasing HDL (Sleiman et al., 2024) .
- Garlic also contains some carbohydrates, amino acids, fatty acids, minerals, and some dietary fiber (El-Saadony et al., 2024).

Nutrition Tips:

- Use fresh, crushed, or chopped garlic to maximize bioactive allicin content.
- Add near the end of cooking to preserve potential health protective characteristics.

Basil

Basil is an aromatic herb from the mint family, with more than 160 species found in cuisines around the world. Fresh leaves provide flavor and aroma from volatile essential oils rich in phenolic compounds with antioxidant and anti-inflammatory properties.

Nutrition & Health:

- Contains polyphenols (such as eugenol, linalool, and rosmarinic acid) with potential antioxidant, antimicrobial, and anti-inflammatory activities (Nadeem et al., 2022).
- May reduce oxidative stress and support vascular function, **however evidence is limited, and research in human subjects is needed.**
- Dried basil has lower vitamin content but retains many phenolic antioxidants.
- *Note: while culinary portions are small and nutrient contributions are modest, phytochemical intake may be meaningful. More research is needed to understand potential benefits of basil to human health*

Nutrition Tips:

- Use fresh basil in salads, pesto, sauces, and cooked dishes added after heat exposure to preserve potentially health promoting properties.
- Store fresh basil unrefrigerated in water or lightly wrapped to prevent chilling injury.

Tomatoes

Tomatoes are widely consumed in fresh, cooked, and processed forms (sauce, paste, juice). They are rich in vitamins, minerals, and bioactive compounds including carotenoids, which contribute to their red color and health-promoting properties.

Nutrition & Health:

- Lycopene, a carotenoid, is an antioxidant associated with reduced oxidative stress, cardiovascular protection, and various anti-cancer properties (Collins et al., 2022).
- Lycopene in tomatoes is more readily absorbed when cooked over heat in olive oil.
- Rich in potassium and fiber, tomatoes may support healthy blood pressure and gut health.
- Regular tomato consumption is associated with (Collins et al., 2022):
 - Lower **risk of heart disease**
 - Reduced markers of **oxidative stress and inflammation**
 - Possible **reduced risk of certain cancers**, particularly prostate cancer, linked to lycopene intake.
- Phytochemicals: lycopene, β -carotene, lutein, flavonoids, phenolic acids (ferulic acid, among many)

Nutrition Tips:

- Combine with healthy fats (olive oil, avocado, nuts) to enhance carotenoid absorption.
- Use in salads, sauces, soups, and stews to add flavor and increase meal nutrient density.
- Choose ripe, firm, deep red tomatoes for higher phytochemical content.

Broccoli

Broccoli is a nutrient-dense vegetable belonging to the cruciferous family. Both the florets and stalks are edible and contain high levels of vitamins, minerals, and bioactive compounds.

Nutrition & Health:

- Broccoli contains phytochemicals and antioxidants (like sulforaphane (an isothiocyanate), glucoraphanin, and lutein) with anti-inflammatory and anticancer properties that may prevent or slow down the development of some chronic diseases (Syed et al., 2023).
 - Sulforaphane, extensively studied for its ant-cancer properties, has been found to inhibit the growth of various cancers.
- Regular broccoli consumption is associated with lower all-cause mortality risk (Liu et al., 2024).
- Steaming preserves glucosinolates better than boiling; microwaving and stir-frying for short durations also retain nutrients.

Nutrition Tips:

- Include both florets and stems for maximum fiber, nutrient intake, and food waste reduction.
- Pair with healthy fats (olive oil, nuts) to enhance absorption of fat-soluble carotenoids.
- Can be added to salads, soups, stir-fries, casseroles, vegetable roasts, and smoothies.

Brussel Sprouts

Brussels sprouts are small, leafy green buds in the cruciferous family. They are nutrient-dense and contain glucosinolates, vitamins, minerals, and antioxidants.

Nutrition & Health:

- Cruciferous vegetables are rich in glucosinolates phytochemicals, which convert to bioactive isothiocyanates when chewed or lightly cooked, that have potential anticancer and anti-inflammatory properties (Ağagündüz et al., 2022).
- Brussel sprouts are high in vitamin C, K, folate, and fiber, contributing to antioxidant defense, bone health, and gut health.
- Contains potassium, supporting healthy blood pressure and cardiovascular health
- Studies associate regular intake of cruciferous vegetables with reduced risk of certain cancers, especially colorectal, lung, and prostate (Ağagündüz et al., 2022).
- Steaming or roasting preserves glucosinolates better than boiling, which can leach nutrients into water.

