

LipoGin and Fat

In recent years, obesity in developed nations has reached epidemic proportions. Obesity has increased across all age groups, educational levels and ethnic groups. Abdominal, or central, obesity is at an all-time high. Abdominal obesity is of particular concern because it is linked to metabolic syndrome, a condition where blood lipids, blood glucose and blood pressure are poorly controlled. Persons with metabolic syndrome are at greatly increased risk for more serious conditions such as coronary artery disease, heart attack, diabetes and stroke. In the U.S., metabolic syndrome is defined as abdominal obesity, (waist circumference greater than 40 inches in men and 35 inches in women), together with two or more of the following risk factors: serum triglycerides 150 mg/dl or above; HDL cholesterol 40mg/dl or lower in men and 50mg/dl or lower in women, blood pressure of 130/85 or more and fasting blood glucose of 110 mg/dl or above. In industrialized countries, 20-30 percent of the middle-aged population exhibits metabolic syndrome; in the United States alone over 50 million people are affected by these metabolic risk factors.

Even though central obesity is an essential component of metabolic syndrome, that's not the whole story. Abdominal fat is actually comprised of two metabolically distinct fat compartments. The fat that accumulates under the skin is called subcutaneous fat. Unlikely as it may be, this type of fat is relatively benign. The real perpetrator is dense *visceral fat* found deep in the abdomen, surrounding the intra-abdominal organs. Visceral fat is of particular concern because elevated levels of visceral fat are actually a cause of metabolic syndrome. Visceral fat cells are not just sedentary storage cells. They release inflammatory cytokines such as C-reactive protein (CRP) and Interleukin (IL)-6, which contribute to chronic systemic inflammation. Visceral fat also produces angiotensin, a chemical messenger that can elevate blood pressure by causing the constriction of blood vessels. Excess visceral fat is a significant factor in the development of metabolic syndrome. Even modest increases in visceral fat result in measurable endothelial dysfunction. Maintaining optimal body weight is therefore crucial to preventing the progression of metabolic syndrome. Aging, excessive calorie intake and sedentary lifestyle all contribute to weight gain and visceral fat accumulation. One of the favorable results of caloric restriction is the reduction of visceral fat. The good news is that even modest reductions in visceral fat can help reverse its adverse effects.

LipoGin™

LipoGin is an exciting new supplement that has demonstrated, in both animal and human published studies, the ability to inhibit the formation of body fat—especially visceral fat. Patent-pending LipoGin contains a proprietary lipid-soluble extract of *Glycyrrhiza glabra* L root, standardized for bioactive polyphenol flavonoid compounds and the unique flavonoid glabridin. LipoGin has been shown in clinical trials to reduce body weight, waist circumference and abdominal fat, and to help control blood glucose.

Nutrigenomic testing, animal studies and human clinical trials have demonstrated that LipoGin is able to suppress visceral fat, thereby helping to eliminate a significant cause of metabolic syndrome. LipoGin down-regulates the body's fat-forming processes and up-regulates the activity of fat burning enzymes. LipoGin reduces the weight gain produced by a high-fat diet and helps to control blood glucose.

Patent-pending LipoGin contains a proprietary lipid-soluble extract of licorice (*Glycyrrhiza glabra* L) root, standardized for bioactive polyphenol flavonoid compounds and the unique flavonoid glabridin. Human randomized, double-blind, placebo-controlled studies with LipoGin¹⁻² resulted in:

