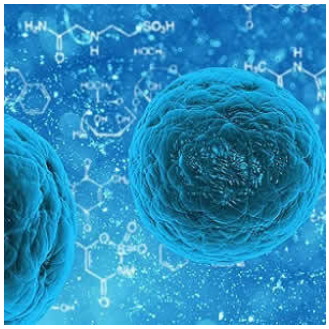
## Stem Cell Patch Improves Heart Failure Symptoms



New research from Japan suggests that patching a damaged heart with a patient's own muscle stem cells may be a viable therapy to treat heart failure. This cell patch has been shown to improve symptoms of heart failure, according to a Phase I clinical trial reported in Journal of the American Heart Association.

***See Also***: Stem Cells Used to Regenerate the Heart's External Layer

The study enrolled 27 patients with heart failure who, before receiving the new stem cell treatment, had limited exercise capacity and were not responding well to common heart failure treatments. A team of Japanese researchers made patches out of cells taken from the thigh muscles of patients and surgically glued the patch onto the surface of the patients' hearts.

The patients had no major complications from the procedure, and one year after receiving the patch, they showed improvements in their exercise capacity and heart function, according to the research team led by Shigeru Miyagawa, MD, PhD, from the Department of Cardiovascular Surgery, Osaka University Graduate School of Medicine, Osaka, Japan.

A number of therapies are available to treat heart failure, including drugs, implantable devices, and heart transplantation, but these treatments are not good long-term options. The use of a patient's own cells to regenerate damaged heart is a promising alternative, the researchers noted.

Larger clinical trials are needed to validate the study's findings, the researchers concluded.

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Source: American Heart Association
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