



APPLEPECTINRICH™ SUPER STRENGTH APPLE PECTIN CONCENTRATE

Supports healthy detoxification

Our ancestors believed the old proverb that an apple a day keeps the doctor away. Today, there is plenty of evidence to show how apples protect good health. Apples are rich in healthy phytonutrients, antioxidants, and dietary fibre.

Dietary fibre is found only in plant foods (fruits, vegetables, nuts, and grains) and refers to the parts of plants that the body is unable to digest. Dietary fibre is classified as soluble or insoluble fibre. According to the recommendations of the Dieticians of Canada, Canadian adults should consume about 38 g of total fibre per day for men and 25 g per day for women. Most Canadians eat less than half of the daily recommended amount.

Pectin is an important soluble dietary fibre. It is a natural part of the human diet, and daily intake from fruit and vegetables is estimated to be about 5 g per day. Apples are an excellent source of both insoluble and soluble (pectin) fibre. Dried apple pomace (the solid matter that remains after pressing the fruit) contains from 10-20% pectin. One medium apple provides more than 10% of the recommended daily fibre requirement.

Pectin has many favourable effects on health and provides benefits for individuals of all ages. Pectin reduces LDL cholesterol beyond that achieved by a diet low in saturated and trans fatty acids, and cholesterol. Pectin is also helpful in maintaining healthy blood glucose levels and good digestive health, and has potent immune modulating, anti-cancer, antioxidant, and detoxifying properties. Natural Factors ApplePectinRich provides 500 mg of pure apple powder per capsule, standardized to 16% pectin.

100% APPLE GOODNESS

ApplePectinRich is a unique pectin-rich product, containing 100% apple goodness with no added ingredients. Each 500 mg vegetarian capsule is standardized to contain 16% apple pectin, and every 2.5 g (5 capsules) of ApplePectinRich is equivalent to one medium apple. ApplePectinRich is a valuable source of dietary fibre, containing 300 mg of fibre per 500 mg capsule. ApplePectinRich is a high methoxyl concentrate, meaning that it has a relatively high viscosity compared to other pectin sources, and provides the full spectrum of antioxidants found in the apple peel, core, and flesh, with appreciable amounts of total polyphenols (1.23% total polyphenols per capsule).

Among the fruits, apples, along with strawberries, are the best dietary sources of antioxidants. Over two dozen

antioxidants have been found in apples, and many of these have potent antioxidant and anticancer activities. Many have antioxidant activity superior to vitamin C (He, Liu). ApplePectinRich is an effective natural way to detoxify the body, lower cholesterol, and aid in the fight against chronic diseases such as diabetes and cancer.

THE HEALTH BENEFITS OF APPLEPECTINRICH

- Lowers blood cholesterol levels
- Supports healthy detoxification
- Supports elimination of heavy metals and toxins from the body
- Decreases symptoms of digestive tract disorders and irritations, including constipation, diarrhea and colitis
- Increases satiety and aids in weight loss
- Normalizes blood sugar levels
- Provides antioxidant effects
- Reduces the risk of developing chronic diseases, including diabetes, cancer, and heart disease

DETOXIFIES, SOOTHES AND SUPPORTS

High levels of toxins in the body can lead to a weakened immune system, chronic feelings of fatigue, low energy, poor health, increased illness and disease, and inability to recover from illness. Detoxification involves removing toxins from the organs of elimination, such as the skin, kidneys, liver, lungs and bowels. ApplePectinRich contains high levels of pectin and natural antioxidants to detoxify and soothe the entire body. Pectin binds to harmful toxins, heavy metals, carcinogens, and bile acids in the gastrointestinal tract and eliminates them with the stools, providing a direct and immediate detoxifying effect.

Pectins have been found to remove heavy metals (such as lead) and radioactive materials from children and adults in a safe and gentle way without side-effects or toxicity (Zhao, *et al*). A randomized, double-blind, placebo-controlled trial in 64 Chernobyl children found that supplementation of a radiologically "clean" diet with an apple extract containing 15-16% pectin reduced the 137 Cesium levels significantly after only three weeks (Nesterenko, *et al*). The 137 Cesium levels were reduced to 62.6% in the group receiving apple pectin, whereas the children receiving clean food and placebo had reductions of only 13.9%.

SUPPORTS GASTROINTESTINAL HEALTH

The effects of pectin and other dietary fibres on gastrointestinal function are apparent at all stages, from ingestion

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through defecation. Pectin increases satiety by slowing gastric emptying, decreasing caloric intake, promoting bulk, normalizing intestinal tract function, and acting as a prebiotic, which encourages the growth of beneficial bacteria. Pectin has bactericidal effects on harmful pathogenic and opportunistic micro-organisms, including *Staphylococcus aureus*. Apple pectin helps cleanse and soothe the intestinal tract, and aids in the removal of accumulated waste, chemicals and toxins. Pectin is useful in preventing and managing intestinal tract irritations and disorders, including diarrhea and constipation, enteritis (inflammation of the small intestine), diverticulosis, and colitis.

