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# Why obesity week?

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Energy management, a primary necessity for every living being—since life cannot exist without energy—does not equate to the greedy and excessive intake of energy through food, leading to fat accumulation. In nature, wild animals, unconditioned by humans, tend to maintain their weight: one has never seen an obese lion or gazelle in the savannah. Only Homo sapiens can surpass the balance of energy intake and expenditure, as humans can eat even when full and fast even when hungry. The preparation and cooking of food, or gastronomy, is one of the most consistent and refined cultural processes of Homo sapiens, involving the acquisition of increasingly elaborate techniques to derive both energy and pleasure from food. Pleasure is the tool used by the survival instinct to ensure the future of the human species and drives two fundamental aspects of Homo sapiens' perpetuation: nutrition and sex—the survival of the individual and the species, respectively. Clearly, like all paths, this can have negative consequences, as humans are imperfect. Pleasure can turn into a curse, making people slaves to it, as they can become enslaved by cigarettes or other addictions. Even religions have always dictated dietary rules, including fasting and prohibiting certain foods. Unlike social insects like ants, bees, and termites, humans can choose and decide what is best. This is their greatness and, simultaneously, their curse ("original sin"). Food can become a problem for humans, having both positive and potentially negative aspects. Historically, some have claimed that overweight men and women were envied as it indicated success and wealth. However, the damages of obesity have always been recognized: Hippocrates, author of the famous Oath, stated that fat people are more prone to sudden death than thin people. Similarly, the Talmud claims that gluttony has killed more people than famine. In the early 19th century, American insurance companies, well before the medical field, recognized the importance of excess weight and created tables of proper body weight to more accurately assess life risks and calculate insurance premiums. The WHO has recently raised the alarm on "Globesity" due to the skyrocketing rates of obesity and related chronic degenerative diseases (type 2 diabetes, hypertension, dyslipidemia, arteriosclerosis, etc.), with projections estimating that obesity will affect 70% of the population by 2030. A recent request submitted to Minister of Health Orazio Schillaci and signed by seven organizations representing the scientific community, patients, and political-institutional bodies is to include obesity as a key topic on the agenda of the upcoming G7 Health Summit in October. Obesity also generates a significant negative impact on the global economy. The World Obesity Federation predicts that the global economic impact of overweight and obesity will reach $4.32 trillion annually by 2035, nearly 3% of the world's GDP, comparable to the impact of COVID-19 in 2020. This issue affects both industrialized and developing countries, where over 115 million people already suffer from it. By 2035, it is estimated that 79% of adults with obesity or overweight will live in low- and middle-income countries. The WHO Europe calculates that nearly 62 million people live with diabetes, with prevalence rates reaching 10-14% in some states. In 2021, over 1.1 million deaths in Europe were caused by diabetes, making it the fourth leading cause of death. In the U.S., diabetes costs in 2022 were estimated at $412.9 billion, including $306.6 billion in direct costs and $106.3 billion in

indirect costs. Diabetics incur medical expenses 2.6 times higher than non-diabetics. Hypoglycemic drugs account for approximately 17% of direct costs. The main contributors to indirect costs are disability ($28.3 billion), lost productivity ($35.8 billion), and premature deaths (338,526 cases, costing $32.4 billion). In Italy, the situation is alarming: 6 million citizens suffer from obesity, and over 23 million are overweight. Italy also leads the rankings for childhood obesity, with the highest percentage—42%—of overweight or obese children aged 5-9. Among children aged 8-9, 19% are overweight, 9.8% are obese, and 2.6% have severe obesity. Since the first data collection in 2008/09, overweight prevalence has shown a significant decrease, while obesity, after an initial decline, remained stable for several years, with a slight increase in 2023. Over 50,000 children and their families were involved in the study. Parents reported that almost two out of five children do not have an adequate breakfast, more than half consume a large mid-morning snack, one in four drinks sugary or carbonated beverages daily, and eats fruits and vegetables less than once a day. Additionally, 37% consume legumes less than once a week, and more than half eat sweet snacks more than three days a week. Data on physical activity shows that one in five children did not engage in physical activity the day before the interview, over 70% do not walk or bike to school, and almost half spend more than two hours a day watching TV, using a tablet, or a smartphone. A geographical gradient from north to south is confirmed, with higher overweight prevalence in southern Italy. Socioeconomic conditions of families also impact overweight and general lifestyle (data from ISS's "OKkio alla Salute" report, May 2024). The pessimism is so severe that, since spring 2007, Cincinnati Children's Hospital Medical Center extended gastric bypass surgery to children, an intervention previously performed only on adults and considered high-risk due to significant complications. Disorganized interventions, however, lead to paradoxical outcomes, worsening problems. The drive to intervene often stems from the belief that dietary treatments, especially drastic ones, can't hurt, coupled with the hope that rapid weight loss will solve the issue. However, certain risks of intentional rapid weight loss must be emphasized. Rapid weight loss mobilizes cholesterol from adipose tissue (which contains about 2 mg of cholesterol per gram), increasing bile concentration and causing gallstone formation, observed in 11-26% of patients on such diets and 36-71% of those undergoing gastric bypass. Another inevitable consequence is that the stricter the diet, the greater the loss of lean mass, particularly muscle and bone proteins, which serve as a reserve for building vital proteins such as hormones, enzymes, and antibodies. Bone matrix proteolysis promotes decalcification processes, particularly dangerous for the elderly. After excessively low-calorie diets, weight regain is rapid, with a worsened lean-to-fat mass ratio. Failure often leads the obese individual, who may self-blame and become depressed, to start a new, often stricter diet, with subsequent failure. Repeated attempts and failures result in weight cycling (Weight Cycling Syndrome), which can trigger eating disorders (bulimia, anorexia, binge eating, compulsive overeating, carbohydrate craving, night eating syndrome, orthorexia, etc.). Recently, the Canadian Medical Association criticized indiscriminate obesity campaigns for pushing overweight individuals to seek rapid weight loss through commercial solutions, based on miraculous products and magical diets, all deceptive and often dangerous, with harmful health repercussions. The range of unbalanced diets is vast, and only a few well-known examples are listed here. High-protein diets assume proteins have a high satiety effect and fats are poorly digestible, thus suppressing hunger before reaching high caloric intake. Consequences include excessive animal fats and proteins, insufficient fiber, vitamins, antioxidants, and minerals. These diets generally have overly restricted caloric intake; protein excess burdens the liver and kidneys as unused proteins are converted into sugars, increasing renal ammonia and water excretion (diuretic effect). Ketone body production reduces appetite, and weight loss primarily results from water and lean mass loss. For instance, the Scarsdale Diet involves increasing protein intake beyond 45% of calories, reducing carbohydrates to about 34%, and fats to 22%, aiming for a 10 kg loss in 14 days. An integrated approach, such as the "Three A" system proposed by the Italian Society for Obesity (SIO)—Controlled Diet, Physical Activity, and Medical Assistance—remains the best solution for achieving even small weight reductions that significantly

