

Dietary supplement crafted with natural ingredients to help manage unhealthy cholesterol levels and support overall heart health.



BAD CHOLESTEROL SOLUTION

PLANT STEROLS CONTRIBUTE TO MAINTAINING NORMAL BLOOD CHOLESTEROL LEVELS.



FOOD SUPPLEMENT 90 CAPSULES

NUTRICODE BAD CHOLESTEROL SOLUTION - Information Guide for Business Partners

In today's fast-paced world, prioritising heart health is more important than ever. High levels of low-density lipoprotein (LDL), or "bad" cholesterol, pose a significant threat to cardiovascular wellbeing. The Nutricode - Dr Tomasz Jeżewski, MD, PhD Signature Series, Bad Cholesterol Solution is a dietary supplement crafted with natural ingredients to help manage unhealthy cholesterol levels and support overall heart health. This guide provides essential information about the benefits, ingredients, and usage of this unique supplement, empowering you to take proactive steps towards a healthier heart every day.

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BAD CHOLESTEROL SOLUTION

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Why Choose Supplements to Manage Your Cholesterol?

• Heart Disease Prevention: Conditions linked to atherosclerosis, such as heart disease and stroke, are the leading causes of death globally, even more so than cancer.

• Safer Alternatives to Medications: Many prescription drugs used to lower cholesterol are highly potent and can cause side effects. Supplements offer a more natural and gentler approach.

• Addressing Patient Concerns: Many people worry about the potential risks of aggressively lowering cholesterol with medication. Supplements provide a balanced option for those seeking a more gradual approach.

• New Research Findings: Studies show that those who live the longest often have higher cholesterol levels than what is typically recommended by doctors. This raises the question: could lowering all cholesterol too much be harmful? Perhaps it's better to focus on reducing only the harmful types of cholesterol rather than lowering all cholesterol indiscriminately (Iso et al., 1989 and Kim et al., 2024).

What Makes Our Approach to Cholesterol Management Unique?

Bad Cholesterol Solution combines natural ingredients with modern science to provide a targeted approach to cholesterol management. Our unique formula includes:

- \cdot Fermented Rice Extract as a source of Monacolin K
- · Bergamot Extract
- · Baikal Skullcap Root Extract
- · Plant Sterols
- · Green Tea Leaf Extract
- · Grape Seed Extract

All ingredients were chosen for their proven benefits in reducing cholesterol and protecting heart health.

By choosing Bad Cholesterol Solution, you're opting for a natural, safe way to maintain healthy cholesterol levels. This supplement not only aims to protect your heart but also supports your overall health and wellbeing.

Why Focus on "Bad" Cholesterol, Not All Cholesterol?

Not all cholesterol is bad; your body needs some to function properly. The key is to reduce the "bad" cholesterol types that cause health problems, such as oxidised lipoproteins, glycated lipoproteins, and apolipoprotein B (apoB), while preserving the "good" cholesterol that supports your health.

Here's why focusing on bad cholesterol is better:

1. Preserves Good Cholesterol: Maintaining good cholesterol (HDL) helps remove harmful cholesterol from your bloodstream, protecting your heart.

2. Minimises Side Effects: Reducing all cholesterol can cause side effects like fatigue or hormonal imbalances. Targeting only the bad cholesterol reduces these risks.

3. More Effective Results: A focused approach ensures more precise and effective cholesterol management, reducing the risk of heart disease and related conditions.

With Bad Cholesterol Solution, you're choosing a smart, targeted strategy for cholesterol management that not only protects your heart but also enhances your overall health.

Three Key Mechanisms of Action

Bad Cholesterol Solution targets multiple pathways to address cholesterol issues and reduce the risk of cardiovascular events such as heart attacks, strokes, limb ischaemia, organ ischaemia, and cognitive decline, all linked to atherosclerosis. This comprehensive approach includes:

- 1. Moderate Cholesterol Synthesis Suppression
- 2. Oxidative and Metabolic Balance
- 3. Reduced Intestinal Cholesterol Absorption

These mechanisms work together to help prevent the degeneration of blood vessels, crucial for maintaining the proper transport of oxygen and nutrients throughout the body. When blood vessels are impaired, overall body function is compromised.

