

- 1 Supports healthy cholesterol levels in hypercholesterolaemic patients.
- 2 Supportive therapy to hyperlipidemia patients in conjunction with conventional statin therapy.
- 3 Reduce levels of total cholesterol in men and women with high LDL and low HDL levels.
- 4 Helps to maintain important HDL levels in patients on conventional statin therapy. HDL the good cholesterol is reduced when taking statin medications, and important to keep those levels normal.
- 5 Reduces high triglycerides levels in hyperlipidemia (high LDL levels and high triglycerides) patients.
- 6 An adaptogen to help increase energy levels and resistance to stress associated with metabolic syndrome.
- 7 Supports a favourable gut flora.
- 8 Supports intestinal/gastrointestinal health.



Each capsule contains medicinal ingredients: .4 billion cfu, proprietary strain of lactobacillus plantarum, 370mg plant sterol esters, 50 mg ashwagandha root. In a veggie capsule.

Consult a health care practitioner/doctor/physician prior to use if you are pregnant or breast feeding. Or if you have a fever, vomiting, bloody diarrhea or digestive upset beyond 3 days. Avoid taking with alcohol or products that cause drowsiness. Do not use if you have a immune-compromised condition (aids, lymphoma, long term use of corticosteroid treatment).

**It is advised to use the product for minimum of 12 weeks to see a beneficial effect on blood lipid levels.**

**Science:**

1. <https://www.sciencedirect.com/science/article/pii/S1756464622000093>
2. World Health Organization Fact Sheet No 317, updated May 2017.
3. Kannel, W et al. General Cardiovascular Risk Profile for Use in Primary Care. The Framingham Heart Study. American Heart Association. Circulation. 2008. Vol 117, No.6: 743-753.
4. Martini C, Pallottini V. Cholesterol: from feeding to gene regulation. Genes Nutr. 2007 Nov;2(2):181-93. Epub 2007 Sep 27.
5. Li XJ et al. The adhesion of putative probiotic lactobacilli to cultured epithelial cells and porcine intestinal mucus. J Appl Microbiol. 2008 Apr;104(4):1082-91.

6. Kishida T et al. The hypocholesterolemic effect of high amylose cornstarch in rats is mediated by an enlarged bile acid pool and increased fecal bile acid excretion, not by cecal fermented products. J Nutr. 2002 Sep;132(9):2519-24.
7. Lefebvre P, et al. Role of bile acids and bile acid receptors in metabolic regulation. Physiol Rev. 2009 Jan;89(1):147-91.
8. Fuentes, MC et al. Mediterranean Journal of Nutrition and Metabolism 2016; 9:125-135. <https://pubmed.ncbi.nlm.nih.gov/27995830/>



**celt naturals**

# STEROCHOL

## A POWERHOUSE FOR METABOLIC SYNDROME

Metabolic Syndrome is the medical term for a cluster or combination of at least three of the following: high blood pressure, abdominal obesity, high blood sugar, lack of exercise, high triglycerides and high LDL levels.

Sterochol, a new research based natural cardiovascular support. This unique and novel proprietary formulation is one of a kind. With years of research this new natural formula has now been approved by Health Canada as an effective adjunct to statin drug therapy.



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## MOST OF US COULD BENEFIT FROM KEEPING A CLOSER EYE ON OUR CHOLESTEROL

Thousands of research studies over the last 60 years have shown that the risk of developing heart attacks and strokes can be related to high levels of “bad cholesterol”. There are two types of cholesterol, LDL-low density lipoprotein, needed to transport most cholesterol around the body. In spite of its negative image, cholesterol in healthy levels is actually very important for normal health-we literally could not live without it. Only when it starts to become elevated does it pose a health issue.

HDL however, high density lipoproteins known as the “good cholesterol”, is actually a type of cholesterol your body makes to protect you. High Density Lipoproteins or HDL, carry away bad cholesterol in your arteries and the higher the HDL the less risk of heart attacks.

## PROBIOTICS-UNIQUE NOVEL THERAPY

Probiotics have been used to support gut health for a while, however, the research now shows that these seemingly unrelated areas of the body, the gut and heart are related. It may be difficult to imagine that, but what happens in our gut influences cholesterol levels, inflammation, and body weight, each of which contributes to a healthy heart.

In a search for better gut healing probiotics, scientists noticed that some probiotics may have the ability to reduce blood cholesterol levels. Thus, a search got underway to discover which strains of the active probiotics reduced LDL and triglycerides major contributors for heart disease.

