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ASN CONSENSUS STATEMENT CONSIDERS COMPLEXITIES OF ENERGY BALANCE AND BODY WEIGHT REGULATION

April 2, 2012—A fundamental principle of nutrition and metabolism is that body weight is associated with calories ingested (through food and beverages) and energy expended (through exercise and daily life). A new consensus statement written by experts assembled by the American Society for Nutrition and the North American branch of the International Life Sciences Institute reviews the components of this energy balance equation and points out that the relationship between calories ingested and calories expended in the maintenance of body weight is far more complex than commonly believed. Their report has major implications on our understanding of the obesity epidemic and the potential success of therapeutic interventions.

The statement carefully and concisely reviews the components of energy balance, the interactions between components and ways the body regulates energy imbalances. A key message is that all components of energy balance, including energy intake and expenditure, interact with each other to impact body weight. Thus a change in any one aspect, such as energy intake, will correspond to profound changes in the other side of the equation- energy expenditure.

“Most people are aware of calories and that an imbalance between intake and expenditure of calories leads to weight gain. However, this rather simple concept of energy balance hides within it an extremely complex association between different elements of intake and expenditure,” explains co-author John R. Speakman, PhD, University of Aberdeen. “Our task in this consensus report was to explore these complexities and highlight some of the myths surrounding the energy balance concept.” It is the complexity of the energy balance equation, the authors point out, that helps explain why it has been difficult to reverse the nation’s current obesity epidemic. In addition, that complexity also strongly refutes the popular belief that the obesity epidemic is a result of a few “bad foods.”

The panel of experts also dispelled the popular belief that the plateau seen when one is trying to lose weight is due to a slowed metabolism, and the notion that reducing caloric intake by 3,500 calories and keeping energy expenditure the same will lead to one pound of weight loss. Other popular myths are also reviewed.

[Read the consensus statement here](#) and [email ASN](#) to arrange interviews with the authors.

Reference

Hall KD, Heymsfield SB, Kemnitz JW, Klein S, Schoeller DA, Speakman JR. Energy balance and its components: implications for body weight regulation. *American Journal of Clinical Nutrition* 2012;95:989-94.

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