

Press Center

THE SCIENCE OF FREE RADICALS AND OXIDATIVE STRESS

The science of free radicals and oxidative stress began in the late 1960s with a small group of scientists, including Duke University graduate student, Joe McCord.

This group first discovered that free radicals, formerly only thought to exist outside the human body, actually exist in the human body and in biological organisms. This new science became known as Free Radical Biology and was the precursor to the science that brought public awareness of antioxidants and free radicals.

A multi-billion dollar industry was born with the discovery of free radicals and the antioxidants said to eliminate them.

Oxidative Stress

Oxidative stress is caused by free radicals in the body that accumulate significantly as age increases. Free radicals are the molecules that, outside the human body, cause rust in metals or browning in sliced apples. In the body, free radicals hurt cells and are a significant factor in aging. Free radical damage in the body is called oxidative stress.

Scientific research has validated oxidative stress—damage to the body's cells by free radicals—as the root cause, at the cellular level, of aging. In fact, studies show that metabolic wear and tear caused by free radicals in cells accelerates aging, the problems associated with aging and contributes to more than 100 health conditions. More than 40,000 published articles on oxidative stress underscore the magnitude of the problem.

Breakthrough.

The human body benefits nutritionally from many components found in foods that also happen to be rich in direct antioxidants—such as oranges, dark chocolate, and red wine. It has been thought that consuming these foods and other direct antioxidant supplements, such as vitamins C, E, and A, would reduce oxidative stress. However, current scientific studies show that direct antioxidants don't effectively fight free radicals in the human body. Experts in the field of oxidative stress have also discovered the most effective way to fight free radicals is to trigger the body to produce more of its own free radical-fighting enzymes.

With this discovery comes the patented, clinically-proven product Protandim, that causes the body to produce the enzymes that fight free radicals. Protandim is the first Nrf2 activator on the market—and it's the only product clinically-proven to reduce oxidative stress by 40%!

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Protandim contains milk thistle, to support liver health; turmeric, that provides a healthy response to inflammation; green tea, that increases metabolism and burns fat; and ashwaganda, used for centuries in India and traditional Eastern medicine for numerous applications. While each of Protandim's ingredients possesses impressive healthful properties, together they provide a synergistic increase in the production of the body's antioxidant enzymes.

Protandim is founded in breakthrough science, science backed by clinical studies, science that has been peer-reviewed, scrutinized by regulatory agencies, and completely validated.