improve health. The U.S. Preventive Services Task Force has developed a counseling strategy defined as the "5 A's": Assess (evaluate risks and strategies); Advise (discuss advantages and disadvantages, personalize information); Agree (set goals and motivation); Assist (establish behavioral modification techniques with technical and pharmacological support); Arrange (plan a diagnostic-therapeutic pathway, including providing informational materials).

From all this, it is clear why it is both appropriate and necessary to hold the 17th edition of Obesity Week.

## References


- Arsenio L. Alimentazione, clima ed evoluzione dell'uomo. Fidenza (PR): Mattioli 1885; 2007.
- Arsenio L. Sessualità, cibo e cervello. Fidenza (PR): Mattioli 1885; 2011.
- Parker ED, Lin J, Mahoney T, et al. Economic Costs of Diabetes in the U.S. in 2022. Diabetes Care. 2024;47(1):26-43.
- Neumark-Sztainer D, Levine MP, Paxton SJ, Smolak L, Piran N, Wertheim EH. Prevention of body dissatisfaction and disordered eating: What next? Eat Disord. 2006;14(4):265-85.
- Neumark-Sztainer D. Eating among teens: do family mealtimes make a difference for adolescents' nutrition? New Dir Child Adolesc Dev. 2006;(111):91-105.
- van den Berg P, Neumark-Sztainer D. Fat'n happy 5 years later: is it bad for overweight girls to like their bodies? J Adolesc Health. 2007;41(4):415-7.
- La Marra M, Messina A, Ilardi CR, et al. Factorial Model of Obese Adolescents: The Role of Body Image Concerns and Selective Depersonalization—A Pilot Study. Int J Environ Res Public Health. 2022;19(18):11501.
- Christakis NA, Fowler JH. The spread of obesity in a large social network over 32 years. N Engl J Med. 2007; 357(4):370-9.
- Gorthmaker SL. Innovations to reduce television and computer time and obesity in childhood. Arch Pediatr Adolesc Med. 2008;162(3):283-4.
- Jeffery RW, Sherwood NE. Is the obesity epidemic exaggerated? No. BMJ. 2008;336(7638):245.
- Kiberstis P, Marx J. Energy expenditure: perspectives on energy balance. Science. 1998;280(5368):1363.
- Mellecker RR, McManus AM. Energy expenditure and cardiovascular responses to seated and active gaming in children. Arch Pediatr Adolesc Med. 2008;162(9):886-91.
- Woodcock J, Banister D, Edwards P, Prentice AM, Roberts I. Energy and transport. Lancet. 2007; 370(9592):1078-88.
- Wudel LJ Jr, Wright JK, Debelak JP, Allos TM, Shyr Y, Chapman WC. Prevention of gallstone formation in morbidly obese patients undergoing rapid weight loss: results of a randomized controlled pilot study. J Surg Res. 2002;102(1):50-6.
- Iglézias Brandão de Oliveira C, Adami Chaim E, da Silva BB. Impact of rapid weight reduction on risk of cholelithiasis after bariatric surgery. Obes Surg. 2003; 13(4):625-8.