

Dental Currents - Chapter 3

The Health Equation

Balance in life is important. Our inflammatory response is no exception so our Health Equation makes it easier to understand.

The Health Equation states, '**oxidation equals antioxidation**'

What is oxidation? When an apple is cut, oxidation causes it to turn brown or decay. Squeezing an antioxidant like vitamin C from a lemon on the apple prevents it from turning brown. Similarly, things that irritate the body, like bacteria on the teeth, cigarette smoke in the lungs or excessive sun exposure cause an oxidation process. The body uses antioxidants to protect itself.

When "**oxidation = antioxidation**", everything is happy and healthy.

If irritation increases or lasts a long time, the excessive oxidation can overpower the body's antioxidant defenses. To defend itself, the body uses inflammation to make up the difference. Note how the equation changes -

"Excessive oxidation = antioxidation + inflammation"

Good inflammation is short term and the normal way for the body to protect itself.

It is controlled so that when the oxidizing irritant is removed, the inflammatory reaction is turned off and healing is complete. Examples are cleaning your teeth to remove plaque (gingivitis or red, bleeding gums heal), quitting smoking (bronchitis causing smoker's cough heals) or protecting yourself from excessive sun (sunburn is inflammation).

Chronic or long term inflammation is never turned off. The breakdown/repair process eventually uses up the body's healing reserves and damage occurs either at the point of local irritation or genetic weakness. Examples are never cleaning your teeth (periodontal disease), chronic smoking and air pollution (lung cancer) and constant excessive sun exposure (skin cancer).

The better you can balance your "Health Equation" by **reducing oxidation and increasing antioxidation, the less inflammation will be required** and health will be maintained or restored.

Dental health depends on balancing the equation. You can reduce the forces of oxidation by reducing the bacteria on our teeth and gums by brushing and flossing. Our dental hygienists clean your teeth. Fillings fill up the holes or cavities in your teeth to make them more cleansable. In short, every dental procedure focuses on improving cleansability to reduce oxidation due to bacteria.

You can increase the antioxidant side with a balanced diet including lots of fruits and vegetables. We also strongly encourage you to take a high quality multivitamin/mineral/

antioxidant. This is the best possible health insurance you can have when it comes to balancing your Health Equation.