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# LIVING WATERS MEDICAL SPA AND WELLNESS CENTER



## Age Reversal with Nrf2

### **Nrf2 Activation Reverses Aging and Prevents Dis- ease**

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Anti-aging and wellness physicians' focus is on helping the body heal itself and function optimally at all ages. This is done by nutritional assessment, finding genetic weaknesses to address, determining individual toxicities, and checking hormone levels. Treatment includes replacing hormones to youthful levels, nutritional supplementation, and detoxification. These treatments are all aimed at reducing wear and tear on the body and reversing or slowing the aging process. Wear and tear on the body comes from cellular stress which is caused by free radical damage to the cells. Free radicals are generated by the mere act of living: eating, breathing, exercising, etc. Too many of them cause damage to our cells and subsequently our organs and systems fail or dysfunction. **Oxidative stress** reflects an imbalance between production of free radicals and the ability of the body to eliminate them.

### **What exactly is a free radical?**

A free radical is an unstable molecule (usually an unstable oxygen molecule) with a free electron. This free electron is looking for something to react with to gain an electron and become a stable molecule again. When it gains an electron it does damage to the molecule it stole the electron from. Free radicals are generated from the basic functions of living – eating, breathing, exercising, etc. These are by-products of breaking down our food and the chemicals and toxins we are exposed to. Our body is constantly producing them. Some of them serve a useful purpose as our white blood cells generate them to kill bacteria, viruses, and fungi. However, living in today's toxic environment we are all loaded with too many of

## Oxidative stress and resulting cellular damage and inflammation is the root of all aging and disease!

of them. The older we get, the more toxic our burden of free radicals gets and our bodies cannot keep up with the process of eliminating them to protect our cells.

### **What is an antioxidant?**

Merriam-Webster defines an antioxidant as: any of various substances (as beta-carotene, vitamin C, and vitamin E ) that inhibit oxidation or reactions promoted by oxygen and peroxides and that include many held to protect the living body from the deleterious effects of free radicals. Basically they are our free radical scavengers, the vacuum cleaners that gobble up our excess free radicals.

### **How does our body eliminate free radicals?**

Our body uses internally produced and externally consumed antioxidants to eliminate free radicals. We obtain our external antioxidants through our foods and supplements that contain antioxidants such as: Vitamin C, E, beta-carotene, etc. However, this is not the body's most efficient process for eliminating free radicals. The body generates its own internal free radical scavengers called catalase, super oxide dismutase (SOD), and glutathione through a pathway called Nrf2. The scientific name is nuclear factor erythroid-2-related factor 2. Nrf2 activates over 500 genes (DNA) in our body that then

make these super antioxidants that protect all of our cells from free radicals. This is an extremely powerful pathway. For instance, one molecule of Vitamin A can kill one free radical. The Nrf2 pathway, when activated, generates one million enzymes free radical scavengers/second!!! This pathway functions optimally when we are born until about age 20 when we stop growing. This is why children heal so much more rapidly and completely than adults do. After age 20 we begin to age; until then we just grow. This aging is a result of cumulative wear and tear on our bodies due to inadequate removal of free radicals. Due to this slowing down of our Nrf2 pathway and continued exposure to a toxic environment, poor nutrition, inadequate or too much exercise, and stress, our bodies accumulate free radicals and growing damage that they cause to our cells and organs. This oxidative stress is the major cause of aging and all diseases. **Oxidative stress and resulting cellular damage and inflammation is the root of all aging and disease!** This means: Alzheimer's Disease, Cancer, High Blood Pressure, Heart Disease, Autoimmune Diseases, and Diabetes all are started by inflammation and oxidative stress! These are the leading causes of death in our country.

## Don't take antioxi- dants: Make them!

So what do we do about this oxidative stress that is literally killing us one cell at a time? Traditionally, the answer has been to eat more vegetables and take antioxidants such as vitamin A, E, C, B's etc. However, recent experts have been calling this strategy into question. Sure, we need to eat more fruits and vegetables; however, unless they are organic, the nutrient content is drastically reduced and they contain pesticides which are just adding to the oxidative stress. In addition, we cannot consume enough to keep up with the onslaught of chemicals, pesticides, and heavy metals we are exposed to today. Some experts feel that by loading our bodies with high doses of antioxidant supplements that we are actually short-circuiting our own production of these crucial antioxidants and thus increasing our risk of diseases such as cancer. In other words, by taking too many antioxidants that we actually inhibit our body from activating this all important Nrf2 pathway.

