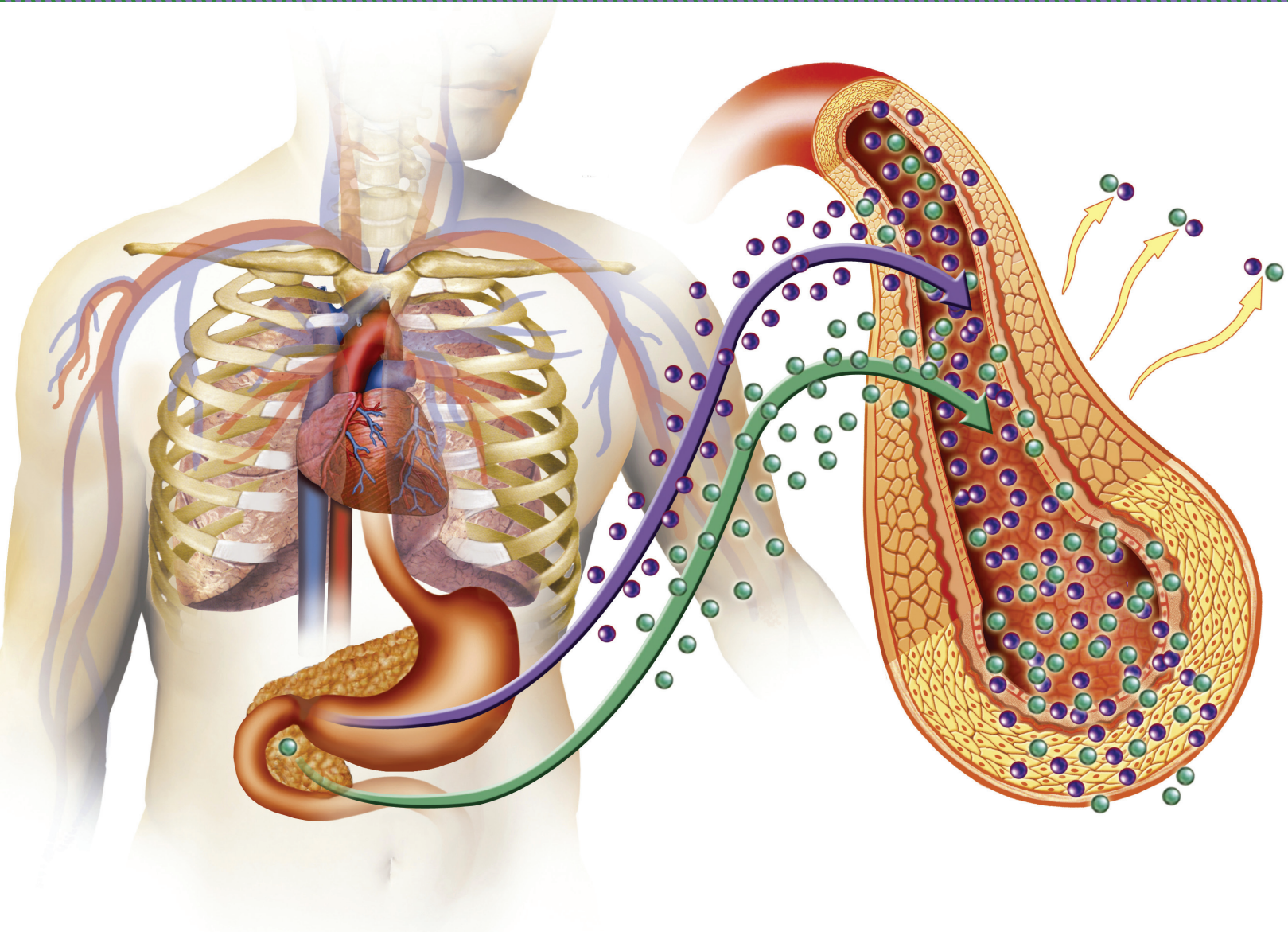


# DIABETES, OBESITY AND METABOLISM INSTITUTE AT NORTHWESTERN MEDICINE

## DIABETES CENTER



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If current trends continue, 1 in 3 American adults will have diabetes by 2050\*. The Diabetes Center at Northwestern Medicine will incorporate genetic, molecular, and physiological breakthroughs into nutritional interventions and wellness lifestyle programs to make sure this statistic does not become a reality. We also will provide more coordinated care to improve the lives of those living with diabetes today.

