

ANTIOXIDANTS

Antioxidants help fight the free radicals which can damage our mitochondria (the powerhouse of our cells that keep us young and high-functioning). When we pay particular attention to including antioxidants in our diet, we can help remove and reverse the damage of free radicals and boost our mitochondrial health. This means our brains work optimally, our energy is high, we have the ability to decrease inflammation, and our moods are good.

The body makes some of the antioxidants that it uses to neutralize free radicals. These antioxidants are called endogenous antioxidants. However, the body relies on external (exogenous) sources, primarily in the diet, to obtain the rest of the antioxidants it needs.

Oxygen Radical Absorbance Capacity (ORAC) is the unit of measurement for antioxidant capacity. A food's ORAC number shows how much antioxidant capability it has within our body. This is very helpful, as opposed to trying to guess how much benefit it will have in the body.

FOODS HIGHEST IN ORAC

TURMERIC contains anti-inflammatory properties, and because of its high ORAC rating, it increases the antioxidant capacity within the body.

CINNAMON (CEYLON) is a potent, yet sweeter spice which is different than traditional Cassia cinnamon. Ceylon has many medicinal benefits from anti-clotting to antifungal; however, our favorite is its effect on blood sugar control.

GROUND CLOVES are packed with nutrition; they have antifungal and antibacterial properties and are rich in omega-3 fatty acids as well as the mineral manganese.

DRIED OREGANO is from the mint family and high in antioxidants but also serves as a natural antiviral and antimicrobial agent.

ACAI is a delicious, super-fruit berry from the Brazilian Amazon rainforest. Acai is very high on the ORAC scale and contains fatty acids such as oleic acid and linoleic acid. Acai also contains healthy dietary fiber and minerals such as copper, iron, and magnesium.

Direct Antioxidants are vitamins and minerals that we directly consume from whole foods. While they are inferior to indirect antioxidants in long-lasting efficacy (they extinguish a free radical, and then they are "used up"), they are essential and have many healing benefits to the body.

SOURCES OF DIRECT ANTIOXIDANTS

VITAMIN C sources include persimmons, oranges, red bell peppers, acai, and kiwi.

VITAMIN E sources include sunflower seeds and avocados.

SELENIUM (can serve as both a direct and indirect antioxidant because it is a precursor to glutathione, an indirect antioxidant. Sources are: brazil nuts, tuna, halibut, grass-fed beef, and sardines. Eating just 2-5 organic brazil nuts/daily exceeds the recommended daily allowance.

BETA CAROTENE sources include pumpkin squash and orange root vegetables such as carrots.

ANTHOCYANINS are blue and purple antioxidants found in blueberries and blackberries.

Indirect antioxidants stimulate the body to create its own store of antioxidant production as well as activate and recycle detoxification enzymes (such as the most common antioxidant superstar, glutathione). Indirect antioxidants help your body continue to kill free radicals for hours after consumption and they go after heavy metals in the body.

SOURCES OF INDIRECT ANTIOXIDANTS

SULFORAPHANE is found in cruciferous vegetables such as broccoli, broccoli sprouts, and cabbage.

RESVERATROL is rich in phytonutrients and helps reduce inflammation within the body and also supports our brain, cardiovascular health and mitochondria health. Resveratrol is found naturally in cacao, organic grapes, and organic blueberries.

TURMERIC combined with black pepper improves the bioavailability of the active antioxidant component in turmeric called curcumin. Supplement: Curcum-Evail.

GLUTATHIONE is the master antioxidant in the body. Exercise boosts glutathione, as do sulfur-rich foods. Taking Liposomal Glutathione or the precursor, N-Acetylcysteine (NAC) is a great way to support cellular function and increase the antioxidant capacity within the body.

The way we prepare our foods can also enhance the antioxidant content, for example, steaming (instead of broiling or frying) can increase the antioxidant value by two-fold.

Purchasing local and organic produce is the best way to ensure you are receiving the highest quality of antioxidants, while also supporting local farmers. Often when purchasing from large grocery stores, fruits and vegetables travel very far and are exposed to high heat, which can significantly reduce the antioxidant and nutritional value.

Oxidative stress is the reason we age, which is an entirely healthy and natural process. We can age so much *more* gracefully by including antioxidant-rich foods and supplements into our diet.

- Written by Kathryn Holly Mott, RD, ONC