

EFFECT OF THE LAUTSÄNGER ON THE CARDIO-VASCULAR SYSTEM

A study conducted by the University of Heidelberg-Mannheim drew my attention to the Lautsänger headphones made by the company of the same name in Hirschhorn am Neckar / Germany. The aim was to investigate the effects of a 12-minute "music intervention", i.e. listening to classical music for the purpose of relaxation, on one hundred volunteers, all of whom suffered from above-average stress levels. The subjects were mostly women (83%) and mostly students (42%).

The clinical trial has not yet been published; it is currently (March 2022) undergoing peer review at an international journal.

For the music intervention, closed headphones were used, and interestingly, two different types of headphones: on the one hand, the "MEZE 99 Classic" and, on the other hand, headphones of the same type modified by the company Lautsänger by means of so-called cymatic organs (www.lautsaenger.com). At the first cursory reading of the study, I immediately suspected a placebo effect - if a subject knows that he enjoys the music with a significantly refined headphone, it would not be surprising if he subsequently exhibits a better state of relaxation. However, upon closer reading, I noticed – and this was also confirmed to me upon inquiry – that the study was double-blinded: neither the study participants nor those conducting the study knew before and during the intervention which of the headphones they were using.

The result is striking: Both groups of test subjects - one with, the other without headphone modification - showed a decrease in pulse wave velocity and thus in arterial vascular stiffness as well as heart rate: an effect that is known to occur even by simply resting and relaxing. Of decisive importance, however, is the fact that only in the group of test persons who used the Lautsänger headphones did a significant decrease in the arterial flow resistance of the large conduction arteries occur. This corresponds to a widening of the arteries - a clear, unmistakable sign of a deep state of relaxation. Using standard statistical methods, it was shown that the difference was statistically significant and very unlikely to be due to random effects.

The measurement system used in the study also allows an estimation of the "arterial age": by this is meant that during the measurement procedure the arterial properties of a test person are compared with the average values of the entire population. In this way, a 40-year-old can be given the arterial age of a 35-year-old (or even a 45-year-old), for example, which doctors like to use as motivation for a healthier lifestyle. In relation to the test group of the Lautsänger headphones group, it could be determined in this way that they were "rejuvenated" by 2.3 years in relation to their arteries after the music intervention.

The importance of our arteries is rightly reflected in a phrase attributed to the Canadian physician and physiologist Sir William Osler (1849-1919): "One is as old as one's arteries". In fact, damaged or narrowed arteries are the cause of heart attacks, strokes and other life-shortening cardiovascular diseases.

Of course, the effect of arterial rejuvenation is only temporary, but there is a basic principle in medicine: what one repeatedly experiences "acutely" (i.e., for a short time), "chronifies" (perpetuates) in the long run. This is true for the bad (see smoking), but also for the good (sports). And it

also applies to states of relaxation: If you repeat the deeply relaxing Lautsänger music intervention over and over again, you are very likely to permanently reduce your individual stress level. This in turn naturally lowers blood pressure, based on the reduction of vascular resistance: the risk of cardiovascular disease is reduced.

However, the question of why remains open - at present, we can only speculate. However, the following can be stated:

It is well known that positive emotions have a beneficial and sometimes even healing effect on our body, this should be undisputed. In terms of music and music enjoyment, a live concert undoubtedly triggers the strongest emotions; the immediacy of the overall experience is the decisive factor here. Now, in comparison, playback via headphones conveys only the illusion of a concert experience. But if, as in the case of Lautsänger headphones, it is possible to increase the presence of the concert played through the headphones, to make it more "palpable", so to speak - then, it can be assumed, the positive emotions of the listener are intensified, and the relaxation becomes deeper, the sense of well-being increases. In my opinion, this is the special effect of the Lautsänger headphones - and thus, to a certain extent, their uniqueness. A concert played back over the Lautsänger headphones seems more vivid, closer, more present than would be possible over conventional headphones. You are literally immersed in the atmosphere of the concert.

With this in mind, it should come as no surprise that this new sound experience elicits a more significant body response than conventional headphones. In view of the measurably proven positive influences of the world of Lautsänger sound to the arteries, which significantly reduce the risk of cardiovascular events with regular use, the investment in Lautsänger headphones can be called a preventive health measure without any exaggeration.

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