PROTECTS AGAINST CHRONIC DISEASES

Pectin also improves blood glucose control and cholesterol metabolism, helping to aid in the management of diabetes, gallstones, colorectal cancer, obesity and heart disease. Research confirms the positive effect of apple pectin in reducing the development of chronic disease. In clinical trials, diets high in apple pectin (20 g per day) significantly improved glucose tolerance in diabetic patients in only four weeks (Schwartz). Another clinical study found that diets rich in pectin have been associated with lower risks of abdominal fat deposition in a population of HIV-positive men (Hendricks, *et al*). Individuals with HIV are prone to developing fat redistribution syndrome, a disorder characterized by increase in fat deposition in the abdominal and other areas. The study authors conclude that dietary fibre may be useful in preventing the deposition of abdominal fat in disorders such as Metabolic Syndrome and in Type II diabetes.

SUPPORTS CARDIOVASCULAR HEALTH

Pectin is a very effective soluble fibre that has the demonstrated ability to lower the amount of cholesterol in the blood. The body eliminates cholesterol through the excretion of bile acids. Pectin binds to bile acids, leading to increased excretion of cholesterol.

Pectin is one of the dietary fibres that can lower both total and “bad” low density lipoprotein (LDL) cholesterol without affecting the “good” high density lipoprotein (HDL) cholesterol. On a daily basis, every gram of pectin fibre is important, since each additional gram consumed is estimated to lower total and LDL cholesterol by a measurable amount.

A growing body of evidence is finding that increased consumption of pectin and other fibres in the diet, lowers the risk of developing coronary heart disease and other cardiovascular problems through a number of mechanisms, including lowering total and LDL cholesterol, improving insulin resistance, and decreasing inflammation. Researchers concluded that pectin has a favourable effect on human health due to its ability to modulate inflammation and the immune response (Salman, *et al*).

ALLERGY RELIEF

There is increasing evidence that apple pectin may be helpful in alleviating allergy symptoms. In one study involving 14 men and women, researchers asked the participants to consume 8.4 g of refined apple pectin per day, which is the equivalent of six apples. The levels of histamine in the blood of the test subjects fell considerably in 11 of the 14, after just three weeks of use. Five of the participants saw their histamine levels cut in half. When the subjects stopped taking apple pectin, their histamine levels returned to their previous levels.

DOSAGE

1 to 3 capsules, 1 to 2 times daily, or as directed by a health care practitioner. Capsules can be taken with or before meals with a glass of water. The capsules can also be opened and sprinkled on foods such as cereals, or added to yogurt, soup, or smoothies for additional fibre and nutrition.

SAFETY

Pectin is a normal part of the human diet. Apple pectin can be safely consumed by individuals of all ages. Allergic reactions to orally ingested

pectin have not been reported. However, it is recommended that individuals sensitive to or allergic to apples should not consume ApplePectinRich.

Pregnancy and lactation: Suitable for pregnant or lactating women.

Children: Suitable for children at one quarter to one half the adult dose.

Drug Interactions: Fibre supplements may delay the absorption of certain medications. Medications should be taken at least one hour before or two hours after taking fibre supplements. Possible interactions may occur with amitriptyline, digoxin, carbamazepine, cholestyramine, lithium and penicillin. Individuals on these medications should consult with their health care practitioner before consuming fibre supplements.

Contraindications: Individuals sensitive to or allergic to apples should not consume ApplePectinRich.

ApplePectinRich provides 16% pectin, the soluble fibre that has been singled out as one of the most beneficial fibres, with unique health-promoting qualities. Dietary fibre in the form of apple pectin is a true guardian of our health, confirming the age-old saying that an apple a day keeps the doctor away.

KEY REFERENCES

- He X., Liu R.H., “Phytochemicals of apple peels: isolation, structure elucidation, and their antiproliferative and antioxidant activities”, *J Agric Food Chem*, 56 (21): 9905-9910; 2008
- Hendricks K.M., Dong K.R., Tang A.M., Ding B., Spiegelman D., Woods M.N., Wanke C.A., “High-fibre diet in HIV-positive men is associated with lower risk of developing fat deposition”, *Am J Clin Nutr*, 78 (4): 790-795; 2008
- Nesterenko V.B., Nesterenko A.V., Babenko V.I., Yerkovich T.V., Babenko I.V., “Reducing the 137Cs-load in the organism of ‘Chernobyl’ children with apple-pectin”, *Swiss Med Wkly*, 134 (1-2): 24-27; 2004
- Salman H., Bergman M., Djaldetti M., Orlin J., Bessler H., “Citrus pectin affects cytokine production by human peripheral blood mononuclear cells”, *Biomed Pharmacother*, 62 (9): 579-582; 2008
- Schwartz E., Levine R.A., Weinstock R.S., Petokas S., Mills C.A., Thomas F.D., “Sustained pectin ingestion slowed the gastric-emptying rate and improved glucose tolerances”, *Am J Clin Nutr*, 48 (6): 1413-1417; 1988
- Zhao Z.Y., Liang L., Fan X., Yu Z., Hotchkiss A.T., Wilk B.J., Eliaz I., “The role of modified citrus pectin as an effective chelator of lead in children hospitalized with toxic lead levels”, *Altern Ther Health Med*, 14 (4): 34-38; 2008