Health Benefits of Citrus Pectin

Citrus Pectin is a plant fiber obtained from the rind and peel of citrus fruits such as lemons, grapefruits, oranges and tangerines. Structurally, pectin is classified as a water soluble, complex polysaccharide, rich in the sugar - galactose. At a molecular level, pectin is a strong binding agent, which directly relates to its tremendous detoxification and cholesterol lowering properties.

Citrus pectin is very bioavailable and has a galactose rich make-up, giving it the ability to deliver the following extraordinary benefits:

- removes heavy metals and toxins
- promotes cardiovascular health
- promotes normal cell growth

Citrus Pectin is a Powerful Detoxifier

In today's world, more than ever, we are exposed to a wide variety of toxins: They're in our air, food and water, in the workplace and at home. We even generate toxins within our own bodies. Our bodies are designed to be self-cleansing and self-healing. The internal detoxification process is an automatic daily procedure of the major detoxification organs. Toxins, however produce irritation and inflammation, adding to the burden of our digestive system. When our digestive system becomes overwhelmed, it is no longer able to adequately perform detoxification functions. This is a condition called "toxic overload".

Exposure to toxins results in an increased production of free radicals which over time damage or age our body tissues. Long term "toxic overload" may result in metabolic and genetic alternations that can affect cell growth, behaviour and immune response. This is because the molecular structures of toxins are carcinogenic as they interact with human DNA. The World Health Organization has implicated environmental toxic chemicals in over 60 to 80 per cent of all cancer cases.

Scientists estimate that over 50 percent of U.S. residents have too much heavy metal in their bodies. These metals, which include lead, mercury, aluminum, cadmium and arsenic, are found in industrial by-products as well as in tainted drinking water, pesticides and even things as common as dental fillings and cooking utensils. Once these chemicals are inside us, we can never fully eliminate them unless we undergo a detoxification process. As a result, most of us need some form of detoxification.

In the past, detoxification was administered to reformed alcoholics and drugs addicts, cancer patients and people with severe allergies. Nowadays it is adopted by healthy individuals to maintain their body systems in pristine condition. Detoxification can make a big difference in optimizing the bodily functions. In fact, it might even help prevent chronic opportunistic diseases such as cancer, diabetes, chronic fatigue and arthritis. Detoxification, coupled with a
healthy diet, is an essential anti-aging tool. It is one of the best ways to remain healthy in a polluted and toxic environment.

Signs that Detoxification is Needed:

- unexplained headaches or back pain
- joint pain or arthritis
- memory is failing
- depression or lack energy
- brittle nails and hair
- psoriasis
- abnormal body odor, coated tongue or bad breath
- unexplained weight gain
- frequent allergies

History that may indicate Detoxification is needed:

- heavy alcohol use
- natural and synthetic steroid hormone use
- exposure to cleaning solvents, pesticides, diuretics and certain drugs

Benefits of Detoxification:

- More Energy
- Stronger Immunity
- Easier Weight Loss
- Fewer Allergies
- Fewer Aches & Pains
- Healthier Skin, Hair and Nails

The Pectin Plus® unique formula makes for a very potent detoxification support product, designed to bind with and remove heavy metals and other toxins in the body.

**Citrus Pectin and Detoxification**

The standard western medical approach for removing heavy metals from the body is chelation therapy. This procedure, performed with harsh chelators introduced intravenously, can cause multiple side effects while potentially robbing the body of some of its essential nutrients. Citrus Pectin as a detoxification agent that works as a gentle chelator in the bloodstream and it is very useful for ongoing use with no side effects.

Two recent clinical studies have found that Citrus Pectin is a very safe and effective supplement for reducing heavy metal load. In one recent clinical study, Citrus Pectin was administered to a group of volunteers, and baseline levels of their total body mercury burden were measured and then compared against levels after treatment with Citrus Pectin for four months. The results showed a significant average decrease (over 60%; p=0.03) in the total body mercury burden after treatment with Citrus Pectin. In an earlier study, Citrus Pectin was given to patients and proven to increase urinary secretion of heavy metals such as lead, mercury, cadmium and arsenic. Both studies concluded that Citrus Pectin is a viable alternative
to the harsher intravenous chelating therapies as Citrus Pectin was found to be both effective and free of any side effects.

