

# What is an antioxidant?

The term antioxidant is mainly used for two different groups of substances: industrial chemicals which are added to products to prevent oxidation, and natural chemicals found in foods and body tissues which are said to have beneficial health effects.

When oxidation occurs in the human body, this process can produce substances called free radicals, high levels of free radicals can put one at risk for serious health problems, such as certain cancers and cardiovascular issues. This is where antioxidants serve as a powerful tool. They are substances that inhibit the oxidation process, hence the terms "anti" + "oxidant." They work by preventing free radical chain reactions before they start or stopping the reaction after it starts. Antioxidants essentially neutralize the free radicals. Animals maintain complex systems of overlapping antioxidants, such as glutathione and enzymes produced internally or the dietary antioxidants, vitamin A. vitamin C and vitamin E.

## What is Total Antioxidant status? (TAS)

The antioxidant defence system has many components; a deficiency in any of these components can cause a reduction in the overall antioxidant status of an individual. Reduction in total antioxidant status has been implicated in several disease states, such as cancer and heart disease. The Randox TAS kit measures the total antioxidant capacity of a sample i.e. anything that has an antioxidant effect.

## Did you know?

High levels of free radicals can put one at risk for serious health problems, such as certain cancers and cardiovascular issues highlighting the importance of monitoring these levels.

### Features of Randox Total Antioxidant Status

- Colorimetric method
- Lyophilised reagents
- Working reagent stable for 2 days at 2-8°C or 8 hours at 15-25°C
- Measuring range 0.21-2.94 mmol/l
- Applications available

### Useful links

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