

What is Music Physiology?

Music Physiology focuses on research and teaching of the human being's functions in music making. It contributes to the prevention and treatment of health problems related to playing an instrument and/or singing. The discipline's aim is to lay a foundation of physiological concepts underlying practicing and teaching. Music physiology has made a significant contribution towards performance and self-esteem of musicians facing an increasingly competitive environment. The steadily growing number of participants, both in curricular courses and continuing education on Music Physiology, as well as the success of these participants in competitions, auditions and exams are both indicator and proof for the discipline's value.

Within the framework of a large research project on task-specific learning of musicians funded by the Swiss National Science Foundation (SNF), the Swiss University Centre for Music Physiology (SHZM) collaborates with the Zurich University of the Arts (ZHdK) and the Collegium Helveticum (University and ETH Zürich). Further research projects on respiration in a stage setting and general health of music students are near to being completed.

Psycho-Physical Disposition

A key element of applied Music Physiology is to develop an optimal individual disposition for free expression on stage. Training of task-sharing between psychological and physical processes and their interaction can be beneficial to attain this goal. The complex challenges of music performance require not just one disposition fit for all situations; much rather, the alertness of brain, nervous system, respiratory and musculo-skeletal functions need training in view of each task specifically: On stage, in an exam, a competition or during a live radio/TV-broadcast, the coordination between various muscle groups, of body position, movement and respiration but also the focus on mental and emotional processes shift to an entirely different level of energy and tension. This requires a specific quality of balance. In addition, this psycho-physical self-organisation needs to be put in relation to the presentation's content and the communication with the audience.

Therefore, a well-dosed level of beneficial position of and tension in parts of the body designated to be of help for this task is to be preferred as favourable for performance from a general feeling of being relaxed. Often, musicians describe their optimal physiological activity as "relaxed" or "loose" to avoid the word "tension" with its traditionally negative connotation. In order to achieve a feeling of competency on stage, permitting artistic and musical themes to be expressed freely, the coordination between the above-mentioned elements need to be internalised to such a degree that the musician can rely on these functions anytime – automated, as if they were reflexes. For example, it is of great importance for musicians and singers that a connection between visualising a pitch and the respective amount of advance tension can be made. The consequence for Music Physiology and its teaching is that from the wealth of therapies and approaches aimed towards an increase of self-awareness (the majority of which have not been developed for a music-related approach), a task-specific and profession-related selection needs to be made in view of the musicians' needs and strategies.

What is Music Medicine?

Music Medicine or Musicians' Medicine treats health problems of musicians. Often, an interdisciplinary approach needs to be taken. Most of the functional problems related to music making can be resolved with specific exercises at a pre- pathological stage. The Swiss University Centre for Music Physiology (SHZM) relies on a network of therapists, doctors and neuroscientists. The rise of Music Physiology and Musicians' Medicine at the end of the 20th century was the consequence of alarming studies on the health of musicians, be this professional, college students and at music school level.

Just as is the case with professional musicians, the emphasis in treating students lies on examining both psychosomatic and musculo-skeletal problems. Music students and musicians who do sports regularly are less frequently affected by musculo-skeletal problems. Music students who come from families with a musical background are generally more affected by health problems than the average. This can be explained also through high expectancy levels and various elements in their socialisation. Much can be achieved by health prevention at an early stage. Early improvement of the ability for self-organisation in musicians ("help to help yourself ") can achieve a great deal. By doing so, the general

tendency to pathologise, medicalise and commercialise when dealing with occupation-related problems can be counteracted.

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