

The Natural Pharmacy Newsletter

Wellspring Custom Pharmacy

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In The News

Giving Your Body a Healthy Head Start in 2010

At the start of a new year, many people pledge to be healthier than they were the year before. While eating better is an excellent start, we must not forget the damage we have already done with our previous unhealthy choices. By filling our body with less than ideal substances, we require more work from our various body systems, especially the liver. The liver has many functions with one important one being to act as a filter for the blood. Therefore, the liver not only metabolizes and detoxifies what we eat, but also everything that we are exposed to in the environment. This includes things such as pollution, drugs, heavy metals and nicotine to name a few. Also, stress and trauma can release toxins in the body that the liver must then filter.



The liver exerts its effects through two phases of reactions. The purpose of phase 1 reactions is to prepare the substances for phase 2 by converting fat-soluble substances that the body accumulates into a more water-soluble version. It is important to note that although

phase 1 reactions are working to detoxify substances, phase 1 leaves the substances more reactive than when they entered the liver. Obviously, this makes phase 2 reactions very important! Phase 1 intermediates cause problems when they accumulate. Accumulation occurs when phase 2 enzymes are decreased or phase 1 enzymes are increased. Therefore, it is important to maintain proper nutrient levels to insure that our enzymes are working. Nutrients that are needed for phase 1 reactions include: B vitamins (B2, B3, B6, and B12), folic acid, glutathione and flavonoids. Nutrients that are needed for phase 2 reactions include glutathione, folic acid and vitamin B12 (as in phase 1 reactions), plus Vitamin B5, methionine, cysteine, magnesium, vitamin C, glycine, taurine, glutamine, and choline. Other nutrients that are part of the detoxification process in the liver include: Vitamin A, Vitamin E, zinc, copper, molybdenum, and selenium. Each of these nutrients serves numerous purposes that contribute to the overall well being of the liver and insure its ability to function properly. However, many of us require supplementation to achieve the proper balance of these substances.

The best way to “jump start” the liver’s detoxification pathways is to use supplements to ensure the organ is functioning optimally. Substances one should look for when selecting a product for liver detoxification include: silymarin (milk thistle),

scutellaria baicalensis, cynara scolymus (artichoke), vitamin C, n-acetyl-cysteine, lipoic acid, burdock, red clover, lycium, cleavers, culvers root, and glutathione. Studies have shown that these substances support and possibly even enhance liver function. Many of them work as antioxidants and protect the liver. Glutathione is especially important because it is a primary participant in phase 2 reactions and is successful at decreasing the reactivity of many substances. When glutathione combines with a toxin it becomes water soluble and can be eliminated from the body. See below for further explanation of how these natural substances can benefit your liver:

Supplement	Benefits
Silymarin (milk thistle)	Protects the liver, increases glutathione levels, regenerates liver tissue, and supports numerous Phase 2 enzymes
Scutellaria baicalensis	Antioxidant, increases delivery of toxins to the liver, and protects the liver
Cynara Scolymus (artichoke)	Antioxidant, protects the liver, and maintains glutathione levels
Vitamin C	Antioxidant and optimizes liver function
N-acetyl-cysteine	Antioxidant, optimizes liver function, and increases glutathione levels
Lipoic Acid	Antioxidant and optimizes liver function
Burdock	Diuretic and blood purifier
Red Clover	Antispasmodic and expectorant effects
Lycium (Goji Berry)	Strengthens the liver, rich in vitamin A, C, E and flavanoids,
Cleavers	Purifies blood by acting as a diuretic
Culvers Root	Increases liver functions
Glutathione	See previous paragraph

A final piece of the “detoxification puzzle” is fiber because it further increases the removal of toxins from the body. Fiber regulates bowel transit time and ensures a normal frequency of bowel movements. Fiber prevents toxins from staying in the body and being reabsorbed.

Here at Wellspring Custom Pharmacy we offer a complete selection of detoxification products. We would be happy to answer any questions you might have about these supplements.

References:

1. Pillars of G.I. Health: Physician Road Map (1st edition). “Toxic Burden”
2. Zabriskie, Nieske ND. “Detoxification: Cleansing the Body at an Important Time of Year”. Vitamin Research News. 2009 Dec. 23(12) pages 1,8, and 12.
3. Olivier, Rachel MS, ND, PhD. “A Nutritional Regimen Designed to Offer Constancy to Liver Detoxification Pathways”. The Original Internist. 2009 March.

What is Metabolic Syndrome?

Metabolic syndrome is defined as insulin resistance coupled with cardiovascular risk factors. These risk factors include the following: high levels of insulin in the blood, hypertension, abdominal obesity, unbalance of lipids in the blood, and blood clotting abnormalities. If a patient has three of these conditions they are considered to have metabolic syndrome. 30-40% of Americans are suspected to suffer from metabolic syndrome.

The best place to start when treating metabolic syndrome is by improving ones diet and exercise. The most important focus of a diet to help with metabolic syndrome is balance between fats, carbohydrates, and protein. An ideal exercise plan includes 30 minutes of exercise 5 times per week. It may also be beneficial to make sure that hormones such as estrogen, progesterone, testosterone, etc are in balance as their deficiencies can lead to the symptoms of metabolic syndrome.

This article is only intended to shine light on metabolic syndrome. Obviously much could be written about proper diet, exercise, and hormone balance and we would be happy to entertain any questions you have on these subjects.

References:

1. Triplitt Curtis L, Reasner Charles A, Isley William L, "Chapter 77. Diabetes Mellitus" (Chapter). Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey: Pharmacotherapy: A Pathophysiologic Approach, 7e: <http://0-www.accesspharmacy.com.polar.onu.edu/content.aspx?aID=3207048>.