DOI: 10.7860/JCDR/2026/88435.22908 Abstract No.: 62

Exercise Induced Changes in Testosterone: A Systematic Review of Different Exercise Methods

HIMANSHU[1], AMIT SARAF[2], POOJA ANAND[3], HIMANSHU GAKHAR[4]

ABSTRACT

Introduction: Testosterone marked as a performance pointer so it has become crucial to look towards the physiological measures with physical outcomes. Diverse influence of testosterone and other hormones from the existing literatures marks it perfect that variability arises from the exercise either to lower or higher adjacent. The adaptations observed in notable studies are variable and dictating the part to detect further because of its lower side by some trainings. Tapering shows its own impact among athletes and ordinary population and makes clear that the variability arises from different levels of trainings and their specificity.

Aim: This systematic review aimed to discover a cumulative impact of various trainings or exercise methods on the biochemical levels of testosterone.

Material and Methods: Various studies were collected from different databases and their engagement was done according to titles and their respective data with registering on review portal (PROPSPERO). Various quality assessment tools were used i.e. Cochrane risk of bias II and PeDRo scale for minimising the inaccuracies and appropriate estimates of data. PICO framework was used to incorporating the studies in analysis and PRISMA approach was used for inclusion.

Results: According to studies searched and included in review, the observation of studies was that there was a significant rise in testosterone, cortisol and other physical measures. Variability was observed in tapering type of training because they were also showing deterioration. Maximum studies favors the risen level of testosterone and significance was observed below the value of ($p<0.005$). Cortisol value were variable among the older and female population incorporated by researchers.

Conclusion: The suggested data concluded that the changes in values of various biochemical markers i.e. testosterone, cortisol, and other hormones shows a significant variability in different exercise conventions.

Keywords: Hormones, Training, Tapering

PARTICULARS OF CONTRIBUTORS:
1. PhD Scholar (Sports Physiotherapy), Teerthankar Mahaveer University, Moradabad, Uttar Pradesh, India.
2. Professor and Head, Department of Orthopedics, Teerthankar Mahaveer University, Moradabad, Uttar Pradesh, India.
3. Professor and Dean, School of Physiotherapy, SGT University, Budhera, Gurugram, Haryana, India.
4. Assistant Professor, School of Physiotherapy, SGT University, Budhera, Gurugram, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Mr. Himanshu,
PhD Scholar, Department of Physiotherapy, Teerthankar Mahaveer University, Moradabad-244001, Uttar Pradesh, India.
Email: himanshurakheja999@gmail.com