Serum sex-hormone binding globulin and cortisol concentrations are associated with overreaching during strenuous military training

Tanskanen, Minna; Kyröläinen, Heikki; Uusitalo, Arja; Huovinen, Jukka; Nissilä, Juuso; Kinnunen, Hannu; Atalay, Mustafa; Häkkinen, Keijo

Title: Serum sex-hormone binding globulin and cortisol concentrations are associated with overreaching during strenuous military training

Year: 2011

Version:

Please cite the original version:

All material supplied via JYX is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of the repository collections is not permitted, except that material may be duplicated by you for your research use or educational purposes in electronic or print form. You must obtain permission for any other use. Electronic or print copies may not be offered, whether for sale or otherwise to anyone who is not an authorised user.
Figure 1.

a) Testosterone (nmol·L⁻¹)

b) SHBG (nmol·L⁻¹)

c) Cortisol (nmol·L⁻¹)

d) IGF-1 (pg·mL⁻¹)

***, ¤¤¤***, ¤¤¤ *,
Figure 2.

Change in response (%)

- Before
- After 4 weeks
- After 7 weeks

Testosterone
- ^^^
- ^^ and *

Cortisol
- ^^
Figure 3.

Sum of the symptoms scores

Before  After 4  After 6  After 7  After 8
Figure 4.
Figure 5.

- **a)** VO$_2$max (mL·kg$^{-1}$·min$^{-1}$)
- **b)** Testosterone/cortisol ratio
- **c)** Testosterone (nmol·L$^{-1}$)