

Effects of Regular Moderate Exercise on Arterial Stiffness and PTX3 Protein and Some Cardiac Parameters

**Mehmet Karakus¹, Nazan Dolu², Tolga Saka³, Nihat Kalay⁴, Soner Akkurt⁵, Aysun Cetin⁶, Ali
Dogan⁷ and Sami Aydogan⁸**

¹*Erciyes University Medical Faculty, Department of Sports Medicine 38039, Kayseri, Turkey
Telephone: +90 5319931767, E-mail: memkar77@hotmail.com,*

²*Erciyes University Medical Faculty Departments of Physiology 38039, Kayseri/ TURKEY
High Altitude and Sports Science Research and Implementation Center (HASIC) 38039,
Kayseri, Turkey
E-mail: dolu@erciyes.edu.tr*

³*Bezmialem Vakif University Medical Faculty Department of Sports Medicine, 34093,
Istanbul, Turkey
E-mail: tolgasakamd@gmail.com/tsaka@bezmialem.edu.tr*

⁴*Erciyes University Medical Faculty Department of Cardiology 38039, Kayseri, Turkey
E-mail: nihatkalay@hotmail.com*

⁵*Erciyes University Medical Faculty Department of Sports Medicine 38039, Kayseri, Turkey
E-mail: drsonerakkurt@hotmail.com*

⁶*Erciyes University Medical Faculty Department of Biochemistry 38039, Kayseri, Turkey
E-mail: aysuncetin@erciyes.edu.tr*

⁷*Erciyes University Medical Faculty Department of Cardiology 38039, Kayseri, Turkey
E-mail: drdogan75@yahoo.com*

⁸*Erciyes University Medical Faculty Departments of Physiology 38039, Kayseri, Turkey
High Altitude and Sports Science Research and Implementation Center (HASIC) 38039,
Kayseri, Turkey
E-mail: aydogans@erciyes.edu.tr*

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ABSTRACT This study intends to show some of the effects of long-term and regular moderate exercise on arterial stiffness, Pentraxin 3 (PTX3) levels and some cardiac parameters in individuals of middle and advanced age. Twenty mountaineers and twenty sedentary individuals were subjects of this study. Each mountaineer and the individuals in the control group were measured for lipid profile, complete blood count, and underwent echocardiography, and exercise stress test. Central and peripheral pulse wave velocity was measured. The plasma Pentraxin 3 protein was assayed. Metabolic equivalent and PTX3 levels were found to be significantly higher in mountaineers, compared to the sedentary group. Femoral-ankle pulse wave velocity, carotid-femoral pulse wave velocity, left ventricular end-systolic diameter and the neutrophil to lymphocyte ratio were found to be significantly lower in mountaineers, compared to the sedentary group ($p < 0.05$). Long-term and regular, moderate exercise significantly decreases indicators of systemic inflammation and arterial stiffness.