Nutrition Tips:

- Cook lightly (steam, roast, sauté) to maximize nutrient and phytochemical retention
- Pair with **healthy fats** (olive oil, nuts) to improve absorption of carotenoids
- Can be eaten raw in shredded salads or slaws for added crunch and nutrient retention.

Spinach

Spinach is a nutrient-dense leafy green widely consumed raw in salads or cooked in a variety of dishes. It is rich in vitamins, minerals, fiber, and bioactive compounds that contribute to overall health.

Nutrition & Health:

- Very high in vitamin K, contributing to bone health and blood clotting.
- Contains polyphenols and flavonoids (like lutein, zeaxanthin, and quercetin) with antioxidant, anticancer, and anti-inflammatory properties (Roberts & Moreau, 2016).
- High intakes of raw spinach (>52 servings / year) have been associated with 45% decreased risk of breast cancer and an 11% reduction in colon cancer (Roberts & Moreau, 2016).
- Good source of potassium, magnesium, and iron, healthy blood pressure, energy metabolism, and red blood cell production.
- Oxalates in raw spinach can reduce calcium and iron absorption.

Nutrition Tips:

- Consume both **raw and lightly cooked** for a balance of vitamins and carotenoids.
- Pair with healthy fats to enhance absorption of fat-soluble nutrients like vitamin A and lutein.
- Add to **salads, smoothies, soups, stir-fries, omelets, and casseroles.**

Sweet Potato

Sweet potatoes are nutrient-dense tubers with naturally sweet flavor, commonly consumed baked, roasted, boiled, or mashed. They are rich in beta-carotene, fiber, and minerals, making them a highly nutritious carbohydrate source.

Nutrition & Health:

- Rich in beta-carotene, a precursor to vitamin A, supporting vision, immune function, and skin health.
- Good source of fiber, promoting gut health, satiety, and blood sugar regulation.
- Contains potassium and magnesium, supporting blood pressure regulation and cardiovascular health.
- Sweet potatoes contain phenolic acids and flavonoids containing anti-inflammatory and antioxidant compounds that scavenge free radicals and protect health (Alam, 2021).
- Studies have shown they contain anti-diabetic properties that can enhance insulin sensitivity, but more studies are needed to understand this potential (Alam, 2021).

Nutrition Tips:

- Baking, steaming, or boiling helps lower anti-nutrients that can affect the bioavailability of some nutrients.
- Pair with healthy fats (olive oil, nuts, dairy) to enhance carotenoid absorption.
- Include color variety (orange, purple, white) to maximize phytochemical diversity.
- Can be used in fries, soups, stews, and casseroles for nutrient-dense meals.

Chickpeas/ Garbanzo Beans

Chickpeas, also known as garbanzo beans, are nutrient-dense legumes commonly used in soups, stews, salads, hummus, and curries. They are rich in protein, fiber, vitamins, minerals, and bioactive compounds that support health.

Nutrition & Health:

- High in protein, making chickpeas excellent plant-based source
- Soluble and insoluble fiber support satiety, gut microbiota health, and glycemic control.
- Rich source of iron, magnesium, potassium, and zinc, supporting red blood cell production, energy metabolism, and heart health. Good source of folate.
- Contain flavonoids and polyphenols, which may improve blood glucose regulation and blood lipid profiles (Begum et al., 2023).
- Regular consumption of legumes is associated with (Viguiliouk et al., 2017):
 - Lower risk of type 2 diabetes and cardiovascular disease
 - Improved weight management and satiety
 - Better blood lipid control

Nutrition Tips:

- Include chickpeas boiled, roasted, or pureed (e.g., hummus)
- Pair with whole grains (rice, quinoa) to provide a complete amino acid profile
- Soaking and cooking dried chickpeas reduces antinutrients (phytates, lectins) and improves digestibility. Canned beans are pre-soaked

Quinoa

Quinoa is a nutrient-dense, gluten-free seed consumed like a grain. It is a complete protein (provides all essential amino acids), fiber, vitamins, minerals, and phytochemicals. It's commonly used in salads, bowls, soups, and as a rice substitute.

