

Kevin Sauer/Tanja Kunstmann/Björn Wieland/Karen Zentgraf

RICHTUNGSWECHSEL IM VOLLEYBALL: IT'S ALL ABOUT SPEED!?

Literatur

Aloui, G., Hammami, M., Fathloun, M., Hermassi, S., Gaamouri, N., Shephard, R. J. & Chelly, M. S. (2019). Effects of an 8-week in-season elastic band training program on explosive muscle performance, change of direction, and repeated changes of direction in the lower limbs of junior male handball players. *Journal of Strength and Conditioning Research*, 33 (7), 1804-1815.

Beato, M., Bianchi, M., Coratella, G., Merlini, M. & Drust, B. (2018). Effects of plyometric and directional training on speed and jump performance in elite youth soccer players. *Journal of Strength and Conditioning Research*, 32 (2), 289-296.

Bloomfield, J., Polman, R. & O'Donoghue, P. (2007). Physical demands of different positions in FA premier league soccer. *Journal of Sports Science & Medicine*, 6 (1), 63-70.

Bourgeois, F., McGuigan, M., Gill, N. & Gamble, P. (2017). Physical characteristics and performance in change of direction tasks: A brief review and training considerations. *Journal of Australian Strength and Conditioning*, 25 (5), 104-117.

Cicchetti, D. V. & Sparrow, S. S. (1981). Developing criteria for establishing interrater reliability of specific items: Applications to assessment of adaptive behavior. *American Journal of Mental Deficiency*, 86, 127-137.

De Villarreal, E., Byrne, P. & Ramirez-Campillo, R. (2022). Change of direction ability as a sensitive marker of adaptation to different training configurations, and different populations: Results from four experiments. *Journal of Human Kinetics*, 85 (1), 63-73.

Dos' Santos, T., Thomas, C., Comfort, P. & Jones, P. A. (2018). The effect of angle and velocity on change of direction biomechanics: An angle-velocity trade-off. *Sports Medicine*, 48, 2235-2253.

Hileno, R., González-Franqué, M., Iribar, A., Laporta, L. & García-de-Alcaraz, A. (2023). Comparison of rally length between women and men in high-level Spanish volleyball. *Journal of Human Kinetics*, 89 (doi: 10.5114/jhk/167053).

Martin-Moya, R. & González-Fernández, F. T. (2022). Test for the improvement and evaluation of change of direction in team sports: A systematic review. *Journal of Physical Education and Sport*, 22 (7), 1716-1722.

Morgan, O. J., Drust, B., Ade, J. D. & Robinson, M. A. (2021). Change of direction frequency off the ball: New perspectives in elite youth soccer. *Science and Medicine in Football*, 6 (4), 473-482.

Müller, C., Willberg, C., Reichert, L. & Zentgraf, K. (2022). External load analysis in beach handball using a local positioning system and inertial measurement units. *Sensors*, 22:3011 (doi: 10.3390/s22083011).

Nimphius, S., Callaghan, S. J., Spiteri, T. & Lockie, R. G. (2016). Change of direction deficit: A more isolated measure of change of direction performance than total 505 time. *Journal of Strength and Conditioning Research*, 30 (11), 3024-3032.

Nygaard Falch, H., Gulsteig Rædergård, H. & van den Tillaar, R. (2019). Effect of different physical training forms on change of direction ability: A sys-

tematic review and meta-analysis. *Sports Medicine – Open*, 5 (1):53 (doi: 10.1186/s40798-019-0223-y).

Sugiyama, T., Maeo, S., Kurihara, T., Kanehisa, H. & Isaka, T. (2021). Change of direction speed tests in basketball players: A brief review of test varieties and recent trends. *Frontiers in Sports and Active Living*, 3:645350 (doi: 10.3389/fspor.2021.645350).

Taylor, J. B., Wright, A. A., Dischiavi, S. L., Townsend, M. A. & Marmon, A. R. (2017). Activity demands during multi-directional team sports: A systematic review. *Sports Medicine*, 47, 2533-2551.

Young, W. B., Dawson, B. & Henry, G. J. (2015). Agility and change-of-direction speed are independent skills: Implications for training for agility in invasion sports. *International Journal of Sports Science & Coaching*, 10 (1), 159-169.

Young, W. B. & Murray, M. P. (2017). Reliability of a field test of defending and attacking agility in Australian football and relationships to reactive strength. *Journal of Strength and Conditioning Research*, 31 (2), 509-516.

Willberg, C., Kohler, A. & Zentgraf, K. (2022a). Construct validity and applicability of a team-sport-specific change-of-direction test. *Journal of Human Kinetics*, 85, 115-126.

Willberg, C., Wellm, D., Behringer, M. & Zentgraf, K. (2022b). Analyzing acute and daily load parameters in match situations – a comparison of classic and 3x3 basketball. *International Journal of Sports Science & Coaching*, 18 (1), 207-219.

Korrespondenzadresse

Prof. Dr. Karen Zentgraf, Goethe-Universität Frankfurt, Institut für Sportwissenschaften, Arbeitsbereich Bewegungs- und Trainingswissenschaft.
E-Mail: zentgraf@sport.uni-frankfurt.de

Summary

Changing direction in volleyball: It's all about speed!?

The aim of this article is to systematically observe, count and describe changes of direction in the semi-finals and finals of the last Olympic Games in men's and women's volleyball. On this basis, specific findings for the training of directional changes in volleyball will then be developed.