

# **Apple Pectin**

#### InovoBiologic Apple Pectin

- Apple pectin derived from organic apples.
- 100% apple goodness with no excipients.
- Every 2.5g (5 capsules) of organic Apple Pectin powder is made from one medium apple.
- Includes full spectrum antioxidants found in apple peel, core and flesh.
- Capsules can easily be taken with or before meals with a glass of water.
- Easy-to-open capsules can also be sprinkled on foods (cereals, yogurt or soup) or into Smoothies for added fibre and nutrition.

Does an apple a day really keep the doctor away? It would seem so. Apples are full of health supporting phytochemicals and they provide both soluble and insoluble fibre. In fact, one medium apple provides more than 10 percent of the recommended daily fibre requirement for a Canadian adult. Eating apples is associated with reduced risk for heart disease, Type 2 diabetes, asthma and cancer. The apple's soluble fibre, called pectin, is one of the most beneficial fibres know and it has unique health-promoting qualities.

Pectins are complex polysaccharides present in the cell walls of plants and in the spaces between cell walls. Apples are an excellent source of pectin. They can contain from 10 to 20 percent pectin. Apple peel itself contains 15 percent pectin.

### Getting the lead out —detoxifying with apple pectin

Apple pectin can help detoxify the body of heavy metals such as lead and mercury. Pectins bind to harmful carcinogens in the body so they can be eliminated with the stools.

Pectin was shown to reduce mercury levels in 146 chil¬dren aged 7-14 who had unhealthy levels mercury in their urine. Researchers suggested that apple pectin may be effective in detoxifying other harmful chemicals as well, including radioactive materials.

A trial of 64 Chernobyl children using an apple extract with 15 to 16 percent pectin showed an average reduction in levels of radioactive 137Cesium of 62.6% after just three

weeks. Children receiving "clean" food only and placebo showed reductions of only 13.9 percent.

#### Promotes intestinal tract health

Apple pectin helps the bowels function more effectively by increasing bulk. Pectin can be especially effective for both diarrhea and constipation. Children, 6 months to six years, with acute diarrhea were treated with apple pectin/chamomile or placebo. There was a statistically reduced stool frequency and a shortened course of diarrhea in the treated children compared to the control group. Pectins also have a prebiotic effect encouraging the growth of probiotic bacteria necessary to digestive health.

#### Apple pectin and carcinogenesis

Animal studies show that pectins from apples and citrus reduce enzymes that promote colon cancer. In particular, apple pectin may decrease beta-glucuronidase, a key enzyme in carcinogen activation and tumor initiation in the colon.

#### Helpful for weight loss

Pectins promote satiety so an apple pectin supplement can be helpful as part of a weight loss program.

#### Lowers harmful LDL cholesterol

In addition to heavy metal detoxification, apple pectin binds with harmful cholesterol and bile fats before they can be absorbed by the body, helping to reduce the risk of coronary artery disease.

Another animal study suggested that orange and apple pectin could lower hepatic and serum cholesterol. Hepatic cholesterol declined in all pectin-fed groups but only the apple pectin-fed group had significant declines in serum cholesterol.

#### Regulates blood sugar levels

Apple pectin may be helpful in lowering blood glucose levels by slowing the body's absorption of dietary sugar.

## Health benefits of apple polyphenols found in InovoBiologic Apple Pectin

InovoBiologic Apple Pectin is made from the whole apple, including the flesh, core and especially the peel, to provide highly concentrated pectin and other phytonutrients.



Research shows that apple peels can contain two to six times more phenolic compounds and two to three times more flavonoids than apple flesh alone.

#### Safety of apple pectin

Apple pectin should not be taken by anyone allergic to apples.

Apple pectin may cause loose stools and gas. As with any fibre supplement, start at a lower dosage and slowly work up. Always drink at least 8 ounces of water when supple¬menting with apple pectin.

**Drug interactions:** Pectin may decrease the absorption of prescription drugs therefore most experts recom¬mend

taking drugs at least three hours before or after taking a fibre supplement such as apple pectin.

Pectin can reduce the absorption of minerals, so it's wise to take mineral supplements at least 45 minutes before or after taking apple pectin.

Pregnancy and lactation: Fibre supplements such as pectin are generally considered safe in pregnancy and lactation, especially if taken in moderate amounts. However, therapeutic doses of pectin should only be taken on the advice of a physician.