

## Sesame Oil and Type 2 Diabetes

*Source: Clinical Nutrition*

Diabetes mellitus is a chronic condition in which the body does not produce or does not use insulin effectively. It is not simply hyperglycemia, or too much glucose (sugar) in the blood. Ninety percent of individuals with diabetes have type 2 (NIDDM, non-insulin independent diabetes). Most of these individuals are over 40 years old. Heart disease is the leading cause of diabetes-related deaths, with adults having two to four times higher heart disease death rates than adults without the disease. Patients with diabetes develop more atherosclerosis (hardening of the arteries) than people without diabetes, and some 60-65 percent of patients with diabetes have high blood pressure.

Sesame oil is an edible vegetable oil derived from sesame seeds. Besides being used as a cooking oil in South India, it is often used as a flavor enhancer in Chinese, Japanese, Korean, and to a lesser extent Southeast Asian cuisine. The oil from the nutrient rich seed has been traditionally used for massages. The ancient Indian medical system perceives sesame oil to pacify stress related symptoms and on-going research indicates that the rich presence of anti-oxidants and poly-unsaturated fats in sesame oil could help in controlling blood pressure.

A recent study sought to determine whether sesame oil in combination with diabetes medication is an effective treatment option for people with type 2 diabetes. The study included 60 patients with type 2 diabetes who were divided into three groups. One group received sesame oil alone, the second group took a daily dose of glibenclamide (diabetes medication) and the third group took a combination of sesame oil and glibenclamide. The patients taking sesame oil consumed approximately 35 grams (about 2.4 tablespoons) of oil per day used mainly in cooking or salad preparation. After 60 days, it was found that those who received only sesame oil saw a decrease in total cholesterol of 20 percent, LDL dropped by 33.8 percent and triglycerides dropped by 14 percent. Those who took a combination of diabetes medicine and sesame oil experienced even better results: 22 percent, 38 percent and 15 percent respectively. HDL increased in the groups taking sesame oil by 15.7 percent in the sesame only-group and 17 percent in those taking the combination of oil and drug. Researchers then found that the combination therapy significantly lowered blood sugar and hemoglobin A1c more than either oil alone or drug alone did. These results suggest that sesame oil in combination with diabetes medications is an effective therapy to lower cholesterol and improve diabetes management.<sup>1</sup>

1 Sankar D, Ali A, Sambandam G, Rao R. Sesame oil exhibits synergistic effect with anti-diabetic medication in patients with type 2 diabetes mellitus. *Clin Nutr.* Jun2011;30(3):351-8.