PATIENTS WITH DIABETES NEED TO KEEP TARGETS IN CHECK

RECOMMENDED TARGETS

- Hb A_{1c} = 7.0%
- Fasting blood glucose or blood glucose before meals = 4.0 - 7.0mmol/L
- Blood glucose two hours after eating = 5.0 - 10.0mmol/L
- Blood pressure = 130/80mmHg
- LDL-cholesterol = below 2.5mmol/L
- Total cholesterol to HDL-cholesterol ratio = below 4mmol/L

LIFESTYLE MODIFICATIONS

Diet

People with diabetes should follow Canada's Guidelines for Healthy Eating

- emphasize cereals, other whole grain products, fruit and vegetables
- limit sodium, alcohol and caffeine

Carbohydrates
(50-55% of daily caloric intake)
Foods like:

- whole grains, fruits, vegetables, milk

- Patients should consume low glycemic index foods which are foods ranked by how much they raise blood glucose levels such as: barley, bulgar and couscous

Sugars and sweeteners:

- sucrose intake of up to 10% of your daily caloric intake is acceptable
- the use of artificial sweeteners like saccharin, aspartame, potassium, cyclamates and sucralose is acceptable
- up to 60g of added fructose is okay

Exercise

- Diabetes sufferers need about 150 minutes of physical activity per week, such as:

- Aerobic activity, including brisk walks, dancing, biking, swimming, raking leaves, jogging

- Resistance activities such as weight lifting

Proteins
(15-20% of daily caloric intake)
Foods like:

- fish, lean meats, chicken, beans, lentils

Fats (<30% of daily caloric intake)
Foods like:

- oil, margarine and butter

- People with diabetes should restrict combined saturated fats, polyunsaturated fats and trans fatty acids to <10% of daily consumption

- Consume monounsaturated fats more often and include foods rich in polyunsaturated omega-3 fatty acids

MEDICATIONS

Oral medications

Patients with diabetes have a choice of drugs. Your physician will decide which of them are best for you. Quite often patients are prescribed more than one drug at a time. A few common examples:

- **Sulfonylureas** to stimulate the pancreas and create more insulin. This class of drugs is generally taken one to two times a day, before meals. Some examples are gliclazide, glyburide and glimepiride.

- **Meglitinides** (also called nonsulfonylureas) stimulate the pancreas as well. These drugs are taken before all three meals. They include repaglinide and nateglinide.

- **Biguanides** help lower blood glucose levels by decreasing the amount of glucose the liver makes. They also cause a drop in blood glucose levels by helping muscles absorb insulin. They're usually taken twice daily. Metformin is a biguanide.

- **Thiazolidinediones** reduce glucose production in the liver. They should be taken once or twice daily. Rosiglitazone and pioglitazone are examples of this kind of drug.

- **Alpha-glucosidase inhibitors** lower blood glucose levels by helping the body block the breakdown of starches and some sugars in the intestine. Acarbose is an alpha-glucosidase inhibitor.

Insulin

Because diabetes is a progressive disease, all patients may need to start taking insulin eventually

*Information here has been adapted with permission from:
Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2003 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. *Can J Diabetes*. 2003;27(suppl 2):S1-S152.