

Solution for hand tremors hits the market

January 17 2018



ViLim Ball technology created at a Lithuanian startup company Fidens helps to reduce uncontrollable shaking hands, which is one of the symptoms of essential tremor. The technology is effective in 7 out of 10 cases, and it can also be used to alleviate morning stiffness of joints for rheumatoid arthritis sufferers. Credit: KTU

Technology created at a Lithuanian startup company Fidens helps to reduce uncontrollable shaking hands, which is one of the symptoms of essential tremor. The technology is effective in seven out of 10 cases, and it can also be used to alleviate morning stiffness of joints for rheumatoid arthritis sufferers.

According to various data, around 1 percent of the population suffers from essential tremor (ET). The incidence of ET rises with increasing age. Approximately 4 percent of adults 40 years of age and older are affected by the condition. Although usually considered benign, essential tremor greatly influences the quality of life of those suffering from the condition—everyday tasks, such as pouring, writing or drinking become a challenge.

"My grandfather had this problem. Seeing a relative suffering from the condition, it becomes clear that any device that could reduce the symptoms would be of great assistance. To be honest, there are not many of them in the market today," says Dr. Mantas Venslauskas, researcher at Kaunas University of Technology (KTU).

According to Dr. Venslauskas, the ViLim Ball created by the Lithuanian company is a more specialised version of a vibro trainer. "In our laboratories, we have modified the [technology](#) by applying certain features to the device—ViLim Ball can also be used for reducing hand stiffness in the morning, which is a characteristic symptom of rheumatoid arthritis," says Venslauskas.



According to recent research, ViLim Ball is efficient in alleviating symptoms for 7 out of 10 essential tremor cases, and is beneficial in 9 out of 10 cases of rheumatoid arthritis. Credit: KTU

He says that the main inspiration for creating the hand tremor-reducing technology originated during his doctoral study years. With KTU professor Vytautas Ostaševičius, who was Dr. Venslauskas' Ph.D. supervisor, they often discussed the need of similar technologies for sustaining and enhancing society's well-being. In KTU's Biomechanics Laboratory, the researchers have been developing and experimenting with various devices for improving circulation in body extremities, which is important for rheumatoid arthritis sufferers. The technology for circulation enhancement has been tested and patented together with the researchers of the Lithuanian University of Health Sciences (LSMU).

"However, while communicating with researchers from LSMU

Neurology Clinic we found out that the technology can also be used for tremor diminishing. Therefore, at Fidens we have created a thoroughly new technology and concept of a device for reducing hand tremor and stiffness. At the moment, our device is being tested with human subjects in order to examine its impact on physiological parameters," says Dr. Venslauskas, Fidens' director.

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In January 2018, a beta version of ViLim Ball was released into the market. Although at the moment, the [device](#) is aimed at Lithuanian market, after refining based on further testing and correction, it will be also available in the U.S.

Provided by Kaunas University of Technology

Citation: Solution for hand tremors hits the market (2018, January 17) retrieved 3 May 2024 from <https://medicalxpress.com/news/2018-01-solution-tremors.html>

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