

Entry #: 51  
Date: 31 May 2018  
Section: Mediterranean Diet  
Topic: Mediterranean Diet and frailty  
Type: Human Trial



## *OliveNet™ Journal Club*

### **Expert review of literature related to olives and olive oil**

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#### **Title**

**Mediterranean diet and risk of frailty syndrome among women with type 2 diabetes**

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Lopez-Garcia et al

#### **Citation / Year**

(1) / 2018

#### **Keywords**

Mediterranean diet, type 2 diabetes, Nurses' health study, fatigue, low resistance, low aerobic capacity

#### **Summary**

Frailty, which is essentially associated with an increased risk of falls, disability, and hospitalization occurs predominantly in those older people with incidences of approximately, 10% and 25% in those aged >60 years and >80 years, respectively (2-4). It is skewed positively females and those are relatively well educated (4). Typically, it is precipitated by stressors including disease and drug treatments for those diseases. Diabetes and diabetic complications, which are rapidly increasing, represent an important risk factor for frailty, and antidiabetic therapy attenuates frailty presumably by diminishing muscle tone (5, 6). Apart from numerous other health benefits, the Mediterranean diet has been shown to reduce the risk of frailty in susceptible individuals (7-9). This study represents a large, long-term prospective study examining adherence to the Mediterranean diet and risk of frailty.

#### **Key points and implications**

This study is a subset of the large Nurses' Health Study established in 1976, in which 121,700 female nurses were enrolled (aged 30-55 years); medical history, health-related behaviours, and dietary intake were part of baseline and follow-up questionnaires completed by the participants (10). For this study, women (>60 years), with type 2 diabetes (reported between 1992 and 2010), were analysed. In summary, in this study type 2 diabetes was confirmed, dietary intake was assessed with a reliable questionnaires (11), (with a focus on calculating a Mediterranean diet adherence score), and self-reported frailty was evaluated with the use of appropriate FRAIL and Fried scales (12, 13); analysis was completed for 8790 women. Although, there are obvious limitations associated with self-reporting, this is a relatively very large study, with meticulous analyses. The findings clearly highlight a reduction in frailty with increasing adherence to the Mediterranean diet. Indeed, a two-point increase in Mediterranean diet score was associated with a 28% decrease risk in

frailty. Overall, these findings extend the previous findings and more generally, add to the growing list of potential health benefits associated with the Mediterranean diet.

### Related publications

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