**Citrus Pectin and Cardiovascular Health**

The idea of using pectin to control cholesterol levels is not new. Several studies published in the 1990s (the Journal of Nutrition and the American Journal of Clinical Nutrition) have examined the cholesterol lowering effect of pectin in animals and humans. It is well documented that pectin binds to cholesterol, enabling the cholesterol to be excreted from the body.

Citrus Pectin also has the additional property of inhibiting cholesterol from forming plaque, the sticky substance which adheres to blood vessel walls, clogging and restricting blood flow. This is a huge benefit in reducing the risk of stroke and heart attack.

A study published in the Journal of Clinical Cardiology showed citrus pectin supplementation significantly decreased blood cholesterol levels without altering patients diet or lifestyle.

A recent study published in the May, 2004 issue of the Journal of Agriculture and Food Chemistry shows that Citrus Pectin contains a powerful compound called polymethoxylated flavones or PMFs that can lower bad LDL cholesterol as effectively as the dangerous statin drugs and without side-effects.

Extensive research by Texas A & M University's Agricultural Research Center has shown that Citrus Pectin may prevent prostate cancer.

Click [Here](#) to read more about research documenting the cardiovascular benefits of Citrus Pectin.

**Citrus Pectin and Cancer**

Conventional cancer treatment involves surgery to remove primary tumors, followed by chemotherapy, radiation, or a combination of treatments designed to eradicate all remaining traces of cancer. This follow-up therapy is critical for addressing the biggest threat from cancer - the formation of secondary cancers, or metastases. Metastases are not new or different cancers, but rather new cancer colonies started from primary cancer cells that have migrated to new sites. Sites where metastases commonly occur include the bones, lungs, prostate, kidney, liver, thyroid and brain. Left unchecked, metastases can quickly overwhelm the body's defenses. In fact, it is metastases, not primary tumors that are responsible for most cancer deaths.

Scientists used to think cancer cells were individual actors, and that even a single cell escaping from the main tumor would likely start a new colony elsewhere in the body. But now we know that cancer growth is more of a "group activity". Just as a platoon of soldiers is more powerful than a single rifleman, cancer cells are more dangerous when they assemble and clump together. To do this, they must communicate with and bind to one another. That cell-to-cell interaction is made possible by special protein molecules called galectins that sit on the outer surfaces of the cancer cells.

After a cancer cell has broken free from its primary tumor (or is accidentally dislodged during surgery) it floats freely through the blood and lymph systems until it eventually becomes trapped in a small blood vessel (microcapillary). Firmly lodged in the microcapillary, galectins...
on the surface of the cancer cell start to bind to galactose receptors on endothelial cells (the cells that form the inside lining of blood vessels). After securely attaching to the endothelium, the cancer cells penetrate through and invade the blood vessel walls. The final step in establishing a new tumor colony is the release of chemical signals that trigger new blood vessel growth (angiogenesis). The new blood vessels will supply the cancer cells with the nutrients they need to grow and thrive.

The powerful attraction between galectins and galactose plays a pivotal role in Citrus Pectin as a potential cancer therapy. Galectins and galactoses work much like a car's key and ignition. Only the correct key will fit into the ignition and activate the engine. Other keys may "fit", but they will not "fit" quite right - they will only jam the ignition and prevent it from working. Galactose rich Citrus Pectin has a strong binding affinity for galectins and being the "wrong key" has the ability to jam up the "molecular ignition", preventing the right key from getting in. With their molecular ignitions jammed, cancer cells find it harder to stick to other cancer cells or to healthy tissues. In short, they are rendered less likely to metastasize. Citrus Pectin has the additional effect of blocking angiogenesis which results in the cancer cells being starved to death.

Of all diseases, Citrus Pectin has been studied most extensively for prostate cancer, one of the most common cancers in men. Citrus Pectin has been shown to slow PSA doubling time, which could potentially result in the inhibition of cancer metastasis.

Click Here to read more about research on Citrus Pectin and Cancer.

Source: http://www.pectin-plus.com/