OBESITY IS A DISEASE Causes of Obesity

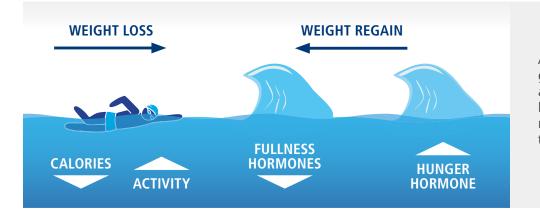
Obesity is a multifactorial disease impacted by internal and external factors

Weight is often related to genetic and environmental factors that patients can't completely control. These combined with metabolic and hormonal responses to weight loss contribute to obesity.¹⁻⁴

Sustained weight management can be difficult

Despite your patients' best efforts, the natural process known as metabolic adaptation may prevent them from keeping the weight off following weight loss from reduced-calorie intake^{1,2}

Healthy eating and physical activity keep your patients on track to lose weight. But when patients lose weight via reduced caloric intake, one of the body's natural responses is to alter appetite-regulating hormones in an attempt to regain the weight they've lost; this is called metabolic adaptation.^{2,3}



According to AACE/ACE guidelines, metabolic adaptation must continually be offset by efforts to maintain weight loss over the long term.⁵

References: 1. Lam YY, Ravussin E. Analysis of energy metabolism in humans: a review of methodologies. *Mol Metab*. 2016;5(11):1057-1071. 2. Sumithran P, Prendergast LA, Delbridge E, et al. Long-term persistence of hormonal adaptations to weight loss. *N Engl J Med*. 2011;365(17):1597-1604. 3. Hebebrand J, Hinney A, Knoll N, Volckmar AL, Scherag A. Molecular genetic aspects of weight regulation. *Dtsch Arztebl Int*. 2013;110(19):338-344. 4. World Health Organization. Obesity and overweight. Accessed November 25, 2023. https://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight. 5. Garvey WT, Mechanick JJ, Einhorn D. The American Association of Clinical Endocrinologists and the American College of Endocrinology: 2014 advanced framework for a new diagnosis of obesity as a chronic disease. *Endocr Pract*. 2014;20(9):977-989.



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