Specifically, the Diabetes Center within the Diabetes, Obesity and Metabolism Institute will decrease the natural lag time that occurs for a new scientific discovery to reach the patient. A primary function of the Diabetes Center will be to create an infrastructure that will efficiently enable a high level of coordination between teams of scientists and healthcare providers, thus facilitating science and discovery. We also will establish a highly coordinated patient-centered clinic to more effectively treat those affected by diabetes and its related conditions.

Diabetes, obesity, and metabolic syndromes are disorders that arise from abnormalities in how sugar and other nutrients are used by our bodies. Today, these diseases are the leading cause of heart disease, stroke, high blood pressure, blindness, kidney disease, amputations, and pregnancy complications. At Northwestern University, we are bringing more than 100 clinicians and scientists and more than \$20 million in National Institutes of Health funds to bear toward tackling these diseases.

### Our Clinical Centers

The Diabetes Center will pull together four existing centers/clinics to better coordinate the transfer of knowledge and improve clinical care:

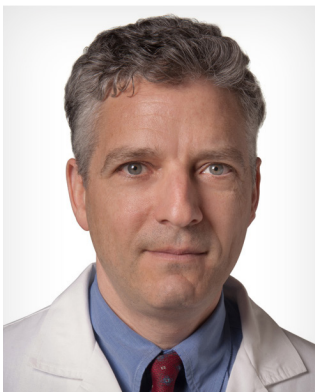
- Comprehensive Center on Obesity – Comprised of clinicians that deliver prevention and nutrition guidance in weight management and medical and surgical treatment options for patients.
- American Diabetes Association Accredited Diabetes Program – Serves as the education hub for patients by providing crucial diabetes education classes and clinical guidance.
- Northwestern Diabetes & Endocrinology Clinic – Ranked 8th in *US News & World Report* and houses more than 40 academic endocrinologists leading major clinical trials that are accelerating our understanding of treating diabetes as we know it today.

- Endocrine Cancer Clinic - Brings together teams of physicians, surgeons, and other healthcare providers to provide cutting-edge, cancer-focused healthcare.

Together, these centers and clinics will serve patients from Northwestern Memorial Hospital, Northwestern Lake Forest Hospital, Northwestern Glenview, and Grayslake. We are creating a seamless, integrated healthcare system that is guided by our top-ranked physicians and provides comprehensive care that includes education, prevention, and support systems.

### Our Research Programs

Our research occurs at the molecular level all the way to the human level. Researchers at each stage are uncovering major scientific breakthroughs that are moving us closer to solving key medical issues in the areas of type 1 diabetes, type 2 diabetes, obesity, and other metabolic disorders.



“As we launch the Diabetes Center at Northwestern Medicine, I am excited and confident that we are uniquely poised to establish a premier center to implement team-based clinical care for individuals with these disorders. The new Diabetes Center will foster an interdisciplinary environment to inspire new inroads to fight disease—catapulting Northwestern to international eminence in this rising epidemic.”

Joe Bass, MD, PhD, Chief of the Division of Endocrinology, Metabolism and Molecular Medicine and Charles F. Kettering Professor of Medicine

**10% of Americans have Type 2 Diabetes—of this group, 85% are overweight or obese.\***



Members of the Diabetes Center: Robert Kushner, MD, Grazia Aleppo, MD, and Mark Molitch, MD

**Highlights include:**

**Type 1 diabetes** - Often first diagnosed in children, we are discovering promising strategies to reverse the onset of type 1 diabetes in high-risk patients and to deliver islet transplantation with unique regenerative tools. We have been part of the National Institutes of Health (NIH)-sponsored landmark study (Diabetes Control and Complications Trial) that established that good blood sugar control is able to decrease the long-term complications of diabetes. This study is ongoing at Northwestern and continues to provide information as to how such complications can be prevented or delayed.