Nutrition & Health:

- Contains all essential amino acids, making it a complete plant protein.
- Rich in fiber, supporting satiety, gut health, and glycemic control.
- Rich in magnesium, phosphorus, potassium, and iron, supporting bone health, energy metabolism, and heart health.
- Flavonoids and phenolic compounds provide antioxidant and anti-inflammatory effects (Pathan & Siddiqui, 2022).
- Regularly consuming quinoa is significantly associated with (Sanjeevi et al., 2025):
 - Lower cholesterol and total triglyceride profiles
 - Lower BMI and waist circumference

Nutrition Tips:

- Rinse quinoa before cooking to remove natural saponins, which can be bitter.
- Use as a side dish, salad base, or grain bowl.
- Pair with vegetables, legumes, and lean proteins for nutrient-dense meals.
- Naturally gluten-free, suitable for individuals with celiac disease or gluten sensitivity.

Salt (NaCl)

Table salt is a mineral composed of sodium and chloride, widely used to enhance flavor and preserve foods. While sodium is essential for bodily functions, excessive intake is linked to health risks.

Nutrition & Health:

- Sodium is essential for fluid balance, nerve transmission, and muscle contraction.
- Excess sodium intake is strongly associated with (Bigiani, 2020):
 - Hypertension
 - Increased risk of cardiovascular disease and stroke
- Most sodium in the diet comes from processed and restaurant foods, not the salt shaker (*Sodium in Your Diet* | FDA, n.d.).
- Iodized salt is a significant globally accepted public health measure used to prevent iodine deficiency, which can cause goiter, thyroid dysfunction, and impaired development (Zimmermann & Andersson, 2021).

Nutrition Tips:

- Limit sodium intake to <2,300 mg/day (~1 tsp salt) per dietary guidelines.
- Use herbs, spices, citrus, and vinegar to flavor foods instead of excess salt.
- Choose minimally processed foods to naturally reduce sodium intake.
- For individuals with hypertension or kidney disease, stricter sodium restriction may be advised.

Chili powder

Chili powder is a blend of ground dried chili peppers and other spices (e.g., cumin, garlic powder, oregano). It adds flavor, color, and heat to dishes and contains bioactive compounds with potential health benefits.

Nutrition & Health Notes:

- Capsaicin, the compound that gives chili its heat, has been studied in large concentrated doses for its potential beneficial effects on metabolic syndrome. Results have been promising, however more human studies are needed (Panchal et al., 2018).
- Rich in carotenoids and flavonoids, which have antioxidant properties, however modestly contributed from culinary seasoning (Panchal et al., 2018).
- Modest amounts of iron, vitamin A, and vitamin C.
- Generally considered safe; may cause **irritation or heartburn** in sensitive individuals.

Nutrition Tips:

- Use to enhance flavor in soups, stews, sauces, and marinades.
- Commonly found across the globe in Mediterranean, Latin American, and Asian cuisine.

Olive Oil

Olive oil is an oil extracted from olives rich in monounsaturated fats. **Extra virgin olive oil (EVOO)** is obtained through **cold pressing**, preserving flavor, antioxidants, and bioactive compounds. It is a staple of **Mediterranean diets** and widely studied for cardiovascular and metabolic benefits.

Nutrition & Health Notes:

- Extra virgin olive oil (pressed olives) maintains bioactive compounds if used raw or at moderate cooking temperatures (<180°C / 356°F). Refined olive oil contains fewer phenolic compounds and antioxidants that may benefit health (Foscolou et al., 2018).
- Regular consumption is associated with reduced risk of (Foscolou et al., 2018):
 - Cardiovascular disease
 - Type 2 diabetes
 - Metabolic syndrome
 - Several cancers
- **Phytochemicals:** polyphenols (hydroxytyrosol, oleocanthal), tocopherols, squalene

Dietary Guidance:

- Use EVOO as a salad dressing, drizzle, or for low-to-medium heat cooking.
- Pair with vegetables, grains, legumes, and proteins to enhance flavor and nutrient absorption.
- Store in a cool, dark place to preserve polyphenols and prevent rancidity.