After highlighting the three key mechanisms of action, let's take a closer look at the scientific evidence behind the ingredients in Bad Cholesterol Solution and how they work to achieve these effects, all grounded in rigorous scientific research.

1. Moderate Cholesterol Synthesis Suppression

Monacolin K: How It Works

Monacolin K, found in red yeast rice, naturally inhibits HMG-CoA reductase, an enzyme crucial for cholesterol production in the liver. Unlike statins, which aggressively block this enzyme, Monacolin K offers a gentler approach, reducing the risk of side effects like muscle pain, liver damage, and digestive issues. This allows the body to maintain essential cholesterol levels for hormone production and cell membrane integrity.

Actions of Monacolin K

Monacolin K is chemically similar to lovastatin, a commonly used statin. It reduces cholesterol production in the liver, leading to lower LDL cholesterol levels. Being a naturally derived compound, it is associated with fewer side effects than synthetic statins, making it ideal for those who cannot tolerate synthetic drugs. Red yeast rice, containing Monacolin K, also has antioxidant properties that support cardiovascular health.

Research Supporting Monacolin K

Heber et al. (1999) showed that red yeast rice with Monacolin K effectively reduces cholesterol in clinical trials.
Becker et al. (2009) found that Monacolin K lowers LDL cholesterol with fewer side effects than standard statins in statin-intolerant patients.

• Heber (2001) reviewed the use of herbal preparations, including red yeast rice with Monacolin K, for managing high cholesterol, supporting its role as a natural alternative to synthetic statins.

Bergamot Extract: How It Works

Bergamot extract, from the citrus fruit Citrus bergamia, supports cardiovascular health by reducing cholesterol. Its active compounds, such as flavonoids, polyphenols, and glycosides, improve lipid metabolism, naturally

and glycosides, improve lipid metabolism, naturally lowering LDL cholesterol and raising HDL cholesterol. This balance minimises side effects while maintaining necessary cholesterol for bodily functions.

Actions of Bergamot Extract

1. Flavonoid-Rich Composition: Contains antioxidants and anti-inflammatory properties, reducing LDL cholesterol oxidation and preventing atherosclerosis.

2. Multi-Targeted Action: Lowers LDL cholesterol, raises HDL cholesterol, and reduces triglycerides, supporting overall cardiovascular health.

3. Natural and Safe: Well-tolerated with fewer side effects than pharmaceuticals, suitable for long-term management.

Research Supporting Bergamot Extract

• Mollace et al. (2011) found that Bergamot extract improved lipid profiles, lowering LDL and increasing HDL in humans, with additional anti-inflammatory benefits.

• Toth et al. (2016) demonstrated that Bergamot extract reduces small dense LDL particles, improving the overall lipid profile.

• Gliozzi et al. (2014) showed that Bergamot extract reduces total cholesterol and LDL levels while increasing HDL, providing cardiovascular protection.

2. Oxidative and Metabolic Balance

Skullcap Root Extract: How It Works

Scutellaria baicalensis (Skullcap root extract) is valued for its cardiovascular benefits. Active compounds like baicalin, baicalein, and wogonin provide anti-inflammatory, anticoagulant, and lipid-lowering effects, along with blood pressure regulation through eNOS activation.

Actions of Bergamot Extract

1. Anti-Inflammatory Effects: Offers anti-inflammatory benefits similar to NSAIDs and steroids without their side effects (Li-Weber, 2009; Kim et al., 2009).

2. Adaptogenic Effect: Helps manage stress and anxiety, reducing cholesterol and atherosclerosis risk (Huang et al., 2006; Wong et al., 2013).

3. Antimicrobial Properties: Has antibacterial, antiviral, and antifungal effects, preventing infections that can worsen atherosclerosis (Liao et al., 2011; Zhao et al., 2014).

4. Telomere Protection: Protects telomeres by reducing oxidative stress, potentially slowing ageing (Wang et al., 2015).

5. Liver Protection and Bile Secretion: Protects the liver from toxins and inflammation, aiding digestion and detoxification (Kim et al., 2012).

