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Dr Med Sci, Professor Emeritus in Metabolic Epidemiology, University of Copenhagen and Strategic Advisor in the Center for Childhood Health, Copenhagen, Denmark.

### SHORT BIO:

MD in 1971, Dr Med Sci 1983, specialist in internal medicine 1983, and in liver diseases 1985, chief physician 1988, research professor 1989, head of Institute of Preventive Medicine, Copenhagen University Hospitals 1993, professor in clinical epidemiology University of Copenhagen 1994, Dean of the Faculty 1995, professor of metabolic epidemiology 2011, professor emeritus 2020, strategic advisor at Center for Childhood Health 2023. Carried out research mainly in the obesity related field since 1969, and published ~850 scientific papers. Involved in several EU projects, as Coordinator in two projects 2001 and 2005, and head of the Danish Obesity Research Center 2007. Adjunct professor at several universities, and honorary doctor at University of Helsinki 2010 and at University of Southern Denmark 2011. The Population Science and Public Health Award by International Association for the Study of Obesity 2010, The Mickey Stunkard Life Time Achievement Award by the Obesity Society, USA 2015.

# REFLECTIONS ABOUT CAUSES OF OBESITY, LEADING TO A NEW THEORY INTEGRATING ITS BASIC FEATURES

viernes 11 de octubre 12h. Sala José Castillejo 0D1  
IEGD / CCHS Calle Albasanz 26-28, Madrid, 28037

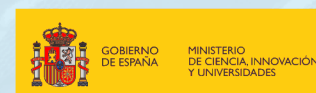
### Abstract:

Beyond the basic facts of the applicability of 1st thermodynamic law of energy conservation (energy balance = energy input – energy output) and requirement inside the body of the presence the chemical origins of the fat accumulated in obesity, we still have far too little knowledge about what causes obesity in some and not others and what has changed in the populations inducing obesity in more and more, now to the level of a pandemic of obesity. Although experimental manipulations of the energy input and output under controlled circumstances may change the size of the body fat, they have generally failed in stably controlling obesity. It appears from other observations that the development of obesity cannot be attributed simply to an increase in energy input relative to the energy output.

Mechanisms that alters the internal partitioning of energy to either fat storage versus oxidation must be considered, which then may or may not lead to alterations in energy intake relative to output.

Moreover, it may be necessary to distinguish, on one hand, the fluctuations of the energy balance and corresponding fluctuations in body composition, fairly well regulated by a complex homeostatic system, and, on the other hand, the progressive development of the reversibility-resistant obesity phenotype.

A new theory, integrating the genetic and environmental influences on both processes, will be presented, but with particular focus on the needs to include the profound, dominating influence of social life, involving the psyche, the brain and its possible direct influences on the local process of fat accumulation ([An adiposity force induces obesity in humans independently of a normal energy balance system—a thought experiment \(royalsocietypublishing.org\)](#)).



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