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Abstract

“Micronutrient Deficiency Risk Groups in Europe:
Adolescents and Elderly”

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One of the aspects current micronutrient research in Europe is focusing on is deficiency risk and prevalence of sub-clinical deficiency among specific population groups. Our research group has been involved in several national and international projects that aimed at getting deeper into the before-mentioned aspects. In the **Healthy Lifestyle in Europe by Nutrition in Adolescents Study**, performed on adolescents aged 12.5 up to 17.49 the overall prevalence for iron depletion was 22.2 %, with iron deficiency anaemia present in around 2%. More than half of the adolescents had sub-optimal vitamin D levels. Obesity has been linked to lower levels of vitamin B₁₂, vitamin C, vitamin D and beta-carotene, and higher levels of homocystein and prooxidative status. In several European countries, a high prevalence of sub-clinical vitamin B₁₂ deficiency has been observed in subjects aged 60 years and more, whereas low folate and vitamin D levels have been detected in subjects at all ages. Some gender effect has also been described, as at all ages women have better vitamin B₁₂, vitamin C and vitamin E status. Additional lifestyle factors influence micronutrient status. Smokers have lower folate and vitamin C levels than non-smokers, even at young ages. Low levels of physical strength and cognitive function have been associated with vitamin B₁₂ deficiency in Spanish institutionalized elderly. Specifically in elderly people, the nutrient – drug interaction should be taken into account as most of the elderly people living in Europe are on chronic medication.