The relationship between posture and performance in the women’s water polo

Salvatore Napolitano
Parthenope University of Naples, Italy

This study examines the incidence of postural aspects on the wellness status and performance of 14 women water polo players in the Italian A1 Championship. The research focuses on assessing the 3D detection of the surface of the athletes’ trunk in order to detect the state of their vertebral column and evaluate the incidence of postural problems in water performance. The object of investigation is the ability of adapting the athletes’ body in water in order to adjust and compensate the pain effects of pathological curves such as kyphosis, lordosis and scoliosis. The “Spinometria Formetric” method allows the quick detection of the 3D morphology of the trunk, with extreme accuracy, with a margin of error of less than 0.2 mm, very fast, in only a few minutes for the entire procedure and in conditions of safety due to the non-invasive character of that procedure. The Formetric check-up provides a series of indicators which contribute to a detailed assessment of the subjects’ posture, thus allowing a complete clinical examination with quantitative elements. The data collected show that the pathological curves observed in athletes may be compensated by other adjustments of the body, produced in vigorous in water exercise and have no effect on the state of wellness or on performance, in cases where states of soreness resulting in lower performance levels have been detected in subjects who had no pathological curves.