

The average intake of nut products was 5 g/p/d contributing with 1.4% of energy in the national dietary survey among adults 2010 using 2x24h recall.

The proportion of adults reporting to consume unsalted nuts or nut mixes once a week or more increased from 9 til 12% during 2009-2013 according to Norwegian Eating Facts. In 2013 the proportion consuming unsalted nuts never or rarely was 34% and daily 2%.

The proportion that ate salted peanuts at least weekly increased from 8 to 9% during 2009-2013. In 2013 the proportion consuming salted peanuts never or rarely was 32%.

Conclusions: The consumption of nuts is increasing, but it is far from recommended levels. A large proportion of the population rarely consumes nuts.

Oral Abstract 6 - High intensity interval training improves glycaemic control and pancreatic β cell function of type 2 diabetes patients (Per Bendix Jeppesen, Denmark)

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Physical activity improves the regulation of glucose homeostasis in both type 2 diabetes (T2D) patients and healthy individuals, but the effect on pancreatic β cell function is unknown. We investigated glycaemic control, pancreatic function and total fat mass before and after 8 weeks of low volume high intensity interval training (HIIT) on cycle ergometer in T2D patients and matched healthy control individuals. Study design/method: Elderly (56 yrs \pm 2), non-active T2D patients (n=10) and matched (52 yrs \pm 2) healthy controls (CON) (n=13) exercised 3 times (10 \times 60 sec. HIIT) a week over an 8 week period on a cycle ergometer. Participants underwent a 2-hour oral glucose tolerance test (OGTT). On a separate day, resting blood pressure measurement was conducted followed by an incremental maximal oxygen uptake ($\dot{V}O_{2max}$) cycle ergometer test. Finally, a whole body dual X-ray absorptiometry (DXA) was performed. After 8 weeks of training, the same measurements were performed. Results: glycaemic control as determined by fasting venous glucose concentration, end point 2-hour OGTT and glycosylated haemoglobin was significantly reduced ($p<0.05$). Pancreatic homeostasis as determined by homeostatic model assessment of insulin resistance (HOMA-IR) and HOMA β cell function (HOMA-% β) were both reduced significantly ($p<0.05$). Whole body insulin sensitivity as determined by the disposition index (DI) was significantly increased ($p<0.05$). During OGTT, the glucose continuum was significantly reduced at -15, 15 and 120 min ($p<0.05$) and at -10 and 0 min ($p<0.01$) with an additional improvement ($p<0.05$) of its 1st phase (30 min) AUC. Significant abdominal fat mass losses were seen in both groups (T2D: $p<0.01$ and CON: $p<0.05$) corresponding to a percentage change of -17.84 % \pm 5.02 and -9.66 % \pm 3.07, respectively.

Conclusion: These results demonstrate that HIIT improves overall glycaemic control and pancreatic β cell function in T2D patients. Additionally, both groups experienced abdominal fat mass losses. These findings demonstrate that HIIT is a health beneficial exercise strategy in T2D patients.

Oral Abstract 7 – Responders and non-responders – Baseline metabolic condition affects response to resistant starch (Barbara Gower, USA)

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