6. AMPK Activation and Fat Burning: Activates AMPK to regulate energy metabolism, promoting fat burning and improving insulin sensitivity (Wu et al., 2013).

7. Antiplatelet and Anticoagulant Effects: Reduces platelet aggregation, improving blood flow and cardio-vascular function (Li et al., 2009; Lee et al., 2014; Kim et al., 2012).

8. Lowers Cholesterol and Triglycerides: Regulates lipid metabolism, reducing cholesterol and triglycerides (Liu et al., 2008; Zhou et al., 2012).

9. eNOS Activation - Lowers Blood Pressure: Increases nitric oxide production to relax blood vessels and lower blood pressure (Chen et al., 2015; Wong et al., 2018).

Grape Seed Extract (GSE)

GSE is rich in polyphenols, particularly oligomeric proanthocyanidins (OPCs), known for antioxidant and anti-inflammatory properties. It supports cardiovascular health by reducing oxidative stress, lowering cholesterol, and regulating blood pressure.

Benefits of Grape Seed Extract

1. Reduces Oxidative Stress and Inflammation: Neutralises free radicals, reducing oxidative stress and inflammation (Bagchi et al., 2004; Basu et al., 2010).

2. Reduces Oxidation of LDL Cholesterol: Prevents LDL cholesterol oxidation, reducing the risk of atherosclerosis (Sano et al., 2007; Kar et al., 2009).

3. Lowers Cholesterol: Inhibits cholesterol absorption in the intestines, improving lipid profiles (Zern et al., 2005; Clifton, 2004).

4. Lowers Blood Pressure: Promotes vasodilation and improves endothelial function, lowering blood pressure (Feringa et al., 2011; Sivaprakasapillai et al., 2009).

5. Well-Tolerated: Safe for long-term use, with minimal side effects (Reynaud et al., 2010; Yamakoshi et al., 2002).

Green Tea Extract: How It Works

Green Tea Extract (GTE) is rich in catechins like epigallocatechin gallate (EGCG), which have strong antioxidant and anti-inflammatory effects. GTE supports cardiovascular health by reducing oxidative stress and inflammation, lowering LDL cholesterol, and regulating bile acid metabolism.

Research Supporting Green Tea Extract

1. Reduces Oxidative Stress and Inflammation: Contains catechins that reduce oxidative stress and modulate inflammatory pathways (Sen et al., 2000; Basu et al., 2013).

2. Reduces Oxidation of LDL Cholesterol: Catechins prevent LDL cholesterol oxidation, crucial for cardio-vascular health (Erba et al., 2005; Hodgson and Croft, 2010).

3. Bile Acid Regulation: Modulates bile acid metabolism, improving lipid and cholesterol management (Ishikawa et al., 2005; Kuriyama, 2008).

4. Lowers LDL Cholesterol: Reduces LDL cholesterol absorption and enhances excretion (Maron et al., 2003; Nagao et al., 2007).

5. Generally Well-Tolerated: Safe for long-term use with minimal side effects (Chacko et al., 2010; Bonani et al., 2014).

3. Reduced Intestinal Cholesterol Absorption

Plant Sterols: How They Work

Plant sterols, or phytosterols, are compounds found in plant-based foods structurally similar to cholesterol. They lower LDL cholesterol by blocking cholesterol absorption in the intestines and offer cardiovascular benefits by reducing inflammation and supporting bile acid regulation.

Benefits of Plant Sterols

1. Reduction of LDL Cholesterol: Compete with dietary cholesterol for absorption, lowering cholesterol levels entering the bloodstream (Yalcinkaya et al., 2023).

2. Anti-Inflammatory Effects: Modulate immune responses, reducing inflammation and atherosclerosis risk (Yalcinkaya et al., 2023).

3. Bile Acid Regulation: Promote cholesterol excretion in bile, aiding lipid metabolism (Miszczuk et al., 2024).

4. General Tolerability and Safety: Suitable for long-term use with minimal side effects (Miszczuk et al., 2024).

Bad Cholesterol Solution combines these ingredients in a scientifically proven formula to target multiple pathways for effective cholesterol management and cardiovascular health.

