

**DCCT**

**WHAT THE  
PATIENT NEEDS  
TO KNOW ?**

## INTRODUCTION

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In June 1993 the results of the most important Trial about diabetes ever done were announced. The trial started in 1983. The effects of 2 ways of treatment to avoid or delay the diabetes complications were compared. ■

## WHO CONDUCTED THE DCCT?

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The ten-year Trial was sponsored by the National Institute of Diabetes and Digestive and Kidney Diseases, part of the National Institutes of Health. The Trial included more than 1,400 people with insulin-dependent diabetes at 29 medical centers in the U.S and Canada. ■

## WHY WAS THE DCCT NEEDED?

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The Trial was needed to prove whether control of blood glucose (sugar) levels would slow or prevent complications from diabetes. ■

## HOW WAS THE DCCT CONDUCTED?

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Patients were randomly put into one of the 2 groups: Intensive or Standard treatment. Both groups were regularly examined for the presence or progression of diabetes complications.

The Intensive treatment group took three or more insulin shots a day or used an insulin pump. They also received a great deal of counseling in lifestyle changes such as nutrition and exercise and had to test their blood sugar levels a minimum of four times daily.

Patients in the Standard treatment group took one to 2 insulin shots per day, tested their blood sugar levels once or twice a day, and visited the health care team once every 3 months. ■

## WHAT ARE THE RESULTS OF THE DCCT?

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The DCCT gives us important news for the treatment of insulin-dependent, or type 1, diabetes. The patients in the "tight diabetes control" group who kept their blood sugar levels close to normal by frequent blood sugar testing, several daily insulin shots, and lifestyle changes including exercise and healthier eating had a 60% reduction in their risk for the development and progression of diabetic complications of the eye (retinopathy), kidneys (nephropathy) and nervous system (neuropathy).

These benefits were achieved despite the fact that average blood sugar levels were still about 40% above normal, even for those people practicing tight control. This level was 155 mg/dl for the tight control group compared to 231 mg/dl for the standard control group. Normal blood sugar levels in people without diabetes average about 110 mg/dl.

The results support the American Diabetes Association's position that "tight control" is an important way to delay the onset and dramatically slow the progression of complications from diabetes. The more normal your blood glucose level is, the lower your risk of complications. ■

## WERE THERE ANY COMPLICATIONS OR SIDE EFFECTS OF TIGHT CONTROL IN THE DCCT?

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There was an increased risk of serious hypoglycemic reactions a condition in which blood sugar is extremely low and which requires medical assistance.

And while both groups in the Trial gained weight over time, patients in the Intensive treatment group gained, on average, 10 lbs more than those in the Standard treatment group. ■

## IF I HAVE TYPE 1 DIABETES, WHAT SHOULD I DO?

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The goal for most people with diabetes should be to achieve blood sugar levels as close to normal as possible. However, no one with diabetes should try tight control on their own, nor is tight control the best diabetes treatment for everyone.

Tight control requires the help of a health care team. You and your health care team must work together to

## **I HAVE NON-INSULIN DEPENDENT, TYPE 2 DIABETES. DO THE DCCT'S RESULTS HAVE ANY MEANING FOR ME?**

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Although people with non-insulin dependent diabetes were not studied in the Trial, the American Diabetes Association believes that the effects of better control of blood sugar are also likely to apply to people with this form of diabetes.

Again, tight control is not for everyone and is a treatment that must be carefully decided upon with your health care team. Almost everyone, however, would benefit from healthier eating and increased exercise even if tight control is not best for you. ■

## **ARE THERE PEOPLE WITH DIABETES WHO SHOULD NOT PRACTICE TIGHT CONTROL?**

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Tight control is not recommended for everyone. Young children should not practice tight control because of the danger of hypoglycemia.

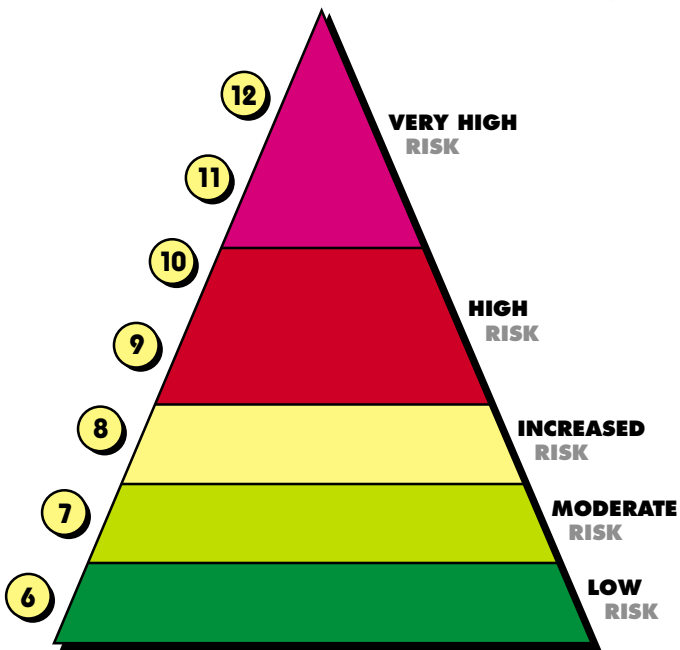
- Tight control is also not recommended for some people who already have serious complications.
- People who have had diabetes for 20-25 years past puberty with few or no signs of complications should probably continue with Standard treatment.
- Treatment for diabetes can depend on many factors, so you should talk to your health care provider to find out the treatment program best for you.

## **HOW LONG DO PEOPLE NEED TO PRACTICE TIGHT CONTROL?**

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For those choosing tight control, the treatment should be practiced for life, in partnership with your health care team ■

# WHERE ARE YOU ?



**CHECK YOUR LONG-TERM  
COMPLICATIONS RISK  
BY YOUR HGB A1c LEVEL**