

## Postural control in order to prevent chronic locomotor injuries in top level athletes

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### SUMMARY

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Chronic injuries of the locomotor apparatus represent the main cause of drop-out among top level gymnasts. The aim of the present paper was to verify whether the postural control, investigated by using an integrated approach and accordingly optimized, could be an effective tool for the secondary prevention of training-related disorders of the locomotor apparatus, in a cohort of 20 young female athletes practicing rhythmic gymnastic at top level. After a preliminary medical consultation all the subjects underwent a static and dynamic baropodometric test, an ophthalmological and a dental screening. Then athletes were given prescriptions based upon the results of the above named examination. After 6 months, symptoms were completely disappeared in 80% and remarkably improved in 20%, and at baropodometric test, the contact duration as well as the contact surface, the max and mean contact pressure were significantly increased in all the athletes. Our data show that the proposed integrated approach is actually an effective tool for the secondary prevention of training related disorders of the locomotor apparatus.