

## Book review: Carreras, D. & Ballester, D. (2022). *Entrenamiento neuromuscular. Una nueva aportación al rendimiento deportivo*

Xavier Peirau<sup>1</sup> 

<sup>1</sup>National Institute of Physical Education of Catalonia (INEFC), University of Lleida (UdL), Lleida (Spain).



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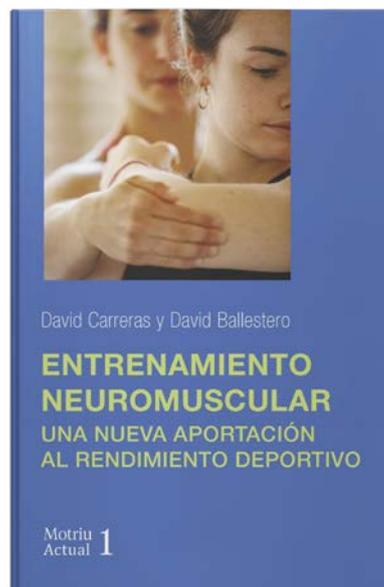
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The book *Neuromuscular training* is a didactic tool aimed at all physical exercise professionals dedicated to sporting performance, with the aim of guiding professionals' intervention from both a performance optimisation and a preventive perspective. The text presents a point of convergence between the contributory paradigm and functional training, and its content is based on the understanding of the athlete's body as a systemic complex subjected to the high demands of sporting performance, which often force it to exceed the threshold of tolerance of its own capabilities. This can lead to imbalances in the neuromuscular system that affect mobility, stability or the execution of the specific technique.



**ENTRENAMIENTO  
NEUROMUSCULAR  
UNA APORTACIÓN AL  
RENDIMIENTO DEPORTIVO**  
*NEUROMUSCULAR TRAINING. A NEW  
CONTRIBUTION TO SPORTING PERFORMANCE.*

David Carreras and David Ballester

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In the context of physical exercise and sport, it is accepted that the concept of neuromuscular training is associated with the set of methods that aim to improve communication between the muscle and the central nervous system in order to enhance the efficiency of the specific actions required by the sporting discipline. This approach allows for a wide range of possibilities to address the optimisation of neuromuscular connectivity. This can include either exercises based on external stimuli that elicit involuntary responses or exercises based on internal commands that trigger voluntary responses.

The Neuromuscular Exercise Sequence<sup>©</sup> is the approach that, based on voluntary exercise, brings together assessment techniques and training methods that favour the adequate control of all the neuromuscular processes for the correct execution of the athlete's movement.

The structure of the book presents, at the beginning, the theoretical construct on which the NES<sup>©</sup> is based and the way in which it justifies its double aspect: optimisation and prevention. It highlights the need for the athlete's training to be approached from a much broader perspective than the mere response to a functional action. And it places control of the movement at the starting point. The second

chapter presents the techniques for detecting, restoring and maintaining possible muscular weaknesses and instabilities, assessed by means of simple tests to determine the level of control of the muscle involved. The third part focuses on how to assess and improve the level of movement control when the voluntary command involves the participation of muscle chains. The fourth chapter presents different systems and methods of functional movement assessment, some of them with obvious origins in therapeutic techniques and others with a clear influence of North American functional training trends. The last chapter discusses how the strengthening of the myotendinous complex can be improved through strength training methods, which allow the optimisation of muscle capacity at the moment of tension generation.

It is without doubt a book that will not leave the reader indifferent and will offer a more complete and coordinated vision of the training of the muscular system and the nervous system.

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