The specific unique Lactobacillus Plantarum strains, whole cell extraction showed a remarkable reduction in LDL levels. The strains were isolated via screening process and showed a robust capability to survive under harsh gastrointestinal tract (GI) conditions, including exposures to acids and bile. In addition, the probiotic strains were demonstrated to adhere to intestinal epithelial cells. In terms of lipid metabolism and showed a particular ability to produce large amounts of bile salt hydrolase. Bile salts are responsible for recirculating cholesterol systemically. By hydrolyzing the bile-salt molecule, which contains

cholesterol, the re-uptake of cholesterol into the body was greatly reduced.

The reduction in ox-LDL by L. plantarum (Fuentes (2013) had not been found prior to this study and is important because elevated ox-LDL levels are a key factor in the development and progression of atherosclerosis (Parthasarathy et al. 2010). The probiotics alone produced a statistically significant change of TC, LDL and TG compared to baseline (all  $p < 0.0001$ ). Sterochol plus statin drugs produce greater changes from baseline, with 80% of the positive effect due to probiotic combination and the additional benefits due to statins being statistically significant ( $p < 0.01$ ).

Using genetic sequencing, the proprietary strains were identified as being part of the Lactobacillus plantarum species. The strains were shown not to have genes conveying antibacterial resistance; this is important as there is no interference to other undesirable bacteria and thereby reduce the overall effectiveness of antibiotics. Moreover, it has been shown that for every 1% reduction in serum cholesterol had an estimated reduction of 2-3% in the risk of coronary artery disease.

## CHANGE YOUR HEART HEALTH IN THREE MONTHS

Sterochol, an IP-protected and patent pending combination of clinically proven ingredients, probiotic strains, sterols, ashwagandha, provides the metabolism of cholesterol in the blood. This combination of natural ingredients can also enhance heart health by reducing inflammation and stabilizing triglycerides.



WHEN YOUR BODY DIGESTS PLANT STEROLS INSTEAD OF CHOLESTEROL, IT REMOVES SOME OF THE CHOLESTEROL AS WASTE. THIS RESULTS IN LOWER CHOLESTEROL LEVELS AND IMPROVED HEALTH.

## ASHWAGANDHA-MULTIPLE HEART AND STRESS BENEFITS

### STEROCHOL IS A UNIQUE INNOVATIVE PRODUCT DESIGNED WITH MULTIPLE MODES OF ACTION WITH YOUR HEART HEALTH IN MIND.

Research shows that ashwagandha plays an important role in heart health. Contributing significantly to reducing high LDL cholesterol levels, lowering triglycerides in the blood stream. It is part of the patented formula added to also support reduction of cortisol levels a hormone your body releases in response to stress. Mental stress adversely affects the circulatory system and cardiovascular health and impairs the body's antioxidant defense system. Managing chronic stress and anxiety are important factors in reducing heart problems. *Nutraceutical Res.* 2013;11(14) 151-158

Stress and anxiety increase Inflammatory cytokines which play an active part in heart disease by elevating CRP-C-reactive protein, IL-6 cytokines increased during times of stress.

Many of today's products have a hard time surviving the harsh conditions of the human gastrointestinal tract. Companies don't look at the survival of their products as they enter and exit the acidic area of the stomach. The stomach is an inhospitable environment. Human gastric juice is primarily composed of pepsin and hydrochloric acid, and that is why these nutrients must be able to withstand the acid conditions. It is critical that the sterols, probiotics and ashwagandha are enteric coated to allow the delicate nutrients to enter the small intestine. The strains of probiotics used in Sterochol are also capable of with-standing harsh acid environments, this allows the product to work effectively at supporting heart health.

## PLANT STEROLS-ADDED BENEFITS FOR HEART HEALTH

More than 200 clinical trial reports and several meta-analyses have demonstrated that plant sterols (PSs), natural components of plants, can also induce clinically relevant reductions in blood low-density lipoprotein cholesterol levels. Plant sterols have a key role in the synergistic combination of Sterochol. They too have biochemical effects and potential cardiovascular benefits in the dietary management of high LDL and triglycerides. A meta-analysis showed that regular intake of plant sterols significantly reduced LDL-c. (*Atherosclerosis* 2016 May;248:76-83) The addition of the sterols is a helpful adjunct therapy to cholesterol lowering pharmaceuticals. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1993991/>

Plant sterols have been shown to reduce LDL cholesterol, in people with high LDL cholesterol levels. In fact plant sterols in combination with statin therapy showed a greater reduction in LDL vs statins alone. (<https://pubmed.ncbi.nlm.nih.gov/20439548/>) The cell structure of phytosterols looks and acts like cholesterol, so it competes with cholesterol for absorption by your digestion system.