Catalase, SOD, and glutathione are among the most powerful enzymes and proteins that are produced as a result of Nrf2 activation. They help clean up our body much like a vacuum cleaner. They gobble up the free radicals damaging our cells. Catalase deficiency is responsible at least in part for the

graying of our hair. This is because catalase neutralizes hydrogen peroxide which is a bleaching agent to our hair. Glutathione is a master antioxidant and detoxifier located and needed in every cell of the body. It has multiple roles in our body and literally affects every cell and organ in some fashion. It neutralizes oxygen free radicals, helps our other antioxidants such as C and E be utilized better, helps regulate Nitric Oxide, helps with protein synthesis and DNA synthesis and repair. The immune, pulmonary (lungs), nervous system, and gastrointestinal system are most dependent on glutathione. SOD is our most powerful free radical scavenger that inactivates unstable oxygen molecules. It is found both inside and outside the cells. It is critical to keep our cells functioning and we get very little from food. Supplements of SOD are easily inactivated by stomach acid and/or are digested into peptides so the net effect is just as if you ate a steak.

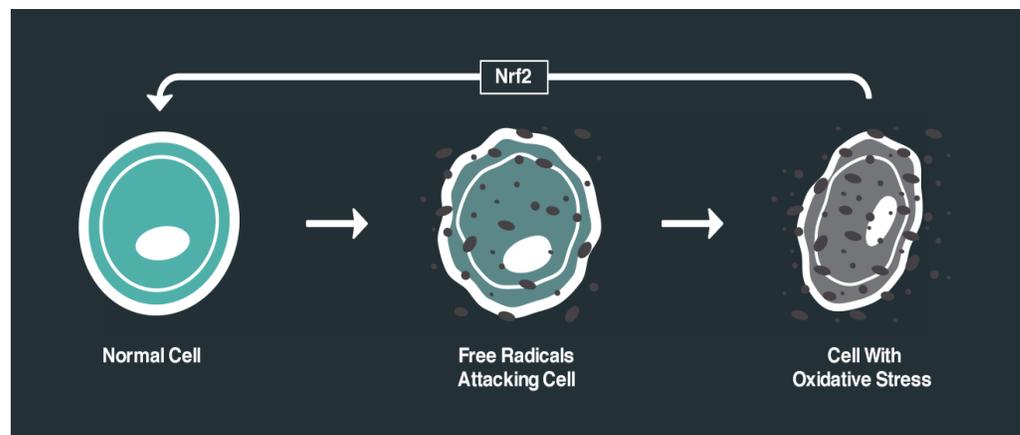
The ideal solution for preventing cellular damage from free radicals is to turn on our Nrf2 pathway so that we can generate SOD, catalase, and glutathione at the levels we did when we were young. Fortunately there is a product that has been scientifically proven and validated to

reduce oxidative stress 40% in just 30 days. This product is called, Protandim, and was formulated by Dr. Joe McCord, an award winning scientist. He is also called the “father of free radical biology.”

Protandim activates the Nrf2 genes that turn on our production of catalase, SOD, and glutathione for about 12 hours. The Nrf2 pathway generate these free radical scavengers that neutralize 1 million free radicals per second like the body did when it was young! Since all diseases have their roots in oxidative stress, activating Nrf2 should play a significant role in the fight against aging and disease. To date activation of Nrf2 has been shown to: repair DNA, detoxify the body of heavy metals and pesticides, powerfully reduce inflammation, generate mitochondria (energy powerhouses), prevent cardiovascular dis-

ease, diabetes, Alzheimer's, cancer, and reverse aging of the skin. The first Nrf2 activator drug, Tecfidera, was released last year to treat multiple sclerosis. Prior to its launch it went head to head against Protandim and Protandim was found to be 50% stronger in activating Nrf2.

