

magnesium intake and daytime sleepiness nor night snoring in either gender.

Conclusions: Dietary magnesium intake may have a long term benefits in reducing the likelihood of daytime falling asleep in women.

Funding source(s): N/A

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VENOUS LEG ULCERS AND EFFECTS OF NURITION AND NUTRITIONAL STATUS: A SYSTEMATIC REVIEW

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Background/Aims: Venous leg ulcers (VLU) are the most prevalent lower limb ulcer, however there is little evidence regarding the effect of nutritional status on healing. This systematic review aimed to determine nutritional characteristics of patients with VLUs and effect of nutrition interventions on VLU outcomes.

Methods: Five databases were searched from January 2004 to November 2015 for studies involving adults with VLUs measuring nutritional interventions or characteristics using Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

Results: Of 4542 articles, 16 were included in the review. These included cohort, cross-sectional, case-control and quasi-experimental studies. All participants had C5 or C6 (CEAP classification) ulcers in a range of settings with relatively small sample sizes. Included studies reported a range of wound outcomes. The majority of VLU patients were found to be overweight or obese, which was also identified as a factor for delayed wound healing. Vitamin D and folic acid reported some effect on healing. Dietary intake of omega-3, vitamin C and zinc was low for some patients. Most patients consumed adequate protein. The effect of malnutrition on prevalence and recurrence of VLUs had conflicting Results.

Conclusions: The current evidence suggests VLU patients are more likely to be overweight or obese. There is low-level evidence that vitamin C, vitamin D and zinc improve healing and being underweight may increase VLU recurrence risk. The available evidence is low quality due to the risk of bias and small sample sizes in the included studies. Further high quality studies are required.

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ASSOCIATIONS BETWEEN DIETARY PATTERNS AND DEPRESSIVE SYMPTOMS IN OLDER ADULTS

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Background/Aims: Although several studies have examined associations between dietary patterns and depressive symptoms, few have examined these associations in older adults. This study examines associations between past (2010) and current (2014) dietary patterns and depressive symptoms in community dwelling men and women.

Methods: Adults aged 55 years and over ($n = 4082$, 49% men) were recruited into the Wellbeing, Eating and Exercise for a Long Life (WELL) study in Victoria, Australia. Dietary intake was assessed in 2010 and 2014 by a 111-item food frequency questionnaire. Dietary patterns were determined using principal component analysis in 2010 and replicated in 2014. Depressive symptoms were assessed using the Geriatric Depression Scale in 2014. Associations were assessed using linear regression adjusted for covariates.

Results: Two similar dietary patterns were identified in men and women; a healthy pattern characterised by vegetables, fruit and fish and an unhealthy pattern characterised by processed meats and refined grains. In women a higher current and past healthy pattern was associated with lower levels of depressive symptoms ($\beta = -0.260$; 95%CI: -0.451 , -0.070 ; and $\beta = -0.201$; 95%CI: -0.390 , -0.013 , respectively). An association

between a higher current unhealthy pattern and higher depressive symptoms was also observed also in women ($\beta = 1.367$; 95%CI: 0.679 , 2.055). There were no associations in men.

Conclusions: In older women dietary patterns were associated with depressive symptoms yet these associations were not seen in older men. Interventions are required to further investigate the role of whole diet in depression.

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ADHERENCE TO MEDITERRANEAN DIET; NOT OLIVE OIL CONSUMPTION ALONE PREDICTS HYPERCHOLESTEROLEMIA IN ELDERLY: THE MEDIS STUDY

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Background/Aims: This analysis aimed to compare the role of olive oil consumption with that of Mediterranean diet on their diagnostic value for the presence of hypercholesterolemia.

Methods: Mediterranean islands study (MEDIS) recruited 2749 older (over 65 years of age) individuals between 2005-2015. Recruitment occurred from 21 Mediterranean islands and the rural Mani region (Peloponnesus) of Greece. Dietary habits, energy intake, physical activity status, socio-demographic characteristics (altitude in residing area, lifestyle parameters) and clinical profile aspects (including blood lipids) were measured. The level of adherence to Mediterranean diet was assessed using the *a-priori* index MedDietScore and olive oil consumption was assessed with a validated FFQ. The diagnostic value of the food data was assessed using the AUC for the presence of hypercholesterolemia. The *p* value for the comparison of AUC with 0.5 was performed with Likelihood Ratio test.

Results: From diagnostic value of the presence of Hypercholesterolemia, MedDietScore was the only significant diagnostic tool (AUC = 0.547; $p = 0.001$), but neither the number of olive oil servings per week (AUC = 0.476; $p = 0.096$), nor the mean calories consumed from olive oil daily (AUC = 0.492; $p = 0.560$) were effective diagnostic tools for the presence of Hypercholesterolemia

Conclusions: The overall pattern of Mediterranean diet and not individual foods or food-groups, could be responsible for the protection against CVD risk factors.

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THE EFFECTS OF L-THEANINE AND EGCG ON PALMITIC ACID INDUCED INFLAMMATION IN MOUSE HYPOTHALAMIC NEURONAL CELL LINES (MHYPOE-N42)

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Background/Aims: The consumption of long-chain saturated fatty acids induces hypothalamic inflammation associated with insulin and leptin resistance. In contrast, bioactive compounds such as epigallocatechin gallate (EGCG) and L-theanine (L-THE) were reported to exhibit antioxidant and anti-inflammatory properties. This study determined the effect of EGCG on mitochondria morphology and L-THE on mitochondrial morphology and the expression of pro-inflammatory markers in cultured hypothalamic neurons (mHypoE-N42) after palmitic acid (PA) challenge.

Methods: mHypoE-N42 cells were treated with BSA (50 μ M) or PA (200 μ M) in the presence or absence of L-THE (50 μ M). Semi-quantitative RT-PCR was used to assess the expression of *IL-6* and *TNF α* . For mitochondrial morphology, mHypoE-N42 cells were incubated with BSA (50 μ M) or PA (200 μ M) in the presence or absence of L-THE (50 μ M) or EGCG (50 μ M).