

## Editor's Note

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The position paper of the European Interdisciplinary Society for Clinical and Sports Application (EISCSA) entitled "Muscle Imbalances – Fact or Fiction?" is an important and timely document regarding what may be described as the most critical issue in interpretation of muscle performance testing, namely, the meaning of imbalance. Regarding this issue, one point is fairly clear: the way in which we assess performance has for the last 30 years been firmly established, i.e. we do it instrumentally and among all existing methods, isokinetic dynamometry is the standard tool. However, imbalance engulfs more than what meets the eye. For instance and relating to a methodological aspect that has far reaching consequences, if one refers to the strength of a muscle/muscle group in the involved extremity vs. its uninvolved counterpart, should one use the *ratio* or the *difference* between the measured strengths? Another issue relates to the actual types of imbalances, namely, in addition to the one above, the performance of the agonist vs. the antagonist either as a simple ratio (difference) or in terms of the dynamic control ratio (antagonist<sub>ecc</sub> vs. agonist<sub>con</sub>), the strength of the muscle in higher velocities vs. lower velocities etc. In addition, imbalance should equally relate to other relevant output parameters such as mechanical power. It therefore appears that 'imbalance' is a highly involved entity which may not be viewed through a narrow prism.

To address some of the issues emerging from the above position paper, I have asked Professor David Perrin, Dean of the School of Health and Human Performance at the University of North Carolina/Greensboro and one of the world leaders in muscle performance research and applications, to write a short commentary. Professor Perrin offers a fresh and intriguing look which, together with the main paper, constitutes a valuable addition to our understanding of the points involved.

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