

## ENDOCRINOLOGY & DIABETES PROGRAM

### OUTREACH PATIENT A1C REPORT

Your A1C was measured and found to be \_\_\_\_%. This A1C level corresponds to an average blood glucose of \_\_\_\_ mmol/L over the past 2-3 months.

#### What is the A1C?

The A1C (previously called "hemoglobin A1c" or "HbA1c") is a test which measures the amount of glucose attached to the hemoglobin (the iron-containing pigment which carries oxygen) in a person's red blood cells. The higher the average blood glucose, the higher the A1C. Because hemoglobin and the attached glucose circulate in the bloodstream for about 120 days, the lifespan of a red blood cell, the A1C offers us a long-term (2-3 month) estimate of the average glucose that the circulation been exposed to. The A1C should be checked every 3-4 months.

For a person without diabetes, the normal A1C ranges between 4.0-6.0%. The Canadian Diabetes Association suggests a **target A1C of \_\_\_\_\_** for a person aged \_\_\_\_\_. You and your doctor should discuss the realistic A1C target for your situation, which may be influenced by younger or older age, puberty, or a history of diabetes complications, other medical problems or frequent low blood glucose levels.

#### Why is the A1C Important?

A very important study known as the Diabetes Complication and Control Trial demonstrated clearly that for people with diabetes, the chance of developing the complications of diabetes—including kidney, eye, nerve and heart damage—is directly related to the A1C (see figure below).

#### How Can We Improve the A1C?

If the A1C is over the target range, it is important to develop a plan to improve the blood glucose control and reduce the chance of developing problems in the future. This can usually be done by increasing the frequency of blood glucose testing, by more strict attention to following the diabetic mealplan and keeping active, and by making frequent adjustments in insulin to counteract unexpected high blood glucose values. The CDA suggests you achieve a **target blood glucose range of \_\_\_\_\_ mmol/L before meals** for your age. A visit with your family doctor or pediatrician between visits with us should help you keep the blood glucose levels in good control. It's important to note that reducing the A1C by improving blood glucose control is often associated with an increased risk for hypoglycemic reactions, and this should be watched for.

