

Effect of different micronutrient combinations on the protection of cells against free radicals (antioxidative potential)

Exhaust gases, contaminated water, cigarette smoke and other environmental toxins contain aggressive molecules that are capable of causing serious damage to the body's cells. These molecules include, in particular, reactive oxygen species (ROS). Therefore, this process is also referred to as "biological rusting".

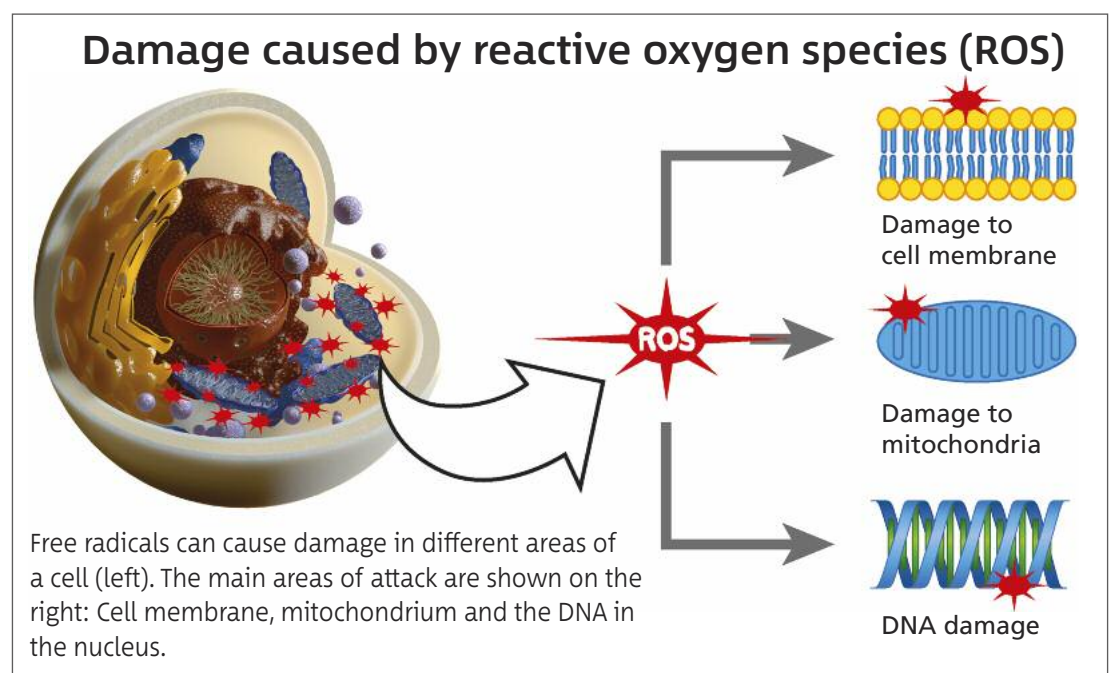
A healthy organism has protective mechanisms to effectively prevent cell and tissue damage caused by ROS. Antioxidants directly react with ROS and neutralize their damaging effect, thereby rendering them harmless. When the amount of free radicals exceeds the amount of antioxidants, this state is called "oxidative stress". It has

