Obesity

Obesity as a Disease: The Obesity Society 2018 Position Statement

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The emerging obesity epidemic and accompanying health consequences led The Obesity Society (TOS) in 2008 to publish a position paper defining obesity as a disease. Since then, new information has emerged on the underlying mechanisms leading to excess adiposity and the associated structural, cardiometabolic, and functional disturbances. This report presents the updated TOS 2018 position statement on obesity as a noncommunicable chronic disease.

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Overview

The Obesity Society (TOS) first published a position statement on obesity as a disease in 2008 (1). This statement reflected the thoughtful deliberations and consensus of Society members that was published in the same year (2). In 2016, an updated in-house position paper affirmed the 2008 declaration, stating, "TOS recommits to its position that obesity is a chronic disease with extensive and well-defined pathologies, including illness and death." One year later, in 2017, TOS held a roundtable session sponsored by the Corporate Health Care Advisory Council at the Society's Annual Meeting with the aim of reassessing and updating the official TOS 2008 position statement on obesity as a disease.

Over the past decade, multiple organizations and societies have published position statements on obesity as a disease. A representative listing of these organizations and their position statements is shown in Supporting Information Table S1. Additionally, many reviews by individual authors and societies provide extensive documentation of the underlying causes and consequences of obesity (3-8). These scholarly efforts provide a large and growing information database from which to characterize the disease of obesity.

This report presents the TOS 2018 position statement on obesity as a chronic disease.

Obesity as a Disease

Establishing criteria for a disease, or even "health," has long been debated by not only physicians but also sociologists, philosophers, and ethicists (8,9). Perceptions of illness and disease vary by culture, class, gender, ethnic group, historical time, diagnostic capabilities, prevailing economic conditions, and many other factors. Obesity was considered a status symbol reflecting a person's wealth and power in Renaissance culture (10). With famines and starvation now on the decline, questions remain, such as whether obesity is a "disease" or just a socially unacceptable behavior reflecting a lack of willpower. Some organizations classify obesity as an intermediate chronic disease "risk factor" similar to elevated blood lipids. To move this debate forward, Leach Scully, in a thoughtful viewpoint, suggested that, with limited resources, society needs to first apply rigorous criteria for defining a disease and then establish which diseases are "most worth the investment of time and money" (9). Obesity is not only an underpinning of major chronic diseases such as heart disease, cancer, stroke, and diabetes, to name a few, but can be a serious debilitating condition in its own right. TOS therefore advances an unequivocal position confirming obesity as a disease that the leadership of this organization and those listed in Supporting Information Table S1 collectively rank highly as worthy of society's time and financial investment.

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Position Statement

Diseases are defined as "deviations from the normal or healthy structure or function of a part, organ, or system of the body, caused by underlying etiologies, manifested by characteristic symptoms and signs, and resulting in pathologic consequences that affect health, feeling, or functioning" (9-11). Diseases are thus defined by maladaptive changes from "normal" body structure and function that are brought about by underlying pathophysiologic mechanisms and that lead to symptoms and signs that affect health. In this classical context, TOS takes the position that

> [o]besity is a multi-causal chronic disease recognized across the life-span resulting from long-term positive energy balance with development of excess adiposity that over time leads to structural abnormalities, physiological derangements, and functional impairments. The disease of obesity increases the risk of developing other chronic diseases and is associated with premature mortality. As with other chronic diseases, obesity is distinguished by multiple phenotypes, clinical presentations, and treatment responses.

Specifically, excess adiposity above a predefined threshold may be accompanied by, but not limited to, the following:

