

# **DIABETES COMORBIDITIES:** OBESITY, HYPERTENSION, AND HIGH LDL CHOLESTEROL

To treat type 2 diabetes (T2D), American Diabetes Association (ADA) guidelines are moving from a rigid, algorithmic approach to a multidimensional, patient-centered approach that recognizes different needs and goals among individual patients. This new approach is due in part to the different comorbidities that individual patients may present.

The most common comorbidities found in patients with diabetes are obesity, hypertension, and dyslipidemia.<sup>2</sup>

Let's review these 3 comorbidities:

### Obesity

Over 85% of people with T2D are overweight or obese.<sup>3</sup> In fact, there's such a strong association between the conditions that they are sometimes referred to with a single term: "diabesity."<sup>4</sup>

Obesity has become an epidemic over the past few decades. One-third of all Americans are obese and another one-third are considered overweight.<sup>4</sup> Further, in this world of processed food, big meal portions, and fewer opportunities to exercise, it's become increasingly more difficult for people, including those with diabetes, to achieve normal weight.<sup>4</sup>

The ADA recommends that patients with A1C between 5.7% and 6.4% should be referred to an effective ongoing support program that targets a 7% loss of body weight.<sup>2</sup>

Even a modest amount of weight loss may provide clinical benefits (improved blood sugar levels, lower blood pressure, and lower LDL cholesterol) to patients with T2D, especially those recently diagnosed. You can help your T2D patients achieve weight loss with counseling on nutrition, physical activity, behavior modification, and ongoing support.<sup>2</sup>

#### What is the difference between normal weight, being overweight, and being obese?

Measuring body fat is usually done utilizing the body mass index (BMI).<sup>4</sup> Normal weight correlates with a BMI between 18.5 to 24.9. Patients are considered overweight if their BMI is 25 to 29.9. Patients with a BMI of 30 or above are considered obese.<sup>4</sup>

Your patients can calculate their BMIs by using the Adult BMI Calculator from the Centers for Disease Control at http://www.cdc.gov/healthyweight/assessing/bmi/adult\_bmi/english\_bmi\_calculator/bmi\_calculator.html.<sup>5</sup>

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## Hypertension

Many patients with diabetes do not have their blood pressure under control. In adults with diabetes who are aged 18 years or older, 71% had blood pressure ≥140/90 mmHg or used prescription medications for hypertension between the years 2009 to 2012.6

According to the American Association of Clinical Endocrinologists (AACE), the goal for hypertension among patients with diabetes is less than 130/80 mmHg.<sup>2</sup>

AACE recommends an angiotensin converting enzyme inhibitor (ACEI) or an angiotensin receptor blocker (ARB) in addition to lifestyle management. For initial blood pressure that is more than 150/100 mmHg, AACE recommends dual therapy.<sup>7</sup>

## High LDL cholesterol

In patients with diabetes aged 18 years or older, 65% had high LDL cholesterol (greater than or equal to 100 mg/dL) or used cholesterol-lowering medications.<sup>6</sup>

Helping your patients with diabetes reduce their intake of saturated fats, trans fats, and cholesterol and increase omega-3 fatty acids (found in fatty fish, such as salmon), soluble fiber (found in fruits and vegetables such as apples and peas), plant stanols/sterols (found in legumes, nuts, seeds, and whole grains), combined with weight loss (if needed) and increased physical activity, can help improve their lipid profile.<sup>2</sup>

In most adult patients with diabetes, a fasting lipid profile should be done at least annually.<sup>2</sup>

### CASE**MANAGERS**

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