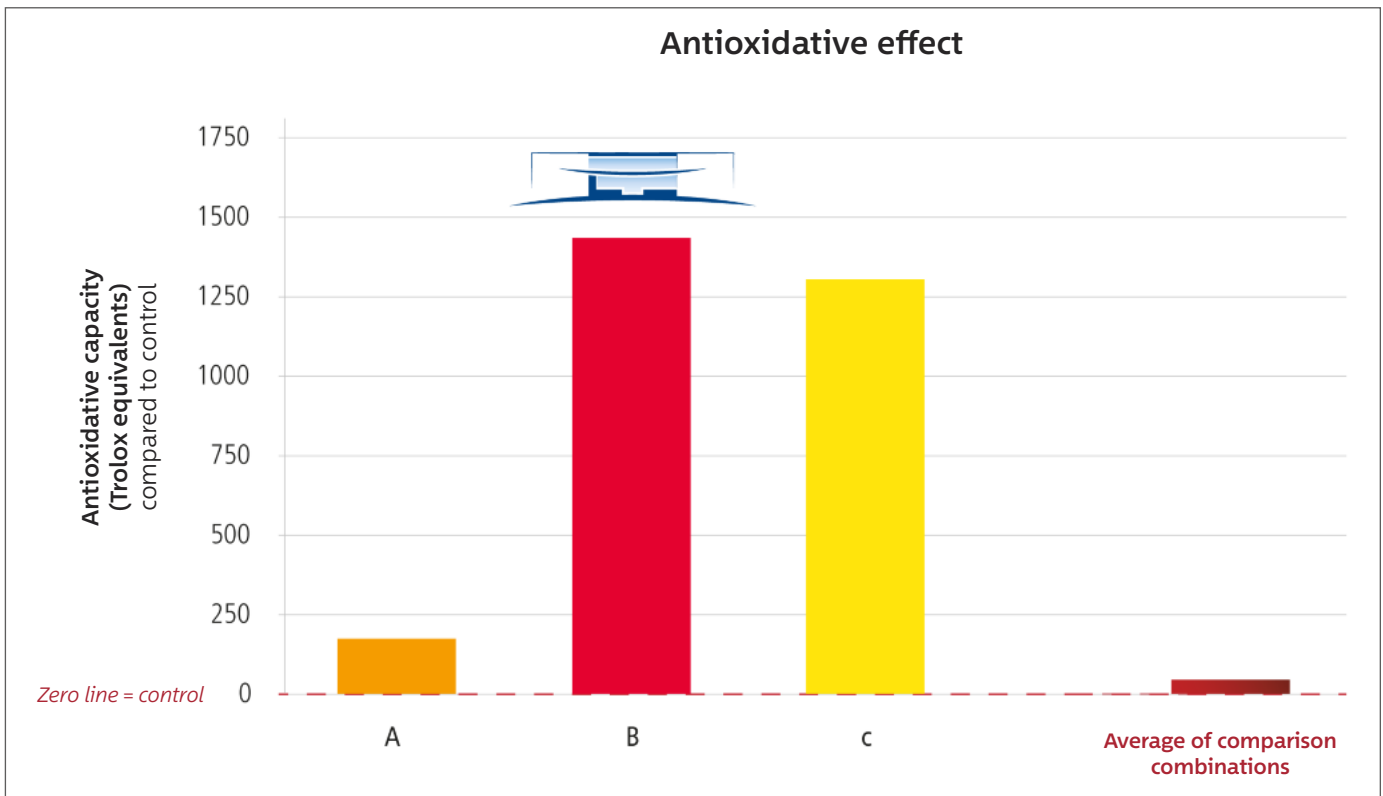
been associated with numerous health conditions and early aging. The most important antioxidants are micronutrients, such as certain vitamins and polyphenols.

Do the tested micronutrient combinations protect against oxidative stress?

The antioxidative capacity of the comparison products was investigated by means of a standardized measurement method (Trolox Equivalent Antioxidant Capacity, TEAC). Results of these tests are presented in so-called "Trolox equivalents".

For the comparison products, an average antioxidative capacity of 40 Trolox equivalent





Tested micronutrient combinations composed of:

A: Different vitamins, minerals, trace elements, amino acids and phytochemicals

B: Vitamin C, lysine, proline, arginine, green tea extract, quercetin, selenium, copper, manganese

C: Vitamin C in the form of ascorbic acid, buffered vitamin C and ascorbyl palmitate, as well as bioflavonoids

lents was measured (red column), indicating very little protection against cell-damaging oxidative stress.

In contrast, the scientifically tested and developed micronutrient combinations were found to have a high antioxidative potential, thus providing a significantly increased protection against free radicals.

This applies particularly to the combinations developed for cell protection. The measured values were 1430 (column B) and 1300 (column C) Trolox equivalents, respectively.

As shown in these tests, product labels or advertisements using the term "antioxidant" should always be questioned.

Without scientific tests, such claims are untenable.