

**Author**

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**Title**

Diabetes type two patients can stop insulin treatment when following the low carbohydrate lifestyle

**Abstract**

**Introduction and rationale:** Treatment for type two diabetes (T2dm), which is usually insulin resistance caused by metabolic syndrome, consists mainly of treatment with medication. The treatment protocol starts with a dietary advice which traditionally corresponds to the dietary advice of the World Health Organization (WHO). When effects are still inadequate, medication is prescribed starting with Metformin oral tablets. If the effect still remains inadequate, sulfonylurea derivatives (SU) are added. The next step is starting with insulin injections. Starting with one shot of long-acting insulin per day, which can be extended to three shots of short-acting insulin per day, or an insulin-mix of short- and long-acting insulin twice a day.

**Objectives:** Medicinal treatment of T2dm comes with complications. Patients will gain weight from using SU-tablets and the insulin shots. In the case of T2dm patients are already overweight. Gaining extra weight by medicinal treatment causes health problems to be even further increased, which increases the progressive character of diabetes. Furthermore, increasing overweight causes insulin resistance to increase as well.

**Treatment:** Introducing the low carb lifestyle in the treatment of diabetes type two brings new possibilities. By lowering the carbohydrate intake the need for insulin decreases. When the need for insulin decreases, patients with T2dm can postpone or even stop their medicinal treatment. A second important effect is that the patient will lose weight, breaking the progressive development of T2dm. Blood pressure will decline, and cholesterol levels will improve. Also the patient is less hungry.

**Results:** In my own dietitians' office the focus is mainly on low carb lifestyle and losing weight. By lowering the carbohydrate intake 93% of T2dm patients were able to stop using insulin shots. In all cases the HbA1-c value improved. More studies show similar results. These findings show that reconsidering the present-day diabetes treatment protocol is a serious option.

Keywords: **Low carbohydrate diet; Lifestyle; Insulin resistance; Metabolic syndrome; Obesity; T2DM; Dietitian**

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### **Biography**

Harriet Verkoelen is a Dutch dietitian and nurse diabetes specialist. She has been working in de the field of diabetescare for almost 30 years and has been advising her patients the low carb diet for 25 years. She wrote three books on the low carb lifestyle and she trains dietitians and diabetes nurses how to advice their patients in the low carb lifetyle and how to lower and stop their diabetes type 2 medication.