Who Should Take Bad Cholesterol Solution?

1. Individuals with High Cholesterol: Those with cholesterol levels above 240 mg/dL, elevated Lp(a), elevated apoB, or oxidised LDL levels are at an increased risk of cardiovascular diseases, including heart attacks and strokes. Bad Cholesterol Solution can help lower LDL cholesterol levels naturally, reducing their risk.

2. Patients with a History of Cardiovascular Conditions: Those with arterial hypertension, post-heart attack or stroke, atherosclerotic peripheral artery disease, or recognised atherosclerosis (e.g., plaques detected in Doppler echo or calcified arteries in calcium scans).

3. Family History of Early Atherosclerosis: Individuals with a family history of heart attacks, strokes, or peripheral artery disease often seek natural ways to manage cholesterol levels and prevent the onset of cardiovascular conditions.

4. Adults Aged 40 and Above: As people age, cholesterol levels tend to rise. This demographic is often more health-conscious and interested in maintaining heart health through dietary supplements like Bad Cholesterol Solution.

5. Statin-Intolerant Individuals: People who have experienced side effects from statin medications and are seeking a natural alternative to manage their cholesterol levels. Bad Cholesterol Solution offers a natural, gentler approach to lowering cholesterol, which can be particularly beneficial for those who cannot tolerate statins.

6. Health-Conscious Individuals Seeking Preventative Care: Health-conscious consumers who are proactive about preventing health issues before they arise, including those who prioritise natural and holistic health solutions.

7. People with Metabolic Syndrome or Related Conditions: Individuals with obesity (BMI >30) or those with BMI >25 who have been diagnosed with metabolic syndrome, diabetes, insulin resistance, or inflammatory diseases (e.g., rheumatoid arthritis, autoimmune conditions, chronic kidney problems). Managing cholesterol is a critical component of treating these conditions, and Bad Cholesterol Solution provides a natural means of supporting this aspect of their health.

8. Individuals Focused on Long-Term Health and Wellness: Adults committed to long-term health and wellness, including those who follow a healthy diet and exercise routine and are looking to enhance their efforts with natural supplements. Bad Cholesterol Solution can complement a healthy lifestyle, providing additional

support for maintaining healthy cholesterol levels and protecting heart health over time.

Safety & Interactions

This supplement is not recommended for pregnant or breastfeeding women, children under 18, or adults over 70. If you are allergic or sensitive to any of the ingredients, do not use this product. If you have any health concerns, please consult your doctor before use. Avoid taking this supplement with other cholesterol-lowering medications unless advised by your doctor. Do not use it if you are already taking products that contain fermented red rice. This supplement is intended for those who want to lower their cholesterol levels and should be used as part of a balanced diet that includes plenty of fruits and vegetables.

Do not consume more than 3g of plant sterols per day. The daily portion contains 1.2 mg of (-)-epigallocatechin 3-gallate. If you are also taking other products that contain green tea, do not use this supplement on the same day. It is best to take this supplement with food; do not take it on an empty stomach.

Active ingredients

Active Ingredients	In One Capsule	Daily Portion (3 Capsules)
Fermented rice extract of which Monacolin K	32.2 mg(**) 0.96 mg(**)	96.6 mg(**) 2.9 mg(**)
Bergamot extract	166.66 mg(**)	500 mg(**)
Extract of <i>Baikal</i> skullcap root	26.66 mg(**)	80 mg(**)
Plant sterols	95 mg(**)	285 mg(**)
Green tea leaf extract	10.03 mg(**)	30.9 mg(**)
Grape seed extract	83.33 mg(**)	250 mg(**)

-** Reference intake value has not been established.

Full list of ingredients

plant sterols (35g per 100g of product), bergamot extract, hydroxypropyl methylcellulose (capsule shell), grape seed extract, fermented red rice extract standardised to 3% monacolin K, Baikal skullcap root extract, green tea leaf extract, anti-caking agent: magnesium stearate.

