

Checking Blood Sugar Levels



People with type 1 diabetes (T1D) must check their blood sugar (glucose) levels throughout the day using a blood glucose meter. The meter tells them how much glucose is in their blood at that particular moment. Based upon the reading, they take insulin, eat, or modify activity to keep blood sugars within their target range. Regularly checking blood sugar levels is an essential part of T1D care.

Methods for Checking Blood Sugar Levels

Checking, or testing, involves taking a drop of blood, usually from the fingertip, and placing it on a special test strip in a glucose meter. Blood sugar meters are easy to use, and even young children often learn quickly how to do their own blood sugar checks. In order to properly manage their diabetes, individuals with T1D check their blood sugar levels several times per day. For example, they may test before eating lunch and before strenuous exercise.

Blood sugar levels are measured in milligrams per deciliter (mg/dL). A normal blood sugar level is between 70 and 120 mg/dL. Keeping blood sugar levels within this range may be difficult in children with diabetes. Therefore, an individual's doctor may adjust the target range (for example, 80-180 mg/dL).

However, people with diabetes can't always maintain blood sugar levels within the target range, no matter how hard they try. A person's varying schedules and eating habits, as well as the physical changes that occur as they grow, can send blood sugar levels out of range for no apparent reason. A person with T1D should never be made to feel that it is their fault if their blood sugar levels are out of range.

Continuous Glucose Monitoring

As of 2006, a device called a continuous glucose monitoring (CGM) system is available to test blood sugar. It works much like an insulin pump and constantly displays an individual's blood glucose level on a screen. This system still requires a few finger pokes during the day but greatly reduces the number of meter tests. The CGM attaches to the body like an insulin pump, and the site must be changed at least every three to five days.