# The Wellness Express The Jump on the train to good health

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#### **How Antioxidants Reduce Inflammation**

#### Presented by:

If you are a health conscious person, you have probably heard about antioxidants. These important molecules do a lot to protect your body from damage caused by toxins and disease. One of the most significant duties antioxidants perform is reducing inflammation - a risk factor for numerous diseases and health problems.

### Inflammation – the Good and the Bad

Is all inflammation bad for you? No, some inflammation is necessary to heal your body. When you damage muscles, tendons or ligaments, you often see inflammation and reduced function in the affected areas. The inflammatory response allows tissue repair and limits further damage by restricting movement in the injured area. However, excessive or chronic inflammation prevents healing, and your body becomes more susceptible to disease.

Antioxidants protect you from free radical molecules, which promote inflammation. Besides joint related diseases like arthritis, inflammation can be a key contributor to heart disease,

stroke, cancer, inflammatory bowel disease, Alzheimer's disease and chronic fatigue syndrome.

It is not possible to completely stop your body from producing free radicals because it is part of natural metabolic processes. In fact, every time you breathe, you create free radicals. However, your chiropractor wants you to know the steps you can take to limit the production of free radicals and reduce inflammation in your body.

Our environment and lifestyle can contribute significantly to the development of inflammation. Avoid exposure to pesticides by eating organic food. When it comes to diet, consume plenty of fruits and vegetables, especially raspberries, blueberries, strawberries, kale and spinach. For protein rich sources, opt for fish over meat. Legumes and nuts are also good sources of protein. Exercise to keep your body in an appropriate weight range.

Stress also promotes inflammation, so learn stress management techniques to keep it under control. Ask your chiropractor for tips on improving your diet and lifestyle.

#### **Exercise of the Week**

Lumbar Stabilization – Dead Bug Difficulty: Moderate

(Consult your chiropractor before starting this or any other exercise.)

Start: Lie on back with knees and hips bent to 90 degrees and feet elevated. Both arms should be straight, with fingertips pointing up toward ceiling.

Exercise: Draw belly button inward toward spine. Then, while keeping spine steady, slowly straighten/lower one leg toward floor. At same time, bring opposite arm over head (toward floor). Pause for 1-2 counts, then return to starting position.

Alternate arms/legs. Perform 5-10 sets per side.







# Tea and Herbs: Heal Inflammation and Reduce Signs of Age

Recent research shows that common herbs and tea may provide excellent protection against inflammation. A British study investigated the healing effects of 21 different plant extracts. The researchers were focused primarily on how inflammation affects skin cells, as inflammatory conditions cause wrinkled skin and premature aging.

The substances that exhibited the most anti-inflammatory action were white tea, witch hazel and rose – all contain antioxidant compounds. The study reported that these three botanical substances play a role in blocking the body from producing the compound interleukin 8, a proinflammatory substance.<sup>1</sup>

A study on botanical substances and inflammation published in the Journal of Lipid Research revealed thyme oil had a powerful effect at suppressing the inflammatory substance known as COX-2. The research studied six plant extracts- thyme, clove, rose, eucalyptus, fennel and bergamot. While all six showed anti-inflammatory action, thyme performed the best by reducing COX-2 presence in cells by 75% compared to 25% for the other plant extracts. This is likely the result of antioxidant flavonoids and high levels of carvacrol, a key ingredient in thyme that both suppresses inflammation and fights bacteria in the body.2

## Spicy Ginger Cools Inflammation

Chronic inflammation is linked to an increased risk of cancer. A study published in Cancer Prevention Research showed that extracts of ginger root could be developed as a therapeutic tool in the prevention of colon cancer. The study consisted of 30 participants who were randomly assigned either a placebo pill or a ginger root supplement (2 grams) taken daily. After the research period of 28 days, scientists measured colon inflammation levels in the patients, and discovered statistically significant reductions in inflammation markers in the ginger extract group.<sup>3</sup>

The antioxidants in ginger could also help relieve muscle pain induced by inflammation. Research appearing in the Journal of Pain indicated ginger acts in a similar way to nonsteroidal anti-inflammatory drugs (NSAIDs). Conducted by the University of Georgia and Georgia College and State University, the study researchers enrolled college students to perform specific exercises. As well, one group of students received daily ginger supplements and a second group consumed a placebo. The students who received ginger reported lower intensity of exercise-induced muscle pain.4



#### **Quote to Inspire**

"An optimist stays up until midnight to see the new year in. A pessimist stays up to make sure the old year leaves."

Bill Vaughan

#### **References and Sources:**

- 1. Antioxidant and potential anti-inflammatory activity of extracts and formulations of white tea, rose, and witch hazel on primary human dermal fibroblast cells *Journal of Inflammation*, 2011; 8 (1): 27 DOI: 10.1186/1476-9255-8-27.
- 2. Carvacrol, a component of thyme oil, activates PPA R-gamma and suppresses COX-2 expression Journal of Lipid Research, January, 2010
- 3. Ginger Root Supplement Reduced Colon Inflammation Markers - American Association for Cancer Research, Press Release, October 11, 2011.
- 4. New Study Reports Ginger Effective for Muscle Pain Relief – The Journal of Pain, published by American Pain Society, Press Release, September 2010.



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