

The Obesity Epidemic Online Seminar

7:45 A.M.–7:55 A.M. CST

Sign-in to classroom

8:00 A.M.–2:30 P.M. CST

A short break will take place from 11:30 AM - 11:50 AM with a working lunch.
(full attendance required & ALL participants must complete a course evaluation).

TOPICS TO BE COVERED:

Consequences of Obesity

- Diagnosis, evaluation, and treatment of obesity in adults and children, e.g. BMI, waist circumference.
 - Environment, cultural and social influences on body weight and body image. Age, socioeconomic status and obesity growth.
- Diabetes, prediabetes, cardiovascular disease, and cancer: How is obesity the common link?
- The Metabolic Syndrome: The new epidemic. The role of central adiposity.
- Leptin, ghrelin, adiponectin: Their role in health and disease. Adiponectin and infertility.
 - The role of gut hormones in body weight regulation and appetite control (e.g. ghrelin).
- Nonalcoholic fatty liver disease in women and men.
- Dietary factors and cancer chemoprevention: An overview of obesity-related malignancies.
- Body mass index and airway hyper-responsiveness in individuals without respiratory disease.
- Obesity: A risk factor for knee osteoarthritis?

Obesity Genes: Do our Genes Make Us Heavy?

- Diet, genes and visceral adiposity. Do we have control over our fat deposition?
- Is there a fat gene? Role of newly discovered Human Obesity 1 (HOB 1) gene.
- Are certain genotypes more metabolically susceptible to a Western lifestyle?
 - The Thrifty Gene Hypothesis.
- Visceral adipose tissue (VAT): Can it cause metabolic disturbances (e.g. insulin resistance, diabetes)?
 - Metabolically obese normal weight vs. metabolically normal obese. Can we be fit and fat?
- Health risks associated with VAT: A new paradigm for the role of fat as an endocrine organ.
 - Fat cells and inflammation. inflammation in the development of insulin resistance and diabetes.
 - The ectopic fat storage syndrome – how it aids in the pathogenesis of diabetes and CVD.

Sleep and Stress: What is Their Role Weight Control?

- Sleep loss: a novel risk factor for insulin resistance and Type 2 diabetes.
- Stress and hunger: Is there a scientific connection?

The New Dietary Recommendations for Weight Loss/Weight Management and Optimal Health

- Weight loss goals: The 5-10% weight loss rule. Improving health with modest weight loss.
- New dietary guidelines for managing plasma glucose and insulin levels.
 - Current recommendations for dietary carbohydrates. What is the optimal amount and type?
- Dietary fat: Current dietary recommendations. Saturated vs *trans* fatty acids - is one better?
 - Optimal ratio of omega-6 polyunsaturated fatty acids to omega-3 polyunsaturated fatty acids.
- Comparing low-carbohydrate, low-fat and very-low caloric intake diet plans. What works?
- Glycemic index: A useful tool for weight loss/weight management? Dietary fiber recommendations.

Pharmacological and Surgical Management of Obesity

- Pharmacological treatment of obesity. The new “anti-obesity” medications: Are they effective?
 - Orlistat in the treatment of obesity and diabetes. Is it effective and safe?
 - Metformin: Will it be the next weight loss drug?
- Bariatric surgery: Is it a safe and effective tool for weight loss/weight management?
 - Which is the best surgical procedure? A review of the different surgical procedures.

Exercise Therapy: Exercise Guidelines for All Fitness Levels

- The biological basis of how physical inactivity leads to chronic disease.
- Relationship between an active lifestyle and a reduction in abdominal fat (The STRRIDE Study).
- The benefits of both aerobic and strength training on energy expenditure and fat deposition.
- Effect of exercise intensity on abdominal fat loss during calorie restriction

Course Objectives

- List the current dietary recommendations for appetite control and glucose and insulin sensitivity.
- Discuss the role of visceral adipose tissue in insulin resistance, prediabetes, diabetes, and cardiovascular disease.
- List dietary, drug and surgical interventions for reducing body fat and promoting weight loss.
- Review exercise recommendations for weight loss/weight management at all fitness levels.
- Review the role of lifestyle modification in disease prevention and management.