

Short Communication

Copyright © Haniel Fernandes

It Is Possible to Measure the Internal Training Load Of Resistance Athlete Using the Etrimp Method

Haniel Fernandes*

Estacio de Sa College, Nutrition department, Fortaleza, Ceara, Brazil

*Corresponding author: Haniel Fernandes, Estacio de Sa College, Nutrition department, Fortaleza, Ceara, Brazil.

To Cite This Article: Haniel Fernandes*. It Is Possible to Measure the Internal Training Load Of Resistance Athlete Using the Etrimp Method. Am J Biomed Sci & Res. 2023 20(4) AJBSR.MS.ID.002739, DOI: 10.34297/AJBSR.2023.20.002739

Introduction

The Training Impulse (TRIMP) can be used to measure Internal Training Load (ITL) and is obtained through wearable technology, such pulse monitors [1]. One of the formulas for obtaining an internal load value using the TRIMP method requires the time in each heart rate zone during a given exercise. Edward proposed eTRIMP method which the ITL result is determines by measuring a product of the accumulated training duration in minutes of 5 HR zones by a coefficient related to each zone (50 to 60% of HRmax x 1; 60 to 70% of HRmax x 2; 70 to 80% of HRmax x 3; 80 to 90% of HRmax x 4; and 90-100% of HRmax x 5), a model which has a relationship moderate to large between measures of training load [2]. Including, since eTRIMP does not require an exercise test, it is more easily implementable in large studies [3]. With this in mind, as the eTRIMP method can be used to evaluate internal training load, has easy reproducibility (any individual can easily access the results of their activity by a simple math formula), does not require an exercise test and is obtained through wearable technology like pulse monitors, it becomes It is interesting to discuss its use for individuals involved in bodybuilding, as a way of offering another valid tool for analyzing training performance.

Discussion

Research has demonstrated that eTRIMP is ITL assessment model and can be used to compare internal load into training and competitions [4]. Evaluating the results through Arbitrary Units (AU) and offering analysis parameters of what was accomplished at the event. The eTRIMP use also was demonstrated in the comparison maximal oxygen consumption into athletes [5]. Besides that, eTRIMP has been used to compare the training characteristics of junior and professional athletes divided into age-related categories [6]. A prospective cohort study dose-response relationship between training load and anaerobic performance in female athletes suggested a curvilinear relationship the variance in changes of peak power output to eTRIMP method during a competition [7]. Demonstrating that this method can be capable of evaluating internal loads at different intensities, can correlate different levels of capacity between individuals, can used by to compare the internal training load athletes of different age groups, and can suggested curvilinear in changes of peak power output into female athletes. Therefore, eTRIMP is seeming a method of evaluating internal training load that can be applied in various ways in various sports, provided wearable technology is used, such as pulse monitors for example. Thus, the coaches should aim to integrate these individualized measures of training load into their daily practices to better inform daily and weekly loading paradigms and associations with fitness improvements [8]. In summary, the eTRIMP used in resistance athletes may be used, since coaches could apply this method in the training week of their athletes to calculate the internal load of each training and periodize the loads during the week.

Acknowledgements

None.

Conflicts of interest

The author declares that he has no competing interest.

References

- 1. Gardner C, Navalta JW, Carrier B, Aguilar C, Perdomo Rodriguez J (2023) Training Impulse and Its Impact on Load Management in Collegiate and Professional Soccer Players. Technologies 11.
- Jurasz M, Boraczyński M, Wójcik Z, Gronek P (2022) Neuromuscular Fatigue Responses of Endurance- and Strength-Trained Athletes during Incremental Cycling Exercise. Int J Environ Res Public Health 19(14): 8839.
- 3. Dausin C, Ruiz Carmona S, De Bosscher R, Herbots L, Heidbuchel H, et al. (2023) A semi-automatic tool to quantify training load in endurance athletes. Eur J Prev Cardiol 30: 157-158.



- Leo P, Spragg J, Simon D, Lawley JS, Mujika I (2020) Training Characteristics and Power Profile of Competitive Season. Sports 8: 167.
- Mckee JR, Wall BA, Peiffer JJ (2021) Temporal Location of High-Intensity Interval Training in Cycling Does Not Impact the Time Spent Near Maximal Oxygen Consumption. Int J Sports Physiol Perform 16(7): 1029-1034.
- Gallo G, Leo P, March MM, Giorgi A, et al. (2023) Differences in Training Characteristics Between Junior, Under 23 and Professional Cyclists. Int J Sport Med 43(14): 1183-1189.
- Huang X, Wang G, Zhen L, Zhao J GB (2022) Dose-response relationship between training load and anaerobic performance in female short-track speed skaters: A prospective cohort study. Physiol Behav 254: 113909.
- 8. Shane Malone, Brian Hughes, Kieran Collins, Ibrahim Akubat (2020) Methods of Monitoring Training Load and Their Association with Changes Across Fitness Measures in Hurling Players. J Strength Cond Res 34: 225-234.