

## **TITLE**

Musicians` Health: Aspects of Internal Medicine

## **ABSTRACT**

Within the field of musicians` medicine, aspects of internal medicine still tend to be underestimated. They predominantly involve cardiovascular, pulmonary, endocrine, and gastroesophageal conditions. Symptoms are often subclinical and may occur only while practicing or performing. Usually, internal health problems in musicians are not exclusively caused by playing or singing. They rather arise from interactions of music-related physiological and/or psychological responses and underlying internal disorders.

Cardiovascular symptoms primarily appear in wind musicians. Blood pressure, heart rate as well as heart rhythm characteristically respond to the air pressure that needs to be produced and sustained while playing the instrument. Due to additional stress-related effects, circulatory and rhythm reactions are clearly more pronounced in performance than in practice sessions. For healthy musicians, these effects are within physiological range, whereas musicians with underlying cardiovascular conditions often show symptoms and should be monitored for pathological responses.

Pulmonary effects of wind instrument playing have been discussed controversially. Overall, professional wind instrumentalists are not specifically prone to respiratory diseases unless there are coexisting risk factors. For asthmatic children, playing a wind instrument often has positive, therapeutic effects.

Gastroesophageal reflux disease (GERD) and reflux symptoms are more prevalent in wind instrumentalists and singers as compared to controls and may affect the vocal structures. In particular, atypical manifestations of GERD may lead to impairments in music performance. Individualized medication, depending on playing/singing activity, is recommended.

Endocrine disorders can interfere with musical instrument playing or singing. Since symptoms are often non-specific, they may pose a diagnostic challenge.

Keywords: Musicians` medicine, internal medicine, music physiology