

From Head to Leg and Back – a Doctor’s view on Dancing. by Dr. Eckart von Hirschhausen

Dr. Eckart von Hirschhausen¹ is a German Doctor, comedian, author, cabaret artist, and show host and currently tours with his stage performance “Wunderheiler”. He was born in 1967 in Frankfurt/Main and studied medicine at the Free University of Berlin, the University of Heidelberg and the University of London. After graduation, he started working in the field of journalism, mainly writing for news magazines and newspapers. Within only a few years, Hirschhausen began to host television shows and eventually started to perform as a stand-up comedian and cabaret artist. Nowadays, he is one of the best known comedians in Germany – and as we will learn now – he is also interested in dancing, at least the West Coast Swing, to train his brain.

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Nothing preserves our brain cells as well as a diverse and agile life: Dance against dementia.

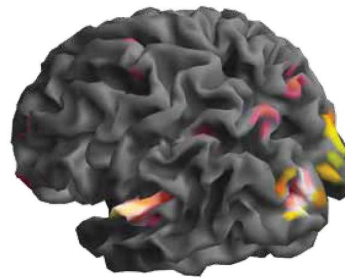
A sample size of N=1 usually rankles the science journalist. However, here N is not N.N., that is *nomen nescio* which means “still to be named”, instead I know the subject very well since it is me. Today, I report my little self-experiment in a brain scanner in which I have had two scans – one before and one after the summer. In between, I took dancing lessons. The question was: How malleable is my brain?

For more than 30 years, I did not set a single foot inside a dancing school and it was correspondingly tedious for me to memorize the moves. What drove me on was the legendary Einstein Aging Study, a long term study, which monitored people over the course of decades. It showed that our hobbies influence how fast our brain degenerates. My grandma always solved crossword puzzles, thus I knew very early on that – a tropical bird with five letters = MACAW! In the Einstein Study, the risk of dementia-related diseases is reduced by 41% if the participants solved crossword puzzles several times a week. Sports, like swimming, reduced it by 29%. However, a radical reduction of a thrilling 76% was reached by dancing!

Dancing challenges and delights us on many levels. We move our bodies and someone else’s, we learn new patterns of motion, and the social interaction and the music make us happy. Solving crossword puzzles has only two levels, vertical and horizontal. So far, no medication, no game of chess, no nutritional supplement has ever reached a better medical effect against dementia than a frequent few steps on the dance floor. Thus, it helps to get one’s butt in gear from time to time and even better, moving it left and right with the rhythm when doing so! At first, I always wanted to check on the location of my feet. Fortunately, they are directly wired to the brain and after some time, I could step on the toes of my dance instructor with my head held high. When I had the second scan in the MRI, the training revealed its effects. When, now, imagining dancing to swing music, the visual cortex was less active than before while the motor centers of my brain light up all the more. Thus, I did not only visualize the dance, but also automatically translated the music into motion patterns. It twitched and

flashed from tongue to toe!

Professor Christian Elger who led the examination was surprised himself. Although, there are already comparisons of the brains of dancers and non-dancers, I could demonstrate my neuroplasticity in a direct before-after manner.



Inside the brain: These regions were active while only thinking of dancing Swing. Yellow shows the regions before, red after the dancing lessons, respectively.

When the first signs of Alzheimer’s appear, it is already at least two years too late for drugs to be effective. Apparently, nothing preserves our brain cells as well as a diverse and agile life: Dance against dementia! Every child automatically wiggles and wobbles to music. Thus, we, as adults, would not need to learn dancing in such a tedious manner if we would not have broken loose from it in the first place. Dancing helps us now and later – “Man, learn to dance” said church father Augustinus, “otherwise the angels in heaven don’t know what to do with you.”

Read more:

Verghese, J. *et al.*: Leisure Activities and the risk of Dementia in the elderly. In: The New England Journal of Medicine 348, S. 2508–2516, 2003

This article was originally published here:

<http://www.spektrum.de/magazin/dance-gegen-demenz-musik-erhaelt-die-grauen-zellen/1368425>

By courtesy of Dr. Eckart von Hirschhausen and Spektrum. Translation by Kai Litzius.