

# Heart healing therapy shows promise

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A potential therapy to help patients recover from a heart attack has been identified by researchers.

The treatment – based on a molecule that is produced naturally in the body – could help hearts to heal faster.

The molecule – called IL-4 – is normally produced by specialised immune cells called [eosinophils](#), which play a key role in wound healing.

## Heart attack

Researchers at the Essex Cardiothoracic Centre and University of Edinburgh tracked 732 patients who had suffered a [heart](#) attack and measured the level of eosinophils in their blood.

They found that patients with low blood levels of eosinophil were more likely to die within six months than those who had higher levels of the white blood cell.

## Mouse study

The team went on to study mice that were bred to be deficient in eosinophils. Treating these mice with IL-4 after a heart attack helped to reverse damage to the size, shape and function of the heart.

"We found that IL-4 immuno-therapy could be a novel treatment to boost the immune response in [heart attack patients](#) in order to promote

healing of the heart and so limit the damage that occurs after a heart attack," says Dr Iqbal Toor.

## Tissue repair

IL-4 plays a key role in the inflammatory response and [tissue repair](#). Researchers think that the molecule may be crucial in helping the heart heal after a heart attack.

The team is now looking to confirm these findings in a clinical trial to test whether IL-4 has the same effects in people as it does in mice. If it does, they say the therapy could save lives.

"This exciting research may have uncovered one reason why some people who have had a heart attack go on to partially recover, whilst others do not. If these results are borne out by future research and larger clinical trials, IL-4 may prove to be a key new treatment for people who have had a [heart attack](#)," says Professor Sir Nilesh Samani.

Provided by University of Edinburgh

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