

C@C: Dr. Zweig, as a diabetes specialist, why do you think we are seeing an increasing number of patients with adult onset diabetes?

The epidemic of obesity is the #1 reason for an increasing number of patients with type 2 (adult onset) diabetes. It accounts for more than 80% of cases. The incidence of obesity is dramatically increasing in children. We are seeing “adult onset” diabetes in children. Parents need to provide examples of a healthy lifestyle to their children. They need to educate their children about healthy eating and being active and avoiding soda, fast food, and juice. In order to promote more exercise, TV and video games should be limited.

C@C: What advice do you give to patients with a family history for diabetes?

These patients should focus on exercise and maintaining a healthy weight. In addition, they should see their physicians for regular screening (see below).

C@C: Who else is at risk?

Other patients at risk are those who have a personal history of gestational diabetes, polycystic ovary syndrome or borderline glucose elevations on fasting blood tests. Overweight patients should also be screened.

C@C: What is your approach to the patient with newly diagnosed elevated blood sugar?

It depends on the patient and the degree of elevated blood sugar. I would first try to find the reason that the sugar is elevated. If the glucose were only mildly abnormal, I would recommend lifestyle modification (diet and exercise). However, if the glucose is significantly elevated and/or if the patient is symptomatic, medication is needed (see below).

C@C: Many patients struggle with losing weight and keeping it off. What types of support are available to help patients succeed at dieting?

The goal should be a lifestyle change, rather than a diet. A “diet” implies that you are going on something and then off of it. Learning to what to eat and portion size are the key elements. Patients often benefit from seeing nutritionists.

C@C: At what point do you consider the use of medications and which ones do you choose?

I consider a medication if there has been no significant improvement with lifestyle modification, the patient is symptomatic, or tighter control is desired. Medication type really depends on the patient. It is important to treat the underlying problem. In type 2 diabetes, the underlying problem is the resistance to insulin produced by excess body fat rather than the lack of sufficient insulin that starts in early life (type 1). In addition, the patient’s other medical problems and medications are taken into consideration as possible

contributing factors. If we are unable to achieve control using oral agents, insulin is added.

C@C: Can early treatment prevent or slow the progression to more severe forms of diabetes? Is medication more effective than diet and exercise?

The Diabetes Prevention Program (DPP) was a major clinical trial, or research study, aimed at discovering whether either diet and exercise compared to the oral diabetes drug metformin (Glucophage) could prevent or delay the onset of type 2 diabetes in people with impaired glucose tolerance. The study had >3200 adults. The DPP found that over the 3 years of the study, diet and exercise sharply reduced the chances that a person with impaired glucose tolerance would develop diabetes. Metformin also reduced risk, although less dramatically. The average follow-up was 2.8 years. The goal was for at least a 7% weight loss and 150 minutes of physical activity weekly in the lifestyle group.

The take home message is that the Diabetes Prevention Program (DPP) showed that for high-risk patients, dietary changes and exercise worked better to prevent diabetes or delay the progression of the disease than metformin.

C@C: What is the best way for a patient to monitor patient progress?

Patients should check finger stick blood glucose before and after eating and have regular laboratory tests. These should include Hemoglobin A1C, which is the average glucose level over the past few months.

C@C: What other forms of testing can help to define the diabetic's risk for heart attack, stroke or kidney disease?

We use laboratory tests for glucose, cholesterol, and measures of inflammation. Urine tests of microscopic protein can detect early kidney disease. We prescribe early dilated eye exams. Stress tests and carotid imaging can help predict risks for heart attacks and strokes.