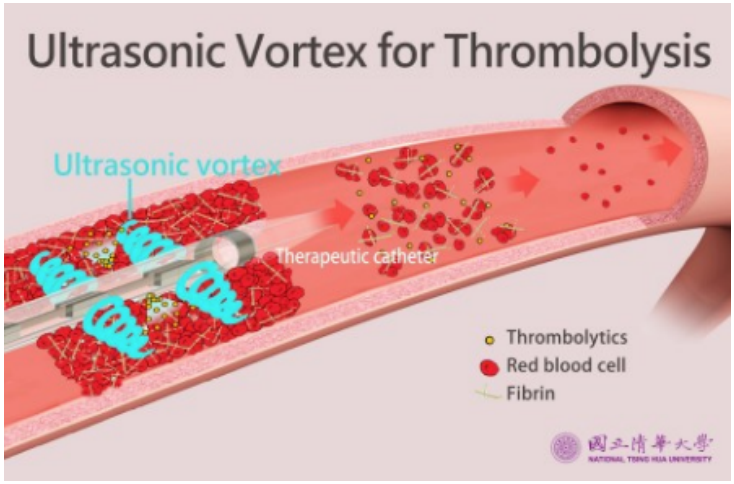
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Taiwan develops world's first ultrasonic vortex thrombolytic device

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The research team has developed 0.2-mm ultrasonic device



As COVID-19 vaccination has raised the issue of thrombosis, Dr. Chih-Kuang Yeh, Distinguished Professor of the Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University, Taiwan has led a research team to developed the world's first ultrasonic vortex thrombolytic device and to treat thrombosis quickly and safely.

Thrombosis occurs when blood clots block veins or arteries. The device is developed to solve two common thrombosis called pulmonary embolism (PE) and deep vein thrombosis (DVT), which have global prevalence of 10 million new cases annually.

DVT is the main cause of PE, and PE can cause heart failure and has mortality rate up to 65%. Professor Yeh explained that the current treatment options includes drug delivery catheter and thrombectomy devices, but they are not effective enough or may bring up hemorrhage risks. This was the reason motivating him to research for a more effective and safer solution.

Working with industrial partners, Yeh’s team has developed a 0.2-mm ultrasonic device, which can generate tornado-like ultrasonic vortex and create a strong turbulent around the thrombus, therefore increasing penetration of thrombolytic drugs and resulting in very effective thrombolysis.