

The Impact of Coffee Consumption to Body Mass Index and Body Composition

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Abstract : Coffee is one of the most frequently consumed beverages in the world but still its effects on human organism are not completely understood. Coffee has also been used as a method for weight loss, but its effectiveness has not been proved. There is also not similar comprehension in classifying overweight in choosing between body mass index (BMI) and fat percentage (fat%). The aim of the study was to determine associations between coffee consumption and body composition. Secondly, to detect which measure (BMI or fat%) is more accurate to use describing overweight. Altogether 103 persons enrolled the study and divided into three groups: coffee non-consumers (n=39), average coffee drinkers, who consumed 1 to 4 cups (1 cup = ca 200ml) of coffee per day (n=40) and excessive coffee consumers, who drank at least five cups of coffee per day (n=24). Body mass (medical electronic scale, A&D Instruments, Abingdon, UK) and height (Martin metal anthropometer to the nearest 0.1 cm) were measured and BMI calculated (kg/m²). Participants' body composition was detected with dual energy X-ray absorptiometry (DXA, Hologic) and general data (history of chronic diseases included) and information about coffee consumption, and physical activity level was collected with questionnaires. Results of the study showed that excessive coffee consumption was associated with increased fat-free mass. It could be foremost due to greater physical activity level in school time or greater (not significant) male proportion in excessive coffee consumers group. For estimating the overweight the fat% in comparison to BMI recommended, as it gives more accurate results evaluating chronic disease risks. In conclusion coffee consumption probably does not affect body composition and for estimating the body composition fat% seems to be more accurate compared with BMI.

Keywords : body composition, body fat percentage, body mass index, coffee consumption

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