

A recent study has found that low vitamin D levels are correlated with a higher waist circumference and those participants that were low in vitamin D and obese, had a higher incidence of type 2 diabetes than those of normal weight.

## Low Serum Vitamin D Levels May Increase the Risk of Diabetes in Obese Adults

Many previous studies have linked type 2 diabetes, and several other chronic diseases, with low levels of vitamin D. A recent study published in the European Journal of Clinical Nutrition sought to examine the association between serum vitamin D levels and the incidence of Type 2 diabetes.

The MONICA10 cohort study consisted of 2656 adult participants aged 41–71 years who participated in a 10-year follow-up examination during 1993–1994 as part of the MONICA 1 population survey. A total of 2,571 participants were free of diabetes at the beginning of the study and were included in the present research. During an average follow up of 16.4 years, 288 cases of type 2 diabetes were identified.

After adjusting for other related potential risk factors, serum Vitamin D levels were inversely associated with the incidence of diabetes. There was a significant association detected between low vitamin D levels and increased waist circumference (WC). There was a significant correlation to diabetes risk between those with both low vitamin D and increased WC (218 cases) but not in participants with normal WC.

This study found that low Vitamin D levels were independently associated with the incidence of diabetes. However, the inverse association was only found in overweight-obese and not in normal weight individuals, suggesting that obesity may alter the effect of vitamin D status on the risk of diabetes.

L L N Husemoen et al. Serum 25(OH)D and incident type 2 diabetes: a cohort study. European Journal of Clinical Nutrition (2012) 66, 1309–1314