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# 781 - MODIFIABLE FACTORS ASSOCIATED WITH OVERWEIGHT-OBESITY: A REVIEW OF OBSERVATIONAL STUDIES FROM THE SUN COHORT

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## Resumen

Background/Objectives: Obesity affects over 1 billion people worldwide (WHO, 2024), posing a major public health challenge. The SUN cohort (Seguimiento Universidad de Navarra) investigates modifiable factors for long-term weight gain prevention. This narrative review synthesizes 40 SUN publications on overweight/obesity risk.

Methods: Prospective open-enrolment cohort of 23,321 Spanish university graduates (62% women; median follow-up 14 years; 92% retention). Baseline validated 136-item FFQ assessed diet; biennial questionnaires tracked anthropometrics, lifestyles, diseases, quality of life (Ryff scale), and well-being. Incidence of overweight/obesity was analyzed via Cox regression (HRs), logistic models (ORs), adjusted for confounders.

Results: Key protective factors included plant proteins from legumes/nuts/grains (HR = 0.80, 95%CI 0.64-0.98), adherence to Spanish dietary guidelines (HR = 0.78, 0.67-0.91; p-trend = 0.007), high Dietary Obesity-Prevention Score (HR = 0.63, 0.54-0.74; p < 0.001), provegetarian pattern (HR = 0.85, 0.75-0.96; p = 0.014), Mediterranean diet (OR = 0.76, 0.64-0.90), water replacing sugary drinks (OR = 0.82, 0.75-0.90), higher altitude residence (HR = 0.86, 0.77-0.96; p = 0.006), and nuts intake ? 2-3x/week (OR = 0.88, 0.78-0.99) with olive oil showing neutral effect. Risk factors comprised ultra-processed foods (OR = 1.26, 1.10-1.45), white bread ? 2 portions/day (OR = 1.40, 1.08-1.81; p = 0.008), plus fried foods consumption, beer intake, PCBs exposure, long-term contraceptives use, driving, short sleep, naps, away-from-home meals, snacking, and sedentarism.

Conclusions/Recommendations: SUN evidence highlights diet quality (Mediterranean/provegetarian, plant proteins, water), and other lifestyle factors associated with the risk of overweight/obesity or weight gain. Minor lifestyle tweaks offer substantial prevention potential.

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