



## Diabetes Mellitus – Type 2

### WHAT IS IT?

Diabetes is a group of common clinical conditions with elevated blood glucose due to abnormalities in the metabolism of sugar. Type 2 diabetics have insulin in their systems, but their tissues are often resistant to its action. In addition to high blood sugar, diabetic patients can develop kidney, eye, nerve and heart disease especially when they have the condition for many years.

### DIAGNOSIS

Diabetes is typically diagnosed by blood tests. A random blood sugar greater than 200, fasting blood sugar greater than 126, or a 3-month “average” blood sugar, called HgbA1C, greater than 6.5 are all diagnostic of diabetes.

### TREATMENT

Integrative care is ideal for diabetes management as it incorporates many modes of optimizing health.

#### Lifestyle

- Exercise:** Exercising regularly can prevent the onset of diabetes and also improve its control once diagnosed. Aim for 30 minutes of moderate exercise most days of the week.
- Low glycemic index and load:** These are a score determined for each food. Higher glycemic load foods cause a greater elevation in blood sugar. Eating a low glycemic load diet can improve levels.

#### Medications

- Many pharmaceutical medications enhance the body’s natural insulin or replace it altogether. Common side effects of most diabetes medications include hypoglycemia, or sugars that are too low. Be sure to discuss your diabetes medications with your doctor. Understand how each one acts in the body and what the optimal time is to take each.

### Botanical or Dietary Supplements

- Chromium is found in a variety of foods but has been shown to lower blood sugar when taken at higher doses (>200mcg/day) in supplement form. It may cause abdominal discomfort and should be avoided at very high doses in patients with kidney or liver disease.
- Alpha-Lipoic Acid (ALA) has been shown to improve nerve pain from diabetes. The best science for this is with an intravenous formulation, but it may also be tried orally at 600-1200mg/day.
- Cinnamon cassia, the most popular form of cinnamon in the United States, has been shown to lower fasting blood sugar. Dosing is about 2000 mg/day divided and optimally an aqueous extract is used if taken in supplement form.
- Fenugreek is a common cooking spice in Middle Eastern cuisine, fenugreek has been shown to lower blood sugar and cholesterol levels. Dosing depends on the formulation used and it may cause urine to smell like maple syrup.
- Gymnema leaves have been chewed in India for years and have earned the name “sugar destroyer.” It has been shown to lower glucose levels and can be ingested as a tea three times daily or a supplement 400-600mg/day.

Make sure to ask your health care provider exactly how and when you should take this product.

### My Health Care Provider’s Notes:

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