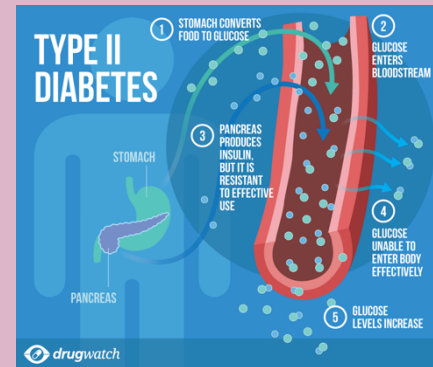


# Diabetes and the Risk of Developing Vascular Dementia: A Systematic Review

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# *Introduction*

Vascular dementia is a subtype of dementia that involves damage to the blood vessels that deliver nutrients to the brain, thereby interfering with cognitive function.

Diabetes occurs when the body is unable to produce enough insulin or unable to use the insulin it makes properly.

This systematic review examines people, ages 65 and older, and how having diabetes influences their risk of developing vascular dementia.

# *Methods*

Databases:

CINAHL

Medline

PubMed

Keywords:

Vascular Dementia

Diabetes

Elderly

## *Results*

- Having Type II Diabetes increases the risk of developing Vascular Dementia. Backman et al., (2010) found that prediabetes and diabetes accelerated the change from mild cognitive impairment to dementia.

Age of Diagnosis of Diabetes patients that were diagnosed diabetes earlier in life were at a much higher risk for developing vascular dementia.

# Results

Treatment and Prevention: *Incidence of Dementia is Increased in Type 2 Diabetes and Reduced by the use of Sulfonylureas and Metformin*, researched and written by Hsu, Leec, Tsaia, Wahlqvista, (2011) found that sulfonylureas and metformin, which are oral diabetes treatment, were individually proven to decrease the development of dementia, while both of them together decrease the risk of dementia by 35% over an 8 year time period.

Neurological Factors Associated with Diabetes: Patients with diabetes had less activity in specific parts of the brain than healthy subjects. The presence of low amounts of BDNF increased the chances of subjects developing dementia.

## *Conclusions*

- There is an association between Type II Diabetes and vascular dementia, but the direct cause is unknown.
- Not enough research has been done to determine if Type II Diabetes increases the risk of developing vascular dementia. There are many additional risk factors that have to be taken into account.

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