

Synergy and bioavailability: two important aspects of a successful weight loss program.

LeanGard® formula benefits from synergy of four botanical compounds: hydroxycitric acid (HCA), garcinol (both compounds extracted from rinds of *Garcinia gambogia*), diterpene forskolin (*Coleus forskohlii* root extract) and alkaloid piperine (*Piper nigrum* fruits extract).

The potential of HCA, a compound derived from rind of Garcinia gambogia fruit, as a weight lowering compound has been recognized since the 1970's. However, clinical studies conducted with this compound provided contradictory results, most likely due to HCA being poorly absorbed and bioavailable inside of the body fat producing cells to inhibit the target enzyme, citrate lyase. This critical issue of the HCA absorption and bioavailability in a weigh management has been addressed in LeanGard by combining HCA with garcinol (polyisoprenylated benzophenone). Garcinol, like HCA, is isolated from Garcinia sp. fruit rind, and has been studied for its anti-inflammatory anti-oxidant, cancer preventive properties. Garcinol also increases levels of liver detox enzymes, like glutathione S-transferase or quinone reductase activities, which helps normalize metabolism and remove metabolic toxins that hamper weight management benefits.

LeanGard biological mechanism further benefits from addition of diterpene froskolin, a compound derived from roots of Coleus forskohlii plant, which uniquely regulates body composition by enhancing adenylate cyclase and cAMP cellular levels, increasing lean body mass and decreasing content of body fat. Increased lean body mass up-regulates body metabolism and helps mitigate body weight gain, as well as maintaining the accomplished weight reduction in the long-run, i.e. prevention of so-called yo-yo effect.

It has been recognized recently that diminished lean body mass slows down body metabolism and results in difficulties in maintaining an appropriate and healthy body composition and weight.

Thus, synergistic components of Lean-Gard provide a sensible weight management approach to reduce body weight to acceptable levels by restoring the optimal proportions of fat to lean body mass. By maintaining or increasing lean body mass while simultaneously reducing body fat, the weight loss regimen would serve the general purpose of improving the overall health of the individual. Lean body mass can simply be described as total body weight minus fat and it is inversely correlated with morbidity and mortality rates.

LeanGard formula has an additional mechanism to secure gastrointestinal absorption and ultimately bioavailability of all above discussed ingredients by including in its composition 5mg of 95% pure alkaloid piperine. Piperine, a pungent compound extracted from black pepper fruits is known to assist absorption of variety of nutrients and also to improve diminished nutrient absorption which typically occurs with aging. In fact,

the efficacy of many weight-loss nutriceuticals is known to be diminished in middle-aged and elderly population.

The therapeutic effects of the individual components of LeanGard evaluated in the preclinical and human studies include a reduction in total body weight and body mass index, a reduction in body fat, an increase in lean body mass and content of body water, and a reduction in perceived appetite level while increasing energy levels. The unique combination of LeanGrad ingredients results in enhancement of the biological activity of the weight loss components and also in the antioxidant and anti-inflammatory properties of garcinol.

LeanGard is a total formula for securing your health.

LeanGard is a combination of these patented ingredients:



