**Energy intake but not macronutrients is associated with fatty liver in severely obese men**

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**Introduction:** Hepatic steatosis is prevalent in obese populations and is included in non-alcoholic fatty liver disease (NAFLD). NAFLD play a deleterious role in risk development related to obesity and are influenced by environmental factors including diet. The aim was to determine the association between energy intake, macronutrients, energy from food groups and hepatic attenuation (HA) measured by computed tomography (CT) in a clinical population with severe obesity.

**Methods:** 252 men and 538 women, BMI, 40.4(±5.7) kg/m$^2$ and 44(±14) years of age were cross-sectional examined by CT. HA-values of ≤40 Hounsfield units indicates hepatic steatosis. A dietary questionnaire was used to assess habitual energy- and macronutrient intake and energy from specific food groups**.** The statistical analyses were performed in men and women separately and adjusted for BMI.

**Results:** Hepatic steatosis was present in 50% and 33% of men and women**.** Energy intake was negatively associated with HA in men (β -0.0038, $p<0.001$) but not in women (β -0.0009, $p=0.28$). No significant associations were found between macronutrients and HA in either gender. In men, energy intake from sandwiches (β -0.0092, $p<0.01$), non-alcoholic beverages (β -0.0107, $p<0.05$) and milk products (β -0.0131, $p<0.05$) was negatively associated with HA. In women, energy intake from porridge and breakfast cereals was positively associated with HA (β +0.0164, $p<0.05$).

**Conclusion:** Targeting energy intake and high energy density foods rather than specific macronutrients were related to fatty liver, at least in severely obese men.

**1. Conflict of Interest:**
None Disclosed

**2. Funding:**
No Fundings