Directions

Take 3 capsules daily with a glass of water and a meal. The recommended daily intake should not be exceeded.

Storage conditions

Store in a tightly closed container in a dry place, out of direct sunlight. Store below 25°C. Keep out of reach of young children.

Frequently Asked Questions

1. What are the main interactions of Monacolin K with medications?

Monacolin K can interact with several medications, including:

• **Statins:** Increases the risk of muscle pain and liver damage.

• CYP3A4 inhibitors (e.g., certain antifungals and antibiotics): Can raise blood levels of Monacolin K, increasing toxicity.

• Anticoagulants (e.g., Warfarin): May enhance bleeding risk.

• Grapefruit juice: Can increase Monacolin K levels, leading to side effects.

• Fibrates and Niacin: Increased risk of muscle-related side effects.

Always consult with a healthcare provider before combining Monacolin K with any medications.

2. Can I consume grapefruit juice if I am taking supplements like Monacolin K or Bergamot Extract?

No, grapefruit juice should be avoided while taking Monacolin K or Bergamot Extract. Grapefruit juice can inhibit the enzyme CYP3A4, increasing the levels of these supplements in the bloodstream and raising the risk of side effects.

3. Are there any risks associated with taking Bergamot Extract?

Yes, there are several considerations when taking Bergamot Extract:

• **Potential drug interactions:** It can interact with CYP3A4 substrates, anticoagulants, antiplatelet drugs, hypoglycaemic agents, and statins.

• **Photosensitivity:** It may increase sensitivity to sunlight, leading to skin irritation or burns.

• **Blood pressure:** It may lower blood pressure, which could be problematic for those with already low blood pressure.

• Liver conditions: Caution is advised for individuals with pre-existing liver conditions.

4. How might Green Tea Extract affect medications?

Green Tea Extract can interact with several medications: • Anticoagulants and antiplatelet drugs: May affect their efficacy, increasing the risk of bleeding or clot formation.

• Stimulants and caffeine-containing drugs: May enhance stimulant effects.

• Beta-blockers: Could reduce their effectiveness.

· Iron supplements: May decrease iron absorption.

• Chemotherapy agents: Could interfere with treatment efficacy.

People taking these medications should consult their healthcare provider before using Green Tea Extract.

5. What precautions should I take if I'm using Grape Seed Extract (GSE)?

When using GSE, consider the following:

• **Bleeding risk:** GSE can increase bleeding risk, especially when combined with anticoagulants or NSAIDs.

• **Blood pressure:** It may lower blood pressure, potentially leading to hypotension.

• **Potential interactions with chemotherapy drugs:** May affect the efficacy of some treatments.

• **Surgery:** Discontinue use at least two weeks before surgery to reduce bleeding risks.

6. Can Plant Sterols be taken with cholesterol-lowering medications?

Plant Sterols can be taken with cholesterol-lowering medications like statins, but there is a risk of additive effects, which may increase the risk of side effects such as muscle pain and elevated liver enzymes. Always use under medical supervision to monitor for any adverse effects.

7. What should individuals with liver or kidney disease consider when taking these supplements?

Individuals with liver or kidney disease should exercise caution when taking supplements like Monacolin K, Bergamot Extract, Green Tea Extract, and Plant Sterols, as these may affect liver or kidney function or exacerbate existing conditions. Regular monitoring by a healthcare provider is recommended.

8. Can supplements like Skullcap Root Extract affect my medications?

Yes, Skullcap Root Extract can interact with sedatives, CNS depressants, anticoagulants, antiplatelet drugs, and medications metabolised by CYP450 enzymes. It may enhance sedative effects or alter the effectiveness and toxicity of other drugs. Always consult a healthcare provider before combining Skullcap with other medications.

9. How Long Should I Take a Bad Cholesterol Solution?

The duration for taking a cholesterol-lowering solution depends on individual health needs, cholesterol levels, and risk factors. Some may require lifelong treatment, while others might only need it temporarily, particularly if they achieve and maintain a healthier lifestyle through diet, exercise, and weight management. Always consult your healthcare provider to determine the appropriate length of therapy based on your specific health profile and regular monitoring results.

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