

29 NEXENTURY

Leptin II



Leptin II (2nd Generation) - A cure of obesity from its root causes !!!

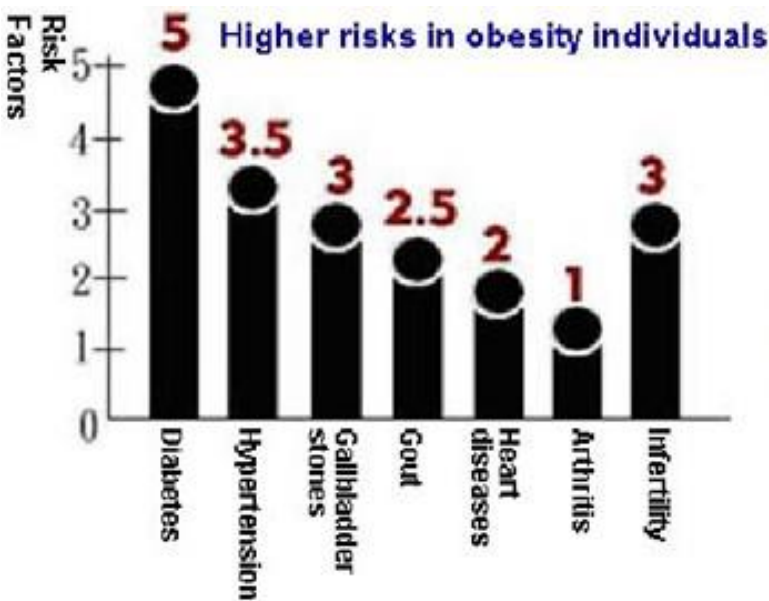


Prof. Jeffrey M. Friedman.

Introduction

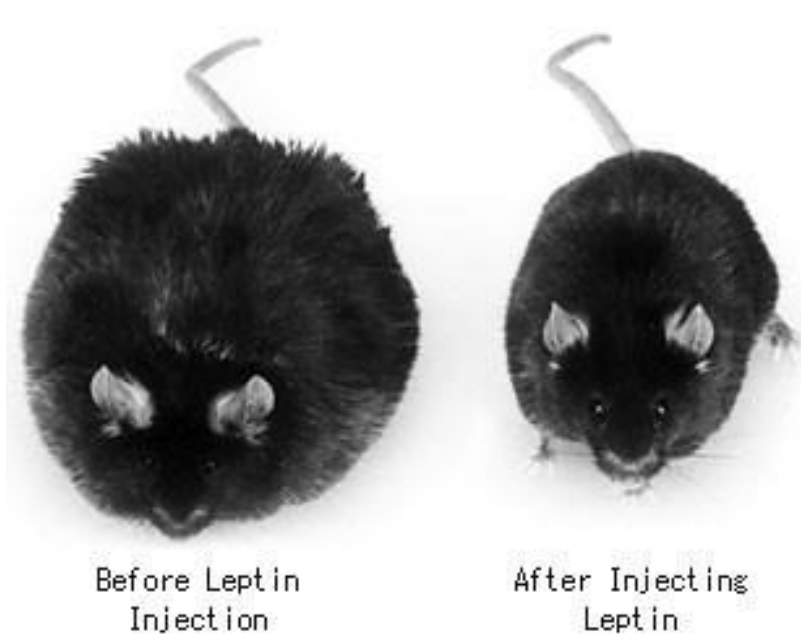
Obesity is a medical condition in which excess body fats accumulated in the body, either due to genetic or excessive food intake. Obesity is defined when the Body mass Index (BMI) exceeds 30kg/m^2 . According to the statistics of World Health Organization (WHO), obese population had increased 3 folds since 1950, with almost 400 millions people in the world are obese. US has the highest obese population (23% of world obese population), followed by Europe (please refer to the following diagram). Statistic conducted in US revealed that 31% of American men and 30% of American women are obese.