- **Structural abnormalities** such as left ventricular hypertrophy, lymphedema/venous stasis, musculoskeletal derangements, liver steatosis/fibrosis;
- **Functional abnormalities** such as gastrointestinal reflux, urinary incontinence, disability/immobility, and the presence of chronic disease risk factors, including the following: insulin resistance, chronic inflammation, dyslipidemia, and elevated blood pressure; infertility; earlier age at menarche in females; and, with pregnancy, large for age fetus and multiple adverse fetal and neonatal outcomes;
- **Signs** and **symptoms,** including hyperphagia with some conditions, obstructive sleep apnea/obesity hypoventilation syndrome, impaired exercise tolerance, and symptoms related to the structural and functional abnormalities noted above;
- Elevated premature **mortality risk**; and an
- Increased **comorbidity risk**, including providing the conditions favoring the development of more than 200 chronic diseases, including but not limited to the following (#; 2015 ranking of major causes of mortality in the United States): cardiovascular disease (#1); some cancers (#2); cerebrovascular diseases (#5); type 2 diabetes mellitus (#7); hypertension; asthma; psychiatric diseases, including depression; polycystic ovary syndrome; nonalcoholic fatty liver disease; gastrointestinal reflux disease; gallbladder disease; osteoarthritis; during pregnancy, preeclampsia and gestational diabetes mellitus; and, during childhood and adolescence, pseudotumor cerebri.

Taken collectively, the disease of obesity accounts for, directly or indirectly, reduced quality of life of affected individuals and imposes substantial societal economic costs.

TOS ascribes to the position that the benefits of defining obesity as a disease outweigh the commonly advanced counterarguments, such as that excess adiposity should be viewed as an intermediate risk factor rather than as a disease per se or that medicalizing obesity would increase rather than decrease some of the adverse social and psychological consequences for those afflicted (12,13).

Advancing the Dialogue

TOS represents a broad coalition of stakeholders that collectively take obesity seriously and that as a group move beyond the debate centering on whether obesity is a chronic disease. By moving the dialogue forward, TOS's aims are to:

- **Advance** recognition of obesity as a worldwide chronic disease pandemic that affects all ages, cultures, races, and ethnicities;
- **Highlight** to individuals with obesity, the medical profession, policy makers, and the public that excessive adiposity is health and life threatening, is associated with other chronic diseases, and is a financial burden on affected individuals and society stemming from the costs of treatment, reductions in workforce participation and productivity, increased absenteeism, reduction in number of eligible military recruits, and decreased academic performance, among other concerns;
- **Promote** the need for increased obesity prevention, treatment, and research resources and encourage government, policy makers, health care providers, educators, payers, and scientific and professional organizations toward meeting prevention and treatment goals, including but not limited to the following: defining and addressing unmet needs and removing structural, political, economic, social, cultural, and legal barriers to progress;
- **Recognize** the critical need for research funding aimed at elucidating the complex mechanisms leading to long-term positive energy balance, ranging from molecular mechanisms to social determinants, and identifying relevant predictors of treatment response to improve patient outcomes;
- **Shift** public perceptions of obesity away from the misinformed view that obesity is a lifestyle choice or aberrant behavior toward a chronic disease model for understanding and addressing obesity at individual and population levels;
- **Reduce** the stigma and discrimination directed toward persons with obesity that lead to harms for affected individuals and limit societal progress by way of stifling motivation among policy makers to address obesity as a serious condition;
- **Counter and minimize** the abundance of unscientific and inappropriate weight-loss products and claims;
- **Support** the development of healthy formulation targets for the food industry and facilitate efforts to regulate the marketing of unhealthy foods and drinks to children and adults;
- **Encourage** leaders at academic institutions, health systems, scientific organizations, and other stakeholder settings to understand and approach obesity as a complex chronic disease and to educate students at all levels accordingly;
- **Educate** health care providers on the topic of obesity, including but not limited to clinicians and trainees in the medical, nursing, nutrition, psychology, and other health care fields;
- **Advance** the view that managing obesity in the clinical and community settings is a vocation worthy of effort and respect;
- **Improve** access to and financial coverage for appropriate evidence-based weight-management treatments and prevention programs for children, young people, and adults;
- **Emphasize** the need for increased numbers of multidisciplinary health care teams providing comprehensive services rather than the current fragmented care systems as well as clinical-community integrations;
- **Encourage** collaborative and coordinated efforts by physicians and other health care workers, scientists, pharmaceutical companies, payers, government, and patients to mobilize the efforts necessary

to combat obesity, ameliorate the suffering of patients, and reduce the social and treatment costs of this disease; and

- **Promote** structural and environmental changes in key behavioral settings, including workplaces, schools, and communities, to provide healthy menu options in workplace cafeterias, encourage provision of physical activity and sleep hygiene education programs, and encourage reductions in occupational and personal stress and the means for workplace stress reduction and other relevant adjustments. O

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