NeoVasc

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Clinical Applications

- Support Healthy Serum Lipid Levels (including HDL, LDL, Lipo(a), and Triglycerides)
- Support Regression of Carotid Intima-Media Thickness (CIMT)

Nearly every panel of experts, including the National Cholesterol Education Panel (NCEP), considers niacin "first-line therapy" for consistently supporting the ENTIRE array of blood lipids related to cardiovascular health. The proprietary wax-coated technology used for NutriMedical's Sustained-Release Niacin supports healthy lipid levels equally as well as the instant-release forms, and does so with dramatically less flushing, improving compliance.

All NutriMedical Formulas Meet or Exceed cGMP Quality Standards

Discussion

The benefits of niacin (vitamin B3) were introduced in the June, 1956 issue of Mayo Clinic Proceedings.[1] More than 20 years later, the Framingham Heart Study indicated that niacin reduced triglycerides and LDL and increased HDL. Ten years later, the study labeled niacin "Front Line" treatment.[2] In 1988, the NCEP designated niacin "First Line Therapy" in the treatment of hyperlipidemias.[3]

Several modes of action have been proposed for niacin: 1) In the liver, niacin decreases production of VLDL, which converts to LDL and triglycerides. 2) Niacin reduces triglycerides by inhibiting the release of free fatty acids from adipocytes. 3) Niacin inhibits synthesis of apo B, which is needed to produce VLDL. 4) Niacin induces lipoprotein lipase, which enhances VLDL breakdown. 5) Niacin maintains the structure and function of HDL by reducing the amount of apo A-1 broken down from HDL during hepatic processing, while preserving the ability of apo A-1 to augment cholesterol reverse transport.[4] 6) Niacin, when used with resins, stimulates bile flow, which may suppress cholesterol synthesis.[5]

Since the late 1970's, studies and clinical trials lasting from four weeks to five years with daily doses of extended–release niacin up to 3000mg, have consistently demonstrated niacin's efficacy and safety.[6] In 2004, the ARBITER 6-HALTS Trial concluded that the progression of atherosclerosis among individuals with known coronary heart disease and moderately low HDL-C could be slowed by adding extended-release niacin to statin therapy.[7] Final results of this trial, published in 2010, demonstrated that niacin induces regression of carotid intima-media thickness (CIMT) to a greater extent than a pharmaceutical agent.[8]

So why isn't niacin more widely used? The two common concerns are (harmless) cutaneous flushing, which may last from 10 to 15 minutes (rarely, but possibly, up to two hours) and increases in liver enzymes, signaling potential hepatotoxicity. The first concern can be dramatically reduced with sustained–released niacin, such as NeoVasc. The second concern came about as the result of McKenney's study, published in 1994 in the JAMA, in which subjects, regardless of the decline in their lipids with lower doses, continued to receive up to 3000mg/day of niacin.[9] McKenney retracted his earlier warnings about the harmful effects of niacin in April, 2004 and publicly supported its unique benefits.[10]

Special Considerations & Potential Side-Effects

Individuals with either pre-existing liver disease, gout, peptic ulcer, or bleeding disorder require close monitoring, especially at higher doses. Liver enzymes may increase when initiating niacin therapy, especially in amounts greater than 1000mg/day. The levels generally do not enter an unhealthy range. It is prudent to perform a liver profile every 2-3 months for the first year; then annually, if levels have been healthy. Enzyme levels return to normal promptly after cessation of niacin.[10] Although poor glycemic control in Type 2 diabetes has been demonstrated with the use of crystalline nicotinic acid, studies using 1000–2000mg of sustained-release niacin suggested these doses have minimal impact upon insulin sensitivity.[11] Uric acid levels should also be monitored, especially in patients with a history of gout. Combining NeoVasc with aspirin increases the likelihood of hyperuricemia.[12] Monitor homocysteine periodically. Consider supporting with NutriMedical's Methyl Support™[13] Check a reference for the possibility of drug interactions.

