

# Growth hormone related with signs of aging

June 16 2014

---



The decreased production of growth hormone is caused by a physiological process known as somatopause, which practically affects the entire body, since it's involved in body composition, metabolism, bone mineral density and cardiovascular function.

According to Adrian Tovar, a specialist of internal medicine and director of the Noor Clinic, it is from the fourth decade of [life](#) that levels of [growth hormone](#) secreted naturally by the [body](#) begin to decline, which

may manifest in signs of aging, such as narrowing of the spine and lack of dynamism.

While growth hormone determines the height of children, it also intervenes when growth is complete. "It has been documented that, for example, in the case of the heart (which is structurally a muscle), those who have a deficit in growth hormone may have reduced life expectancy by the accelerated loss of muscle mass," referred the specialist.

He added, that it even has an effect on the morale and intellectual status. "Because of all these symptoms the quality of life decreases and adults who are deficient in growth hormone complain about discouragement, tiredness and lack of dynamism. In particular cases, some may experience depression and social isolation," said Tovar, fellow member of the European Society of Endocrinology.

On the metabolic function of the body, the specialist said that studies show that in the first years of life growth hormone is very active; however, when their natural levels drop, the assimilation of proteins, lipids and carbohydrates is affected, and therefore, the levels of cholesterol and triglycerides.

Dr. Tovar said that "by administering recombinant [human growth hormone](#) to adults (between 40 and 80 years of age) with GH deficiency, protein synthesis increases in almost all the cells of the body, coupled with the favored mobilization of fatty acids in Adipose tissue, which increases the amount of [free fatty acids](#) in blood and its use as an energy source. It also decreases the amount of glucose used throughout the body resulting in an increase of lean body mass."

Carlos Tapia, Medical Manager at High Specialty Business Unit at Merck Serono in Mexico, said that the administration of such therapy has been shown to improve overall physical strength and sense of

wellbeing, which translates in improved quality of life but the specialists are the ones who must evaluate each case personally.

"The use of recombinant human growth hormone should be measured and monitored by specialists in endocrinology, who must perform a comprehensive evaluation to determine whether the clinical characteristics of the person correspond to the clinical data for growth hormone deficiency and then consider if the adult has a healthy diet, physical activity habits and appropriate life style, "he said.

Provided by Investigación y Desarrollo

Citation: Growth hormone related with signs of aging (2014, June 16) retrieved 20 April 2024 from <https://medicalxpress.com/news/2014-06-growth-hormone-aging.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--