

## T1:PO.25

### Population survey of physical activity behaviors of obese and non obese Tunisian adults.

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**Introduction:** Tunisia is undergoing a nutritional transition contributing to high prevalences of obesity. As physical activity (PA) is considered an important and modifiable determinant, the objectives were to assess PA levels among adults at the population level and relationships with body mass.

**Methods:** Cross sectional study (2005), national stratified random cluster sample of 35-70 y women (n=3845), and men (n=3503). Type and duration of activities were assessed by a frequency questionnaire developed and validated in the target population. Metabolic equivalents (MET) for each activity enabled estimation of total daily energy expenditure (EE), mean PA level (PAL), and time spent in low (<3 MET), or high intensity (≥6 MET) activities.

**Results:** Mean EE was 2113±384 and 2693±543 kcal/d for women and men respectively with PAL values of 1.75±0.29 and 1.86±0.30 MET. Only 44.4% of women and 58.3% of men reached the recommended PAL≥1.75. Most of the daily EE was spent in low intensity activities (80.7% of waking time in women and 71.5% in men), with more than half of women and men not performing any high intensity activities at all. Obese vs. non obese subjects showed lower daily EE in categories like doing sports, walking or cycling, while the EE spent sleeping, being seated reading or discussing, watching TV/videos, preparing food or doing household chores was higher.

**Conclusion:** These results on a representative sample at national level underline the link between obesity and sedentariness and support workable recommendations of increasing PA in order to slow the rise in prevalences of obesity.

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## T1:PO.26

### Mediterranean-style diet rich in virgin olive oil is associated with higher antioxidant capacity in a high cardiovascular risk population.

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**Introduction** Living organisms have an array of protective antioxidant mechanisms, both for preventing the production of free radicals and for repairing oxidative damage. Mediterranean diet is known to have antioxidant capacities that could reduce oxidative processes. This effect may lead to a reduction in the risk of cardiovascular disease. The aim of this study was to analyze the total plasma antioxidant capacity (AOP) in a randomized dietary trial assessing the effect of a Mediterranean-style diet in high cardiovascular risk patients.

**Methods** A total of 100 high risk subjects mean aged 68 were randomly selected from those participating in the PREDIMED UNAV study after

they were three years in the intervention program. Participants were either following a Mediterranean-style diet with high intake of virgin olive oil (olive oil group) or a conventional low fat diet (control group). The total AOP was evaluated using a commercially available colorimetric assay kit.

**Results** Subjects allocated to the control group and to olive oil group presented an total AOP of 2.09±0.16 and 3.88 ± 0.15 mmol/L respectively, being the difference statistically significant after adjusting for age and sex (p<0.001).

**Conclusion** Our Mediterranean dietary pattern with high intake of virgin olive oil did modify total antioxidant capacity and consequently could reduce the oxidative stress.

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## T1:PO.27

### Alcohol Consumption and Higher Incidence of Impaired Fasting Glucose or Type 2 Diabetes in Overweight and Obese Korean Men

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**Introduction:** The association between alcohol consumption and the development of impaired fasting glucose or diabetes was investigated.

**Methods:** The annual health evaluation data of 2,500 male workers from 2002 to 2006 was reviewed deleting personal identification code. The information contained sex, age, medical history, smoking status, alcohol consumption, participating regular exercise, anthropometric and biochemistry measurement. Impaired glucose tolerance or diabetes was determined when fasting plasma glucose was ≥100mg/dl.

**Results:** 1,717 subjects were eligible after excluding medical history of diabetes or fasting glucose ≥100mg/dl at baseline. As body mass index increased from normal to overweight and obese, the relative risks of its development according to amount of alcohol intake was 0.916 (95% CI, 0.658-1.276), 1.113 (95% CI, 0.763-1.624), 1.591 (95% CI, 1.106-2.287) in group of taking 0.1-14.9 g ethanol/day, 1.159 (95% CI, 0.803-1.672), 1.290 (95% CI, 0.860-1.935), 1.811 (95% CI, 1.216-2.697) in group of taking 15.0-29.9 g ethanol/day, and 1.163 (95% CI, 0.766-1.764), 1.661 (95% CI, 1.067-2.586), 1.737 (95% CI, 1.148-2.629) in group of taking ≥30.0 g ethanol/day each after adjusting age, family history of diabetes, smoking, exercise, serum fasting glucose, aspartate aminotransferase and γ-glutamyltransferase.

**Conclusion:** Higher risk of impaired fasting glucose or diabetes was observed as the amount of alcohol consumption increasing in overweight and obese male (BMI ≥23kg/m<sup>2</sup>) without risk reduction by moderate consumption. Even light drinker with <15 g ethanol/day showed 50% elevated risk in compared with non-drinker in obese group.

## T1:PO.28

### Potential impact of the Choices Programme on nutrient intakes of the Dutch population

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**Introduction:** In May 2006, the Choices Programme was launched in the Netherlands. Products can qualify for a health stamp by meeting pre-set nutritional criteria. The objective of the present study is to assess the potential effect on nutrient intakes in the Dutch after replacing normally