## Starting Insulin – a patient guide

## **MANAGING DAILY DOSES OF INSULIN**

You take insulin to keep your blood sugar as close to normal as possible. This will help prevent complications from diabetes such as heart, eye, and kidney damage.

Before meals	70-130 mg/dL
After meals	Less than 180 mg/dL
Fasting blood sugar	Less than 90-110 mg/dL
2 hours after meals	Less than 140-180 mg/dL

Normal blood sugar level change depending on the time of day you test it.

Your healthcare provider will tell you what levels are right for you.

If you are taking one shot of insulin a day, it is usually a long-acting or intermediateacting insulin that has a slow, steady release over 10-12 hours. Regular or short-acting insulin is usually taken around meal times. Insulin helps your cells use the sugar and other carbohydrates you eat for energy.

Some people on insulin use a "sliding scale," while others have set doses each day. If you are on a sliding scale, results of your blood sugar check tells you how much insulin to take. Your healthcare provider will teach you how to use blood sugar results to decide your insulin doses. Do **not** decide on your own how much insulin you need.

Blood sugar goes up with food, stress, and illness. Blood sugar is lowered by diabetes pills, insulin, exercise, and not eating. This rise and fall makes it important to regularly test your blood to know your blood sugar.

High blood sugar levels ("hyperglycemia") are dangerous and can cause long-term problems. If you have too much sugar in your blood, your body will try to use fat and muscle for energy, causing "ketones" to appear in your urine. Ketones in your urine show that your blood sugar is too high. Ketones can also give your breath a sweet, fruity odor. If your blood sugar is very high—over 500 mg/dL—call your healthcare provider right away. You may need emergency care.

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Signs of very high blood sugar include:

- Dry, parched mouth Increased hunger
- Increased thirst Warm, dry skin with no sweating
- Increased urination
  Sleepiness or confusion

Blood sugar levels change when you are sick because of:

- Change in diet
- How sick you are
- Change in exercise
- Other non-diabetes medications

You need to test your sugar more often when you are sick. Your insulin dose may need to be changed. Call your healthcare provider when you are sick.

A blood sugar that is too low ("hypoglycemia") can be very dangerous, even lifethreatening.

Hypoglycemia can be caused by:

- Wrong doses of diabetes medications—either insulin or diabetes pills
- Not eating enough carbohydrates Exercising without eating • Delaying or skipping a meal

  - Drinking alcohol on an empty stomach

Signs of hypoglycemia include:

- Sudden hungerSweatingSleepiness
- Shakiness, trembling, or a fast heartbeat
- Dizziness, lightheadedness, or confusion
- Anxiety
- Difficulty speaking
- Acting funny or not making sense to family or friends
- Weakness

If you think your blood sugar may be too low, check it! If it is too low, eat a quick snack, such as an orange, banana, or a piece of toast. If you do not have your glucometer with you and cannot test your blood sugar, go ahead and eat or drink something with sugar immediately.

Carrying a pre-measured amount of sugar in the form of a snack, glucose tablets or gel is a good idea.

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