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Abstract

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work spezific prevention of spine dysfunction and disorders by musicians

Spine Load

Musicians belong to a group of professionals, which suffer under high spine loads by playing their instruments. This happens often before their spine is fully developed. Normally they start playing instruments at an age of six to eight years. Later on they often play up to 6 hours a day during their visit of a music college or an university. The heaviest loads are reached during the early professional years at an age of 25 to 35.

Up to now, the influence of heavy loads on the not fully developed spine of musicians is not yet investigated sufficiently. First studies are available only in the field of craniomandibular dysfunctions by wind players and violinists. Thereby, it is important that these results are not representative for the class of professional musicians but for specific instruments.

Spine loads are different for orchestra players, students and teachers with respect to their qualitative and quantitative properties. Nevertheless, they sum up to comparable numbers of clinical dysfunctions.

Functional Diagnostics

Today, it is possible to perform instrument specific functional diagnoses of the spine. This is essential for the development of

- preventive measures at colleges and universities,
- regenerative measures with respect to secondary and tertiary prevention and

- ergonomic musical instruments.

Thus, functional diagnosis is essential for therapy planning of spine disorders and diseases.

Measures and methods of instrument specific functional diagnosis are being presented.

Prevention

Meanwhile it has been realised, that a general health prevention of musicians has to be accompanied by a load specific prevention.

General preventive measures for musculoskeletal system aim primarily at unspecific loads of daily living. However, the load specific prevention is necessary to deal with the specific demands of musicians successfully.

In general, training is recommended to strengthen the human musculoskeletal system. However, it is not adequate to solve the specific spine problems of musicians. In this case specific preventive programmes are required with respect to the specific instruments played by the musicians.

Investigating general loads of musicians do not consider the instrument and age specific loads of the spine and the musculoskeletal system respectively.

In future, it is important to think more about prevention and to oblige both the health insurance organisations/cost units and medical institutions to investigate and evaluate load specific preventive measures in connection with functional diagnosis.