Notes:

NiaVasc should not be confused with "No-Flush" niacin, which is inositol hexanicotinate (IHN), a supplement that does not contain any free niacin and has not been shown to be efficacious in hyperlipidemias. Adherence to the regimen of this special wax-coated form of niacin ranged from 88-97% throughout four human clinical trials. Flushing, itching, tingling, and upper gastrointestinal side-effects were minimal, but increased when dosing was increased to 2000mg/day.[14]

NeoVasc

Supplement Facts

Serving Size: 1 Tablet
Servings Per Container: 60

	Amount Per Serving	%Daily Value
Niacin (nicotinic acid)	750 mg	3750%

** Daily Value not established.

Other Ingredients: Vegetable stearine, carnauba wax, magnesium stearate, silica.

NeoVasc 750 Directions

Take one tablet with a meal one to two times daily or as directed by your healthcare practitioner.

References

1. Parsons WB Jr, et al. Changes in concentration of blood lipids following prolonged administration of large doses of nicotinic acid to persons with hypercholesterolemia: preliminary observations. *Mayo Clin Proc*. 1956 Jun 27;31(13):377-90. [PMID: 13336128]
2. Kannel WB. Recent findings from the Framingham study--I. *Med Times*. 1978 Apr;106(4):23-7. [PMID: 642745]
3. Hulley SB . The US National Cholesterol Education Program. Adult treatment guidelines. *Drugs*. 1988;36 Suppl 3:100-4. [PMID: 3254822]
4. Morgan, JM, et al. The Effects of Niacin on Lipoprotein Subclass Distribution. 2004 Le Jacq Communications, Inc. 2005 Jan 19 http://www.medscape.com/viewarticle/494342 {accessed 8.19.10}
5. Holland RE, et al. of niacin on biliary lipid output in the rat. *Biochem Pharmacol*. 1993 Jan 7;45(1):43-9. [PMID: 8424822]
6. Niacin. http://www.naturalstandard.com/naturalstandard/monographs/monoframeset.asp?monograph=/monographs/herbssupplements/aux2-niacin.asp&patientVersion=/monographs/herbssupplements/patient-niacin. {accessed 19 Aug 2010}
7. Taylor AJ, et al. Biology for the Investigation of the Treatment Effects of Reducing Cholesterol (ARBITER) 2: a double-blind, placebo-controlled study of extended-release niacin on atherosclerosis progression in secondary prevention patients treated with statins. *Circulation*. 2004 Dec 7;110(23):3512-7. [PMID: 15537681]
8. Villines TC., et al. The ARBITER 6-HALTS Trial (Arterial Biology for the Investigation of the Treatment Effects of Reducing Cholesterol 6-HDL and LDL Treatment Strategies in Atherosclerosis): final results and the impact of medication adherence, dose, and treatment duration. *J Am Coll Cardiol*. 2010 Jun 15;55(24):2721-67. [PMID: 20399059]
9. McKenney JM. A comparison of the efficacy and toxic effects of sustained- vs immediate-release niacin in hypercholesterolemic patients. *JAMA*. 1994 Mar 2;271(9):672-7. [PMID: 8309029]
10. McKenney JM. Pharmacologic options for aggressive low-density lipoprotein cholesterol lowering: benefits versus risks. *Am J Cardiol*.2005 Aug 22;96(4A):60E-66E. Review. [PMID: 16098846]
11. Influence of extended-release nicotinic acid on nonesterified fatty acid flux in the metabolic syndrome with atherogenic dyslipidemia. *Am J Cardiol*. 2005 Jun 1;95(11):1309-13. [PMID: 15904634]
12. Garg A, Grundy SM. acid as therapy for dyslipidemia in non-insulin-dependent diabetes mellitus. *JAMA*. 1990 Aug 8;264(6):723-6. [PMID: 2374275]
13. Garg R, et al. treatment increases plasma homocyst(e)ine levels. *Am Heart J*. 1999 Dec;138(6 Pt 1):1082-7 [PMID: 10577438]
14. Rountree R. Time-released Niacin presentation. Orlando, FL Dec. 2006
15. Cefali EA, reduces cutaneous flushing after administration of an optimized extended-release niacin formulation. *Int J Clin Pharmacol Ther*. 2007 Feb;45(2):78-88 [PMID: 17323787]
16. McCormack PL, Keating GM. Prolonged-release nicotinic acid: a review of its use in the treatment of dyslipidaemia. *Drugs*.2005;65(18):2719-40. [PMID: 16392885]

Cautions

Consult your healthcare practitioner prior to use. Keep out of reach of children.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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