LIFE EXPECTANCY CAN INCREASE BY UP TO 10 YEARS FOLLOWING SUSTAINED SHIFTS TOWARDS HEALTHIER DIETS IN THE UNITED KINGDOM.

Fadnes, LT ; Celis-Morales, C ; Økland, JM ; Parra-Soto, S ; et al.
Nature food. 2023;4(11):961-965

The mortality rate is rising in the United Kingdom (UK) due to poor quality dietary patterns. This research estimated the benefits of sustainably changing the unhealthy dietary pattern to the Eatwell Guide or longevity-associated dietary pattern on life expectancy in the UK. Longevity-associated dietary pattern is based on a moderate consumption of whole grains, fruit, fish and white meat; a substantial consumption of dairy, vegetables, nuts and legumes; a comparatively low consumption of eggs, red meat and sugar-sweetened beverages; and a low consumption of refined grains and processed meat. In UK adults aged 40 years, the change from an unhealthy dietary pattern to the Eatwell guide added 8.9 years in males and 8.6 years in females to their life expectancy. Furthermore, sustained adherence to a Longevity-associated dietary pattern increased life expectancy up to 10.8 years in males and 10.4 years in females. Healthcare professionals can use the results of this research to develop health policies and to understand the beneficial effect of following the Eatwell Guide or longevity dietary pattern in increasing life expectancy in middle-aged men and women in the UK.

CALORIE RESTRICTION MODULATES THE TRANSCRIPTION OF GENES RELATED TO STRESS RESPONSE AND LONGEVITY IN HUMAN MUSCLE: THE CALERIE STUDY.

Das, JK; Banskota, N; Candia, J; et al.
Aging cell. 2023;22(12):e13963
With Expert Review from Chloe Steele

TAKE HOME MESSAGE:
CR can aid weight loss and sustain losses long-term. Some lean muscle loss may also be seen, but this does not mean that muscle function has been compromised.

Reducing calorie intake by 12% has been shown in one randomised control trial (RCT) called the Comprehensive Assessment of Long-term Effects of Reducing Intake of Energy (CALERIE) trial, to result in both fat and muscle loss but without any changes to muscle strength and function. The present study aimed to take 90 of the individuals from the original CALERIE study to understand the mechanisms behind this. The results showed that after 12 months individuals who were given a calorie reduced diet lost significant amounts of weight compared to control and this loss was maintained after 2 years. This included muscle loss, but despite this, there was no change in muscle strength of individuals on calorie reduced diet. Genetic analysis showed that genes are involved in muscle quality and anti-ageing. It was concluded that 2 years of calorie restriction resulted in both fat and muscle loss but did not compromise muscle function. The upregulation of genes involved in muscle quality and anti-ageing may be responsible for this.

EFFECTS OF WHEY AND SOY PROTEIN SUPPLEMENTATION ON INFLAMMATORY CYTOKINES IN OLDER ADULTS: A SYSTEMATIC REVIEW AND META-ANALYSIS.

Prokopidis, K ; Mazidi, M ; Sankaranarayanan, R ; et al.
The British journal of nutrition. 2023;129(5):759-770
With Expert Review from Miranda Harris

Reduced muscle mass and reduction in physical activity may lead to sarcopenia in older people. Age-related sarcopenia is associated with increased systemic low-grade inflammation and obesity. Previous research has shown that supplementation with isolated whey and soy protein reduces the levels of inflammatory cytokines in older adults. This systematic review and meta-analysis investigated the effect of intact whey and soy protein on serum inflammatory markers such as C-reactive protein (CRP), Interleukin-6 (IL6) and TNF-α in older adults. The results showed a significant reduction in circulating IL-6 and TNF-α levels after the supplementation with whey and soy protein. The addition of soy isoflavones resulted in a further decline in serum CRP levels. Subgroup analysis showed that the whey protein supplementation significantly improved sarcopenia and pre-frailty. Healthcare professionals can use the result of this systematic review and meta-analysis to understand the anti-inflammatory properties of intact whey and soy protein and soy isoflavones. However, further robust studies are required to assess the anti-inflammatory properties of whey and soy protein due to the high heterogeneity of included studies in this review.

DIETARY FLAVANOLS RESTORE HIPPOCAMPAL-DEPENDENT MEMORY IN OLDER ADULTS WITH LOWER DIET QUALITY AND LOWER HABITUAL FLAVANOL CONSUMPTION.

Brickman, AM ; Yeung, LK ; Alschuler, DM ; et al.
Proceedings of the National Academy of Sciences of the United States of America. 2023;120(23):e2216932120

“Cognitive ageing” is a term used to describe how some of our cognitive abilities decline during the aging process, independent of late-life cognitive diseases. Because cognitive aging is meaningfully disruptive to our lives, it is biomedically justified to identify its etiologic factors.
Participants were randomly assigned to a 3-year intervention of cocoa extract or a placebo. Results showed that a flavanol intervention-based restoration of memory was observed in the lower tertile of habitual diet quality and in the subset of participants with lower habitual flavanol consumption. The improvement in memory was apparent after 12 months of intervention and appeared to be sustained over the 3 years of follow-up. Authors concluded that habitual flavanol consumption and diet quality at baseline are positively and selectively correlated with hippocampal-dependent memory.
Improvements in the flavanol biomarker over the trial were associated with improving memory.

FOOD FOR YOUR HEALTH