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## EFFECTS OF FATS AND FATTY ACID INTAKE ON BLOOD PROFILES IN HYPERLIPIDEMIC INDIVIDUALS

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Cardiovascular diseases (CVD) and CVD related deaths are the leading cause of death globally<sup>1</sup>. All saturated fatty acids, with the notable exception of stearic acid raise low-density lipoprotein (LDL) cholesterol levels. However, polyunsaturated fatty acids (PUFAs), lower LDL cholesterol<sup>2</sup>. Walnuts which is containing one of the highest PUFAs content and causing it to have a unique profile, which may improve blood lipids<sup>3</sup>. Study has been carried out for 6 weeks with a total 37 participants. Participants were have mild to moderate hyperlipidemia who were not taking any lipid-lowering medications. The study was designed in two parallel arms and participants were randomly assigned to control group (n=17) or study group (n=20). All participants in both group were asked to adapt to American Heart Association (AHA) diet. In intervention group they have consumed 40g/day walnut. Blood samples were collected from fasting patients at the start and at the end of the study. Chi-square statistical analysis were used for the qualitative data comparison. Paired and independent t-test were used to assess the effects of walnut consumption on blood lipids. Before and after the study, participants in both group were have similar body composition, total energy intake and total energy expenditure ( $p > 0.05$ ). At the end of the study, depending on the adoption to AHA diet advises, participants in both groups lowered their total and LDL cholesterol levels. Participants who were in the study group have been lowered their total cholesterol and LDL cholesterol levels respectively by 5.3% and 8.8%. Study group participants which were increased their unsaturated fatty acid intake via walnut consumption, tends to decrease, triglycerides, LDL and VLDL cholesterol ( $p = 0.03, r = -0.68$ ) while control groups' blood lipids did not show any difference since their unsaturated fat intake did not change compared to the beginning of the study. Results of this study indicated that incorporation of regular and moderate amount of walnut into diet can decrease blood lipids and prevent cardiovascular disease.

### Biography

Gözde Okburan has been graduated from Nutrition course from Health Sciences Department in Kingston University, London as a Nutritionist. After that she has been done further studies for two more years in Eastern Mediterranean University in order to graduate from a dietetic course. Later, she obtained her post-graduation from Eastern Mediterranean University with subjects Cardiovascular disease and nutrition and then started working at a private hospital as a nutritionist and dietitian. Nowadays, she is doing her PhD in Acibadem University, where she has continued her research. Presently she has been working at the Eastern Mediterranean University, Famagusta.

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