

## New technology: Use low-frequency ultrasound to break blood clots deep in the leg veins

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The researchers say the tool uses a low-frequency, vertical-drilling ultrasound, which helps doctors better target blood clots, significantly reducing treatment time.



Xiaoning Jiang, a professor at North Carolina State University, said: *"This new ultrasound tool will act as a drill, then approach, breaking the clot into very small particles . "*

One problem is that horizontal ultrasound waves disperse blood clots in small particles but at the same time can affect the surrounding blood vessels. So, scientists used this technology ultrasound in combination with a microbubbles syringe to help locate and localize the blood clot, making it effective without affecting other areas.

*"Our new approach improves accuracy without relying on high doses of blood thinners, which we hope will reduce risks and complications from current conventional methods. "* Jiang said in Scientific Reports.

And researchers tested this technology on cow blood.

*" We found that this low-frequency ultrasound can dissolve 90% of blood mass in 3.5 to 4 hours without using any blood thinners compared to 10 hours if using catheter tools. often or other blood thinners ' - Jinwook Kim, a graduate student at North Carolina State University said in a statement.*

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