

A new paradigm for research and treatment of obesity



UCLA's Center for Obesity and Metabolic Health is committed to improving the success rates of obesity therapies through a unique evidence-based program incorporating treatment and translational research.

Obesity affects more than one-third of American adults and is a major cause of chronic illness, including heart disease, diabetes and arthritis. About 300,000 Americans die every year as a direct consequence of obesity-related complications.

The current approaches to treating obesity have been largely ineffective at curbing the epidemic. At any given time, 50 million Americans are dieting, yet only 5 percent are able to maintain long-term weight loss.

Multidisciplinary approach to understanding obesity

UCLA's Center for Obesity and Metabolic Health is a collaborative effort between the departments of surgery and internal medicine, along with researchers in various basic sciences, to establish an overall concept of care. Patients receive personalized assessments and treatment options informed by the faculty's research expertise. Research is targeted at understanding the physiological mechanisms underlying obesity in order to significantly improve outcomes.

Driving advances in obesity treatment

Persistently high obesity rates over the past decade underscore the need for better long-term therapies despite the success of bariatric surgery, says Erik Dutson, MD, clinical professor and surgical director of the UCLA Center for Obesity and Metabolic Health.

"We know surgery is very effective, but we don't know why these operations work," he explains. "By collaborating with our colleagues in basic sciences and cellular and physical metabolism, we will be able to engage patients in surgical and nonsurgical regimens to help us understand the process of obesity; why, as a nation, we've become so obese and how we can effectively treat people."

Studies will explore the efficacy of sleeve gastrectomy, the fastest-growing type of bariatric surgery; new prescription weight-loss medications and the effects of various exercise regimens on fat deposition and insulin resistance. The center has also received grants to study the effects of obesity on the liver and cholesterol metabolism.

"My goal as a scientist is to figure out a way to do something that is less drastic than an operation," Dr. Dutson says.

UCLA's Center for Obesity and Metabolic Health provides a range of surgical and non-surgical options with the goal of enrolling patients in clinical trials to more accurately assess long-term efficacy through tissue and blood collection, exercise regimens, body composition measurements, brain MRIs, tracking of outcomes and comparison of experimental groups.

Laparoscopic bariatric surgery based on standardized protocols

Presently, bariatric surgery offers the best efficacy for the treatment of obesity with approximately 85 percent of patients sustaining a weight loss of at least 50 percent of excess body weight for five years or more. It remains unclear, however, why bariatric surgery has an overall failure rate of 15 percent. Bariatric surgery typically resolves diabetes in 70 to 85 percent of patients who have been diabetic for less than 10 years prior to surgery. However, recent research suggests that about one-third of those patients will become diabetic again within five to 10 years. UCLA researchers are devoted to understanding the metabolic alterations associated with bariatric surgery. Most other obesity-induced co-morbidities, including sleep apnea, hyperlipidemia and hypertension also improve with bariatric surgery.

The center has received two grants to study central nervous system changes that occur before and after bariatric surgery and to measure blood for metabolic markers before and after surgery. Studies of brain changes using functional magnetic resonance imaging and serologic markers will provide data that may ultimately help identify the optimal candidates for surgery.

UCLA surgeons perform laparoscopic bariatric surgery using a standardized protocol. Patients participate in pre- and postoperative lifestyle modification programs to improve the chances of successful, sustained weight loss.

Nonsurgical obesity treatment

At the Center for Obesity and Metabolic Health, specialists from surgery, internal medicine, endocrinology, nutrition, exercise physiology and basic sciences are investigating nonsurgical approaches for patients who are not interested in surgery or who do not meet established criteria for bariatric surgery. National Institutes of Health guidelines require a BMI (body mass index) of 40 or greater for bariatric surgery qualification or a BMI between 35 and 39.9 in individuals with a serious obesity-related health condition. At UCLA, patients who fail to qualify for bariatric surgery are offered nonsurgical treatments, including medication and/or a regimen involving diet and physical activity. These nonsurgical options also fall into structured research protocols to maximize the likelihood of success.

In addition to medical management, endoscopic methods are now available to treat weight regain and surgical failure following gastric bypass. In many cases, the surgically created gastric pouch may dilate over time, allowing for increased food consumption and weight gain. UCLA gastroenterologists are now using endoscopic techniques to reduce the pouch volume and help restore proper surgical anatomy during an outpatient procedure. The center has received a grant to study the role of the gut hormone system in mediating weight gain and control of satiety in this patient population.

Participating Physicians

Erik Dutson, MD

Professor of Surgery

Surgical Director, UCLA Center for Obesity and Metabolic Health (COMET)

Simon William Beaven, MD, PhD

Assistant Professor in Residence

UCLA Division of Digestive Diseases

Medical Director, UCLA Center for Obesity and Metabolic Health (COMET)

Rabindra Watson, MD

Assistant Clinical Professor of Medicine

UCLA Division of Digestive Diseases

Jennifer Han, MD

Assistant Clinical Professor

Division of Endocrinology, Diabetes and Hypertension

Yijun Chen, MD

Assistant Clinical Professor

Division of General Surgery

Zhaoping Li, MD, PhD

Clinical Professor

Department of Medicine

UCLA Center for Human Nutrition

Contact Information

UCLA Center for Obesity and Metabolic Health
200 UCLA Medical Plaza, Suite 214
Los Angeles, CA 90095

(310) 825-7163 Bariatric Program

bariatrics.ucla.edu