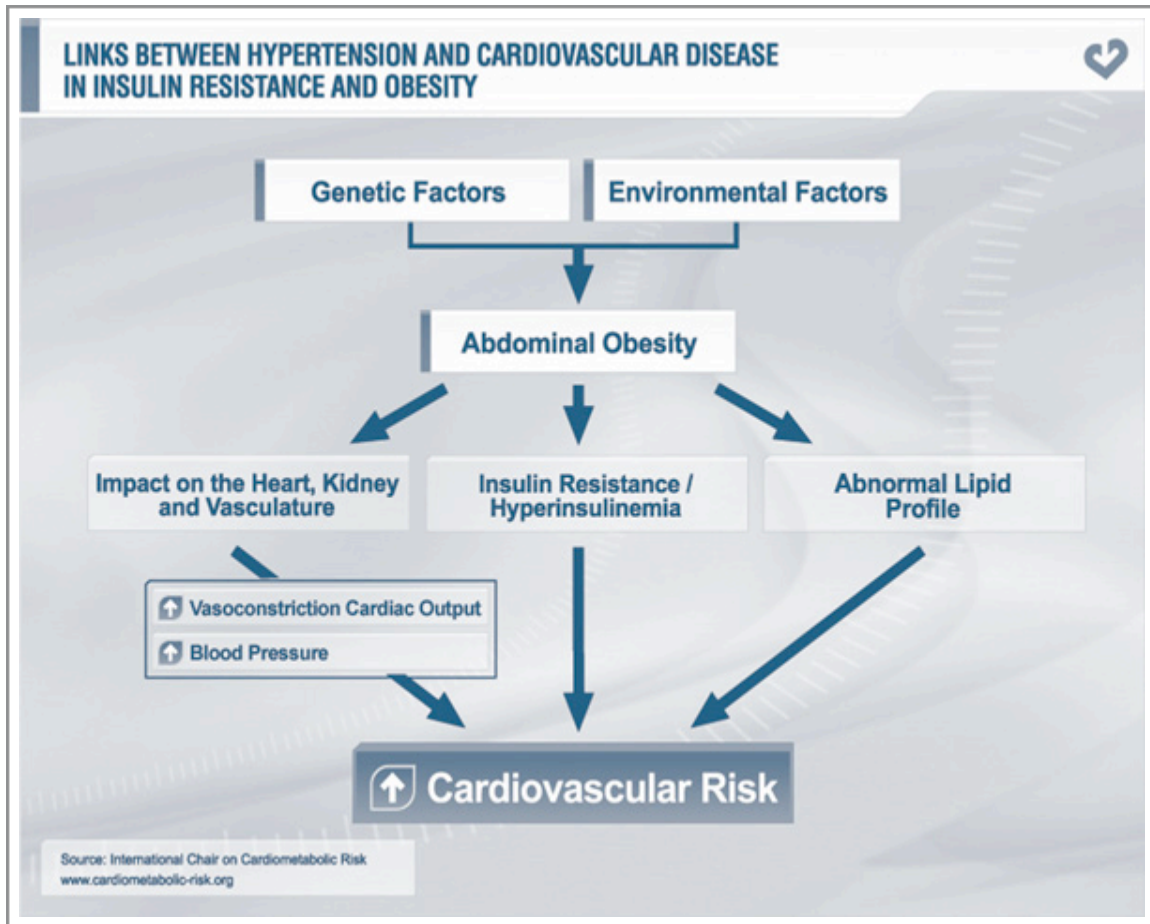
- Body and abdominal fat lowering effect in human subjects.
- Suppression of body weight gain in human subjects.
- Abdominal fat lowering effect in human subjects.

*Recently published (animal) studies demonstrate:*³⁻⁴

- Suppression of abdominal fat accumulation and the suppression of an increase in blood glucose levels in obese diabetic KK-Ay mice.
- Suppression of abdominal fat accumulation and the suppression of body weight gain in high-fat diet-induced obese C57BL/6J mice.

LipoGin is the first natural product of its kind that actually helps prevent or suppress the onset of metabolic syndrome.

Previously reported studies indicate the active ingredient in LipoGin also provides antioxidative protection, hypocholesterolemic activity, suppression of *Helicobacter pylori* (*H. pylori*), kidney protective and radical scavenging activities, and also inhibits serotonin reuptake.



Safety and Dosage

The root of the leguminous *Glycyrrhiza* plant, has been consumed for over 4,000 years since the era of ancient Egypt. It is among the botanicals most frequently employed in foods and traditional medicines in both Eastern and Western countries.

To confirm the safety of LipoGin, a series of non-clinical studies as well as clinical studies were conducted. The results of these studies support the excellent safety profile of LipoGin. The active ingredient in LipoGin has been accepted by the FDA as an approved new dietary ingredient. The recommended daily dose is 300 mg, taken once per day at the evening meal.

Conclusion

Experts estimate that during the course of a typical holiday season, the average American may gain between four to seven pounds. LipoGin is not a conventional weight-loss remedy or quick-loss diet pill that promises massive weight loss in a short period of time. It provides a more realistically achievable and effective health improvement goal. Optimizing healthy visceral fat may result in the loss of only about 5 to 10 percent overall in weight but may have a more direct and significant health benefit.

LipoGin is the result of over a decade of development, using advanced scientific methodology and comprehensive clinical evaluation. In combination with an appropriate diet and moderate exercise, LipoGin can help maintain optimal body weight and promote healthy fat metabolism, and play a significant role in the quest for healthy aging.

References

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