**Adult-onset type 2 diabetes** - Interdisciplinary groups of Northwestern scientists are identifying genes and metabolic pathways that are leading to new treatment possibilities. We also are focused on discovering ways to better treat complications from diabetes that occur in the eyes, kidney, nerves, and heart, including new strategies to reverse disease even after it occurs in small vessels in these tissues. We have been part of the NIH-sponsored study (Diabetes Prevention Program) to show that lifestyle changes can be effective in preventing diabetes.

Through the support of our partners, we will firmly place Northwestern University at the epicenter of discovery and major scientific breakthroughs in diabetes, obesity, and metabolic syndromes for decades to come. This will propel our Diabetes Center into an internationally recognized, comprehensive hub for the treatment and prevention of diabetes and its related conditions across all age groups.

**Metabolic disorders** - Top scientists also are focused on related metabolic disorders such as polycystic ovarian syndrome and thyroid diseases with a goal to uncover genetic and biochemical basis of these diseases.

**Pioneering Research at Northwestern University**

Over the past few decades, researchers at Northwestern University have been pivotal in three major groundbreaking areas: circadian biology, diabetes in pregnancy, and preventive and clinical outcomes in diabetes.

**Circadian biology (Understanding how our internal body clock impacts health)**

- It has long been known that disrupting our internal clocks can lead to diseases such as obesity and diabetes. In the late 1990s, Northwestern researchers were the first to understand this at the gene level, revolutionizing the direction of future research. Since then, discoveries from our scientists within our Departments of Medicine, Neurobiology, and Neurology are leading to emerging treatments in these areas, and new drugs are on the horizon that have emerged from this research.

**Diabetes in pregnancy** - Since the 1950s, Northwestern has been the leader in studying the impact that diabetes has on maternal-child health. Our research examines how a mother's obesity and high sugar levels affect the child's lifelong risk of obesity and his or her overall metabolic health. Outcomes from our work have set the standard for how to best treat diabetic women during pregnancy. Findings have also uncovered new genetic links and possible therapeutic avenues for clinical care.

**Preventive and clinical outcomes in diabetes**

- Northwestern University physicians have been the cornerstone of trials that have defined how diabetes is treated. These studies have transformed diabetes care and prevention measures throughout the world, significantly improving life for diabetics from the hospital to the home. Ongoing work is uncovering how new technologies can further improve clinical care, as well as how educational measures can minimize diabetes and its complications and improve well-being throughout the region.

**34% of Americans are pre-diabetic and have a risk of developing Type 2 diabetes within 5 years.\***

\*Centers for Disease Control and Prevention



## THROUGH NORTHWESTERN MEDICINE, WE ARE CREATING A NATIONAL EPICENTER FOR HEALTHCARE, EDUCATION, RESEARCH, COMMUNITY SERVICE, AND ADVOCACY.

### Northwestern Medicine

Northwestern Memorial HealthCare and Northwestern University Feinberg School of Medicine comprise Northwestern Medicine. Together, we aspire to be the destination of choice for people seeking quality healthcare. Our commitment to transform healthcare and to be among the nation's top academic medical centers can only be accomplished through innovation and excellence as displayed by the Diabetes Center within the Diabetes, Obesity and Metabolism Institute.

At Northwestern, we recognize that every positive contribution we make to diabetes is made possible by donors who entrust us with their philanthropic support. We invite interested friends to join us in advancing the Diabetes Center through gifts of outright support and endowment.

### To learn about more about our programs, please visit:

<http://diabetes.nm.org/>

<http://www.medicine.northwestern.edu/divisions/endocrinology/>

[www.ncco.northwestern.edu/research/areas/diabetes-type-2.html](http://www.ncco.northwestern.edu/research/areas/diabetes-type-2.html)

### To support the Diabetes Center, please contact:

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