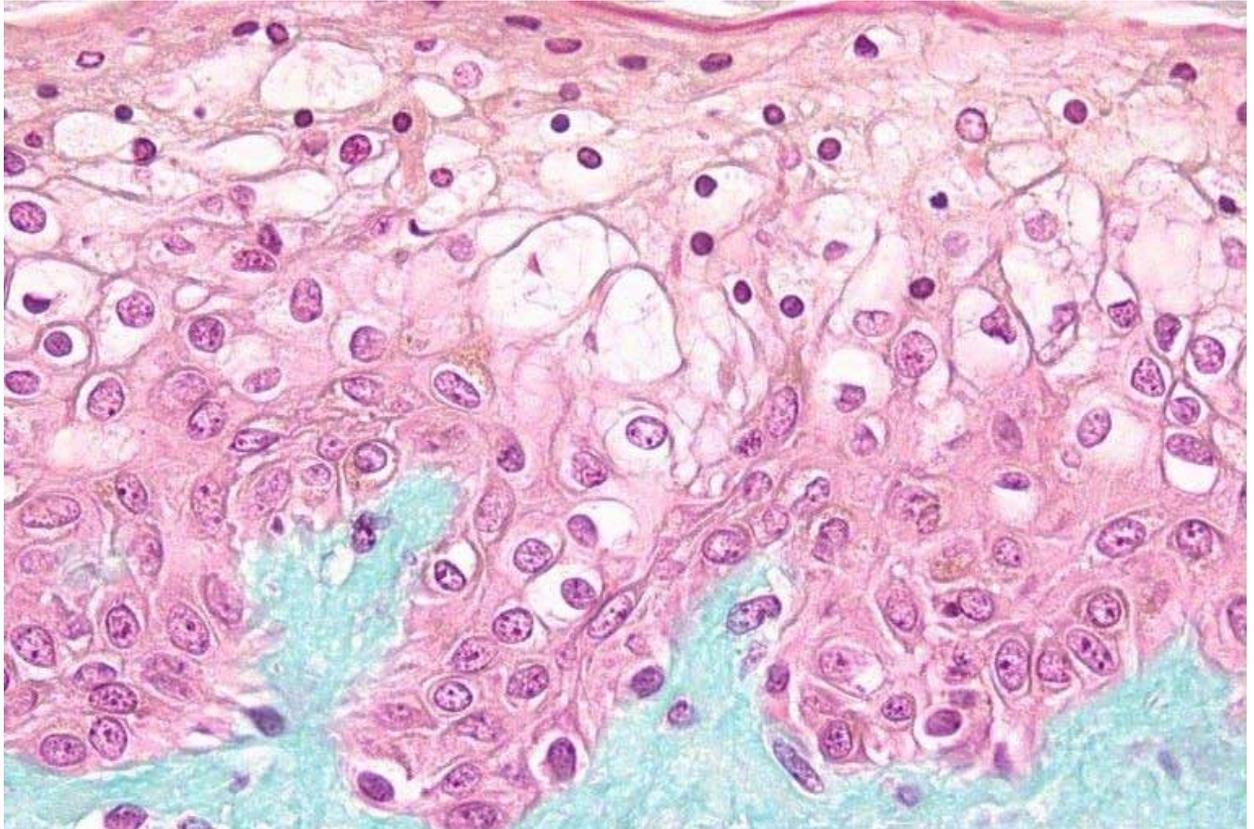
Since, Protandim is a nutritional supplement it cannot claim that it cures or prevents diseases. It's claim that it reduces oxidative stress by an average of 40% in 30 days in everyone who takes it has been peer reviewed and accepted by the FDA as a proven fact.



