When Joel Zonszein, M.D., above, arrived at Einstein more than 20 years ago, most patients with type 2 diabetes—then called “adult-onset diabetes”—were elderly. Today, this disease is more common, more aggressive and more likely to affect the young. It is associated with obesity, insulin resistance, dyslipidemia and early heart disease and death.

“When diabetes is diagnosed and treated early, we can prevent complications, but that’s not happening,” says Dr. Zonszein, a professor of clinical medicine in the department of medicine (endocrinology) at Einstein. The incidence of the disease is skyrocketing, mainly among minorities, and it remains underdiagnosed and undertreated. One third of patients with type 2 diabetes don’t know they have it; many of those who know they have it are not treated, and those who are treated are rarely treated optimally.

“We should be doing a much better job,” adds Dr. Zonszein, an attending physician in medicine at Montefiore, the University Hospital and academic medical center for Einstein.

Elevated Risk in the Bronx

Dr. Zonszein notes that change is especially difficult in underserved areas such as the Bronx, where the prevalence of diabetes among the borough’s disadvantaged minorities is among the highest in the nation. Yet these
Power to the Patients (continued)

patients have poor access to healthcare, struggle to afford medications and must hurdle language and cultural barriers. “It’s frustrating, in this country, not being able to better prevent and treat such a common disease,” he says.

Dr. Zonszein adds that inertia among patients—and among their doctors, too—prevents early and aggressive treatment. “We’re working hard to improve healthcare delivery for this devastating disorder,” he says.

Empowering Patients
“We’ve developed programs at Montefiore that give patients the power to manage their disease,” Dr. Zonszein continues. In the Diabetes Self-Management Education Program, a registered nurse and a registered dietitian—both certified diabetes educators—teach type 2 patients to monitor their own weight, cholesterol, blood pressure and blood sugar; improve their diet; exercise more; and take their medicine.

Patients don’t just “go on a diet” and sign on for exercise boot camp. “It’s a matter of getting patients motivated,” says Dr. Zonszein. “It’s about healthier lifestyles for the entire family.” Out with giant servings, sugary drinks, saturated fat and fried food; in with “slow food”—eating healthier, with less stress, and at a table, with family and friends.

Weight-loss goals in the program are realistic. As Sharon Movsas, R.D., C.D.E., the program coordinator, puts it, “The focus is on the plate and not the weight.” The exercise plan involves setting equally reasonable goals: walking with a dog, going to a gym, starting an enjoyable sport. Most people leave the program healthier and happier.

These initiatives rest solidly on landmark trials emphasizing lifestyle change in which Dr. Zonszein has participated during his career. As a co-investigator in the Diabetes Prevention Program, a National Institutes of Health trial, he found that modest weight loss through diet and exercise was actually more effective than medication at reducing the risk for type 2 diabetes—confirming the power of the patient. Add early treatment to these already potent lifestyle changes and you really can help prevent the disease and its complications.

From Too High to Too Low
The hallmark of diabetes is hyperglycemia, or elevated blood-sugar levels. But abnormally low blood sugar, known as hypoglycemia, can be dangerous as well. Hypoglycemia is common in hospitalized patients—especially the elderly, frail and severely ill. In a recent study among hospitalized patients with and without diabetes, Dr. Zonszein found that spontaneous cases of hypoglycemia are more dangerous than falls in blood sugar caused by medications given to patients with diabetes. Spontaneous hypoglycemia appears to be a biomarker of serious illness and carries a poor prognosis.

Q: How does economic disadvantage increase the risk for type 2 diabetes?
A: Economically disadvantaged people live in areas where controlling diabetes is a challenge. These areas typically lack stores that sell fresh produce; parks and other safe places to exercise are also in short supply. As a result, residents commonly are stuck with convenience stores and fast-food restaurants selling foods high in calories, fat and sugar. Poor diets and lack of exercise cause weight gain, increasing the risk of type 2 diabetes.
The Honorable Sonia Sotomayor, Survivor

“My doctor discovered that Albert Einstein College of Medicine, a leader in juvenile diabetes research, ran a clinic at Jacobi Medical Center, a public hospital, which by luck happened to be located in the Bronx... With a strong focus on patient education, the clinic was pioneering much that is now standard practice: child-friendly lessons on how to live with diabetes, on nutrition and on what’s going on in your body.”

— Bronx native and Supreme Court Justice Sonia Sotomayor in My Beloved World (Knopf, 2013)
The Albert Einstein Diabetes Research Center (DRC) gratefully acknowledges the generosity of the individuals and organizations whose support is critical to advancing its mission.

CONGRATULATIONS!

Three members of the Diabetes Research Center were invested with endowed academic positions at the 2013 Einstein Academic Convocation, held during the “Campaign to Transform Einstein” event at New York’s Plaza Hotel on April 15.

Inspired by her belief in translational medicine’s potential to heal the world, the late Muriel L. Block, a longtime leading Einstein Benefactor and friend, made a remarkable bequest that resulted in a gift of more than $160 million to benefit research at the College of Medicine. Part of this historic gift will endow a series of chairs that will support the work of outstanding Einstein faculty members in a variety of disciplines. At the Convocation, Meredith A. Hawkins, M.D., a professor of medicine (endocrinology) at Einstein and an attending physician in medicine (endocrinology) at Montefiore Medical Center, was invested as the Harold and Muriel Block Chair in Medicine. (She was also formally installed as the first director of Einstein’s Global Diabetes Institute.) Dr. Hawkins’ research interests include the effects of nutrient deficiency and excess on insulin resistance; nutritional regulation of adipose tissue inflammation; and the regulation of hepatic glucose production in diabetes mellitus.

Judith Wylie-Rosett, Ed.D., was invested as the Atran Foundation Chair in Social Medicine. Her research focuses on the role of nutrition in chronic disease prevention and control. Dr. Wylie-Rosett is also a professor of epidemiology & population health and of medicine (endocrinology) and head of the department of epidemiology & population health’s division of health promotion and nutrition research. The Atran Foundation and Einstein have shared a long and fruitful partnership, including the Atran Foundation Exchange Scientist Program, which facilitates research collaborations between Einstein faculty members and their colleagues at renowned medical institutions in Israel.

Teresa P. DiLorenzo, Ph.D., was invested as the first Diane Belfer, Cypres & Endelson Families Faculty Scholar in Diabetes Research. The goals of her work are to better understand the underlying immunopathogenesis of type 1 diabetes and to develop improved tools to monitor and manipulate pathogenic T cells that destroy beta cells in the pancreas. This research may lead to therapies that halt the progression of early diabetes or prevent the disease entirely. Dr. DiLorenzo is also a professor of microbiology & immunology and of medicine (endocrinology). Dr. DiLorenzo’s endowed position was made possible by the generosity of Einstein Overseer Diane Belfer and her children, Sheryl and Kenneth Endelson and Kathi and Gary Cypres. Mrs. Belfer is a longtime Einstein Benefactor. Together with her late husband, Arthur B. Belfer, she has been a distinguished supporter of biomedical and translational research at the College of Medicine.

To learn more about supporting the work of the DRC, please contact:

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