

Free Radical Clinical Study

By Michel Coyle

Director of Research and Education
NuLife Sciences

Purpose

To provide measurement for the reduction of excess free radical activity (oxidative stress) in the blood stream using Cellfood— a nutritional supplement.

Introduction

Free radicals are highly reactive molecules that are produced internally by our own human organism. A healthy person is equipped to face the presence of free radicals by defending the body with an anti-free radical system. This internal anti-free radical system consists of enzymatic and non-enzymatic mechanisms including superoxidedismutase, catalase, carotenoids, polyphenols, and anthocyanines among others. However, most people are not able to effectively handle excess free radical activity. If the quantity of free radicals produced by the human body is superior to the physiological and biological processes, the end result is oxidative stress causing cellular damage. There are 5 major free radicals responsible for causing cellular damage: peroxy radical – hydrophilic, peroxy radical – lipophilic, hydroxyl radical, peroxynitrite, and singlet oxygen (O⁺). For the purpose of the clinical study, we will be looking specifically at the singlet oxygen free radical.

Methods and Procedures

Using a FRAS d-Rom (Diacron) system measuring reactive oxygen metabolites, 5,000 healthy subjects were measured as a base. The subjects' hydroperoxide levels as measured by d-ROMs test have a unimodal distribution that picks between 250 and 300 CARR U (i. e. between 20 and 24 mg/dL H₂O₂). Units of measurement are indicated with the initials "CARR U", i. e. Carratelli Units, by the name of the Italian research chemist Mauro Carratelli. Carratelli Units (CARR U): 1 CARR U corresponds to 0.08 mg/100 ml H₂O₂. The baseline chart is shown below.

CARR U	Oxidative Stress Level
300-320	Borderline range
321-340	Low level of oxidative stress
341-400	Mid-level of oxidative stress
401-500	High level of oxidative stress
>500	Very high level of oxidative stress

1 CARR U Corresponds to 0.08 MG/100MI H₂O₂
Normal (Average) Range: 250-300 CARR U

A total of 60 individual subjects were selected (32 male – 28 female) and divided into the six following categories:

- smokers** (ages 18-30)
- smokers** (ages 31-50)
- athletes** (ages 18-30)
- athletes** (ages 31-50)
- poor diet/obese**— as measured by Body Mass Index (ages 18-30), and
- poor diet/obese**— as measured by Body Mass Index (ages 31-50)

Each subject continued their normal lifestyle (sleep, food, drink etc...) during the 6-week study period.

Each subject consumed 8 drops of Cellfood, 3 times per day. Blood measurements were taken once weekly and their averages were recorded in the chart below.

Results

U. CARR values before and after CELLFOOD			
Group	Ages	Average Values	
		Before	After
Smokers	18-30	380 ± 36	332 ± 23
Smokers	31-50	474 ± 30	355 ± 28
Athletes	18-30	418 ± 35	303 ± 23
Athletes	31-50	389 ± 33	349 ± 41
Poor diet – obese	18-30	362 ± 29	298 ± 41
Poor diet – obese	31-50	302 ± 29	265 ± 29

Conclusions and Observations

Cellfood successfully and significantly **reduced the oxidative stress (free radical) level in each of the 6 subject groups on average from 10% to 27%**. One of the particularly interesting notes was the pretreatment measurement of free radical activity in the “athlete” group (ages 18-30). The oxidative stress level (pretreatment) was actually higher than both of the other two groups suggesting that exercise (at least 3 times per week in this study) produces a much higher rate of free radicals in the blood; thus the additional need for that group to combat free radical activity and cellular damage.