



Intensive treatment reduces the risk of a wide range of complications by half

The new study is based on data from 160 diabetes patients diagnosed as being at a high risk of developing a wide range of organ damage during the Steno 2 Project in 1993.

At this time, half of the patients were randomly allocated to either a standard treatment group or an intensive treatment group.

The intensive treatment program consisted of more ambitious reductions in blood sugar, cholesterol, and blood clotting, and protein excretion in urine. It also required patients to stop smoking, and for the patient and any spouse to consult with a diet and exercise advisor.

After eight years, both groups were offered the intensive treatment for an additional thirteen years for ethical reasons.

Twenty-one years after the start of the Steno-2 study, twenty-four patients on the standard treatment developed heart failure, while only ten patients in the intensive treatment group developed the condition. That equates to a relative reduced risk of 70 per cent.

*Read More: [New method identifies type 2 diabetics at risk of early death](#)[9]*

#### **Results adopted by international guidelines**

Large [differences emerged](#) [10] between the two patient groups, just four years in to the project.

Patients in the intensive group had half the risk of developing kidney damage, as well as eye and nerve damage, compared to the control group.

After eight years, patients in the intensive group had [half the risk](#) [11] of developing arteriosclerosis.

Results from the Steno-2 project have been adopted by international guidelines for diabetes treatment.

*Read More: [Norwegian researchers make strides toward diabetes cure](#)[12]*

#### **Prolonged life expectancy by eight years**

Two years ago, the scientists followed up with 93 of the original trial participants who were still alive.

Although all patients had subsequently been offered the intensive treatment program, there were still major differences between the groups.

Most significantly, patients in the original intensive group lived on average, 7.9 years longer than patients in the original control group.

In the original control group, [55 out of 80 people died](#) [13], compared to 38 out of 80 in the original intensive treatment group.

“We’ve never seen such a significant extension of life due to an intensive treatment of a chronic disease,” says Pedersen.

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[Read more in the Danish version of this article at Videnskab.dk](#) [14]

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 [Diabetes patients can benefit in many ways by following their doctor's instructions. For example, by reducing their risk of heart failure. \(Photo: Shutterstock\) \[15\]](#)

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[Oluf Borbye Pedersen \[22\]](#) [Troels Krarup Hansen \[23\]](#)

[Reduced risk of heart failure with intensified multifactorial intervention in individuals with type 2 diabetes and microalbuminuria: 21 years of follow-up in the randomised Steno-2 study', Diabetologia \(2018\), doi: 0.1007/s00125-018-4642-y \[5\]](#)

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