

**The Effects of Detraining in Young Elite Wrestlers:
Malondialdehyde, Total Oxidant Status, Total
Antioxidant Status, Glutathione****Erkan Demirkan**

The School of Physical Education and Sports, Hitit University, Çorum, Turkey
Telephone: +90 364 2277923-3766
E-mail: erkandemirkan_1979@hotmail.com, erkandemirkan@hitit.edu.tr

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ABSTRACT The aim of the present study was to investigate the effects of a 12-week detraining period after a 9-month multicomponent wrestling training program on total antioxidant status (TAS), glutathione (GSH), malondialdehyde (MDA) and total oxidant status (TOS) and some markers of performance. Fourteen young wrestlers (age: 14.9±1.1 years) and twelve non-athletes (14.5±0.5 years), making a total of twenty-six, participated in the study. MDA and TOS were significantly higher during competition period in wrestlers compared to control ($p < 0.05$). GSH was significantly higher in control group compared to wrestlers during competition period. There was no significant difference in TAS between controls and wrestlers during the competition period ($p > 0.05$). The results of this study indicate that strenuous exercise leads to an increase in the production of MDA and TOS in wrestlers. Despite the detraining period, MDA and TOS concentrations were still higher in wrestlers compared to the control group.