# **True Science Skin Care**

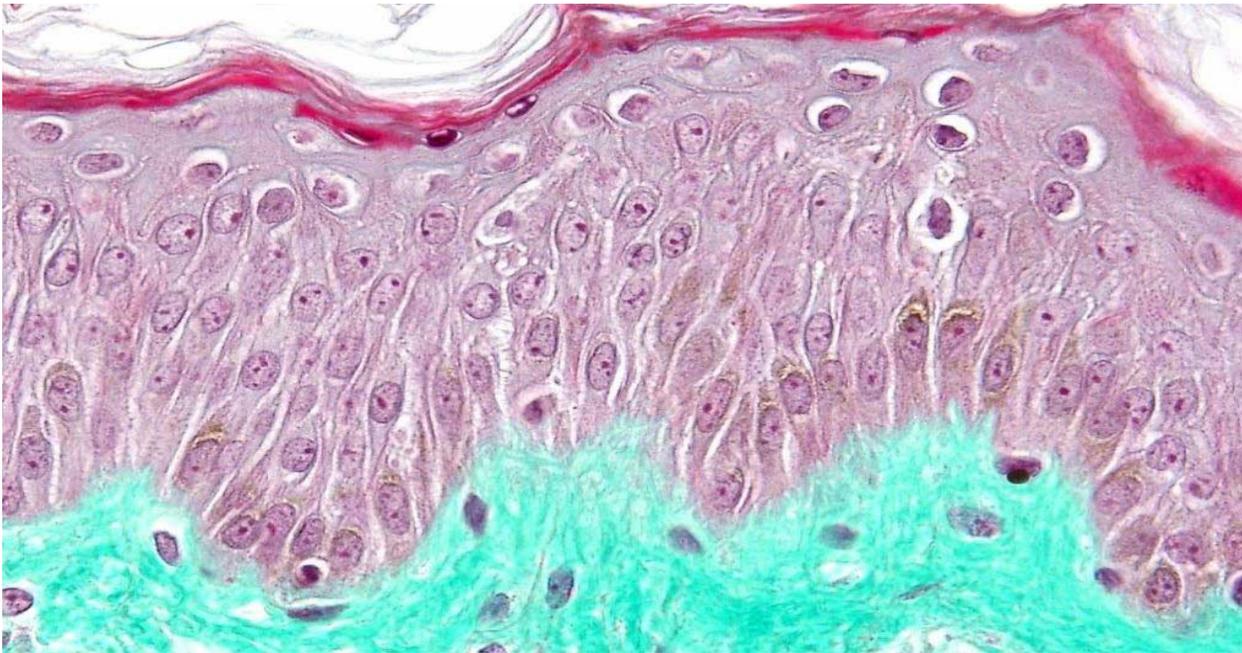
## **Nrf2 Activation of Skin Cells**

### **Retinol Facial Cream for 7 Days**



**6 to 7 Layers of Damaged, Bloated Cells with Pyknotic nuclei.  
Dying Cells**

## **True Science Facial Cream for 7 days**



**6 – 7 Layers of Cells with Good Morphology and Organization. Denser Dermis**

**Visible Results in just 28 days. Skin is more youthful in appearance with reduction in fine lines and wrinkles.**





John 4: 13-14 Jesus said to her, "Everyone who drinks of this water will be thirsty again, but those who drink of the water that I will give them will never be thirsty. The water that I will give will become in them a spring of water gushing up to eternal life.

[www.viglionemd.com](http://www.viglionemd.com)

It is our goal to fully individualize treatment for all of our patients. I do not believe in the "one size fits all" philosophy of medicine. Each person is unique with his/her own genetics and environmental exposure. My goal is to find the root cause of each illness and address it with nutritional therapy, and detoxification to allow the body to heal itself. I do use drug therapy when needed. It is my goal to help each of my patients restore their health and to delay and reverse to some extent the aging process.

Deborah D. Viglione, MD

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Did you know? Dr. Viglione is one of 700 board certified in anti-aging medicine? She is one of the first sixteen who were fellowship certified in Stem Cell Medicine after completing the first ever stem cell fellowship in the World!

## **Weight Loss**

### **Dietary and Fitness Counseling**

**-Appetite Suppressants**

**-HCG diet**

**-Weight Loss Shots**

**-Hormonal Testing**

**-Vitamin/Herbal**

**Supplements**

**Far Infrared Sauna Therapy**

## **Cosmetic Services**

**Botox**

**Injectable Fillers**

**Liposuction and Non Surgical Liposuction/Body Sculpting**

**PRP Facials**

**Fotorejuvenation**

**Sclerotherapy**

**Permanent Hair Removal**

**Microdermabrasion**