

## PW01-103 - SERUM LEPTIN LEVELS ARE ASSOCIATED WITH LOW SOCIAL TIES AND DEPRESSION

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**Objective:** To examine whether depression or social isolation or the combination of both is associated with high leptin levels.

**Research methods and procedures:** In this cross-sectional study, the study population comprised 1229 subjects. Social network was assessed according to the Social Network Index initially designed for the Alameda study. Depression was assessed using the DEEX scale. Four categories were built: "socially integrated, not depressed", "socially integrated, depressed", "socially isolated, not depressed", "socially isolated, depressed". Serum leptin concentrations were assessed. Logistic regression was performed in men and women separately to investigate the influence of the three different categories "socially integrated, depressed", "socially isolated, not depressed" and "socially isolated, depressed" in comparison with the reference category "socially integrated, not depressed". The probability belonging to the upper 30% of leptin values was modelled. Four models were adjusted for BMI, age, lifestyle factors, psychosomatic complaints and metabolic variables.

**Results:** In men, but not in women a significant effect could be seen. The combination of depressed state and social isolation was associated with a four fold increased risk of belonging to the group with the 30 % highest leptin levels in men, whereas in women odds ratios did not reach significance.

**Discussion:** Men, who were socially isolated and depressed, had an increased risk for high leptin levels. Therefore the combination of social isolation and depression, which is known to be associated with the worst outcome in cardiovascular disease, may have the potential to increase leptin levels in men.