AI-powered patch that reads throat muscle movements can potentially restore speech for people with voice disorders

Researchers have developed a new device that can translate muscle movements in your throat into speech, allowing people with vocal cord issues to communicate again. This self-powered patch sticks to your neck and uses tiny magnets to convert throat movements into electrical signals.

US-based researchers unveiled in a study published in *Nature Communications* that the tiny, flexible patch operates solely on muscle movements.

The patch, described in a recent study, is made of five thin layers. The outer layers are soft and flexible, while the middle layer contains tiny magnets that react to muscle movement. The two remaining layers use these magnetic shifts to generate electrical signals.

A machine-learning algorithm then takes these electrical signals and translates them into speech.

The researchers noted that current treatments for severe voice issues, like handheld devices such as an electrolarynx, can be “inconvenient, uncomfortable, or invasive.”

This technology has the potential to be a game-changer for people who have lost their ability to speak due to vocal cord damage or surgery. The patch’s self-powering design eliminates the need for batteries, making it a convenient and long-lasting solution.

This is an excerpt. Read the full article here