Low-fat Cottage Cheese

Cottage cheese is a soft cheese made from coagulated protein-rich curds of skim milk. Full-fat options include added cream for taste and texture. Commonly used in salads, snacks, and cooking.

Nutrition & Health (Pozzobon & Pozzobon, 2019):

- Highly bioavailable source of protein, supporting muscle health, satiety, and has been shown to lower blood glucose levels after meals by increasing insulin secretion.
- Cottage cheese consumption has been associated with reduced risk of CVD, hypertension, and cancer in some studies.
- Probiotic food
- Lower in saturated fat than hard cheeses.
- Provides phosphorus, and B vitamins, supporting bone health and energy metabolism.
- Low quantity of bioavailable calcium compared to other dairy products per 100g.
- Sodium content may be a consideration for individuals with hypertension, but rinsing or choosing lower-sodium versions can reduce intake.

Nutrition Tips:

- Use in snacks, salads, and smoothies.
- Pair with fruit, vegetables, or whole grains for a nutrient-dense, balanced snack.
- Opt for low-fat or fat-free versions for lower saturated fat intake.

Cilantro

Cilantro is an aromatic herb widely used in Latin American, Asian, and Middle Eastern cuisines. Its fresh leaves provide flavor, antioxidants, and trace nutrients.

Nutrition & Health:

- Rich in antioxidant flavonoids and phenolic compounds, which may improve oxidative stress and inflammation (Imankulova et al., 2020).
- Bioactive compounds in cilantro may have antimicrobial and detoxification-supporting properties, although effects from typical culinary use are modest (Imankulova et al., 2020).
- Contains vitamin A, vitamin C, folate, calcium, and iron, potentially contributing to modest immune, bone, and red blood cell health (Ciju, 2019).
- *Note: while culinary portions are small and nutrient contributions are modest, phytochemical intake may be meaningful. More research is needed to understand potential benefits of basil to human health*

Nutrition Tips:

- Use fresh leaves **at the end of cooking or in raw** dishes to preserve nutrients.
- Add to salads, salsas, sauces, soups, and garnishes.
- Refrigerate in water or wrapped in a damp towel to prolong freshness.

Radish

Radishes are crisp, peppery cruciferous root vegetables commonly eaten raw in salads, slaws, and garnishes. They are nutrient-dense and contain vitamins, minerals, fiber, and bioactive compounds.

Nutrition & Health:

- Contain glucosinolates, compounds which may support detoxification pathways and have anti-inflammatory and antioxidant effects (Gamba et al., 2021).
- Good source of calcium, magnesium, potassium, vitamin C, and folate.
- Fiber supports gut health and satiety.
- Studies have suggested that bioactive compounds in radishes may exert antidiabetic properties and may be beneficial in diabetic conditions (Banihani, 2017).

Nutrition Tips:

- Best eaten raw to preserve nutrients
- Can be sliced into salads, pickled, roasted, or used as a garnish.
- Pair with healthy fats (olive oil, avocado, nuts and seeds) to enhance absorption of any fat-soluble nutrients.
- Include as part of a variety of cruciferous vegetables for maximum phytochemical diversity.

Avocado (Hass)

Avocados are nutrient-dense fruits rich in monounsaturated fats, fiber, and phytonutrients. They are commonly eaten raw in salads, spreads, smoothies, and bowls and are valued for both flavor, texture, and health benefits.

Nutrition & Health:

- Good source of fiber, contributing to satiety, gut health, and glycemic control.
- Good source of folate, vitamin C, and vitamin K, supporting blood pressure regulation and blood clotting, cellular function, and immune health.
- Contains lutein and zeaxanthin, carotenoids that support eye health.
- Some studies have found that regular avocado consumption may be associated with reduced cardiovascular risk, improved cholesterol (reduced LDL), and enhanced diet quality when replacing less healthy fats (Dreher et al., 2021).
- Good source of highly bioavailable carotenoid lutein, which may help protect against LDL oxidation associated with atherosclerosis (Dreher et al., 2021).

Nutrition Tips:

- Use raw in salads, spreads, smoothies, or sandwiches to preserve nutrients.
- Pair with other fruits, vegetables, or whole grains for balanced meals.