Apart from the outlook, obesity will also lead to some medical problems, as shown in the following diagrams:



With advancement in medical sciences, the culprit of obesity is finally discovered – the FTO gene in chromosome 16 of our body. Clinical studies across continents shown that abnormal activities of this gene will cause disorders to the secretion of Leptin in the body,

leading to excessive eating and metabolic disorders (unable to utilize the calories taken), ended up in obesity.



Leptin In 1994, a molecular geneticist of Rockefeller University, USA, Dr Jeffrey M. Friedman discovered Leptin while conducting animal studies, which is a special hormones that regulate calories intake and utilization. He treated Leptin to an obese mouse and successfully reduces the fat mass of the treated mouse (as shown in the following picture).



Leptin is a protein consists of 167 amino acids, and is secreted mostly by the adipose tissues. Other organs, e.g. mammary epithelial, placenta, ovaries, stomach, bone marrows, pituitary glands and liver will also secrete leptin at minute quantity. Leptin inhibits the secretion of

Neuropeptide Y and Anandamide (2 major appetite stimulants) by hypothalamus to suppress appetite, while at the same time increase the secretion of α -MSH to increase metabolism.

Following the above discoveries, medical scientists started to treated Leptin to children who are hereditarily obese. The following are some results after 4 years of Leptin treated (1):

Following the earlier success of leptin in treating hereditary obesity, it is then used in the treatment of obese adults, which had successfully reduced their BMI from 51.2 to 26.9 in 18 months of Leptin treatment. Since then, Leptin treatment became a routine treatment for obesity in US and Europe. Statistics revealed that US government spent USD 1 billion annually in Leptin treatment for the obese population, and UK governments spent around 300 millions

pound in Leptin treatment for obesity. Thus, making Leptin one of the most popular and effective treatment for obesity.

Leptin II – The latest Therapy of Obesity In 2010, with the conglomeration of latest discovery in genetic medicines, Swiss medical scientists invented a formulation which is comprised of several compounds which are found to be biologically active at the genetic level, give rise to the latest treatment of obesity – The Leptin II.

Leptin II is the latest invention of Swiss Aeskulap Brunnen Institution of Biomedical Sciences. Leptin is extracted with their patented technology and natural sources, with the closest molecular similarity with human's natural leptin, which has been proven to suppress appetite and reduce adipose size in human subjects. Leptin II also contains the strongest appetite suppressant in the world, P57, which is extracted from Hoodia cactus of South Africa.

Apart from the above breakthrough, Leptin II also contains the latest discoveries of genetic medicines, FTO gene inhibitor, becoming the only formulation which can shrink adipose size locally and systemically, with long lasting effects. Clinical study revealed that treatment of Leptin II will reduce the measurement of the treated site as much as 0.5-3 inches in 3 days (depending on the dosage) and such reduction shall continue in the next 1 week. The effect of FTO gene inhibitors and Leptin shall remain for 1 month after the treatment, creating a longer lasting efficacy in treating obesity.

References:

1.

Congenital Leptin Deficiency Due to Homozygosity for the

133G Mutation: Report of Another Case and Evaluation of Response to Four Years of Leptin Therapy William T. Gibson, I. Sadaf Farooqi, Mary Moreau, Alex M. DePaoli, Elizabeth Lawrence, Stephen O’Rahilly and Rebecca A. Trussell University Department of Clinical Biochemistry, Cambridge Institute for Medical Research, Addenbrooke’s Hospital (W.T.G., I.S.F., S.O.), Cambridge, United Kingdom CB2 2XY; Department of Pediatric Endocrinology, Alberta Children’s Hospital (M.M., R.A.T.), Calgary, Alberta, Canada T2T 5C7; and Amgen, Inc. (A.M.D., E.L.), Thousand Oaks, California 91320-1799

2.

http://www.pnas.org/content/101/13/4531.abstract?ijkey=6061d0f896f75899e3cf94212f7be47917bb808d&keytype2=tf_ipsecsha