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Stem Cell Hope for Heart Disease

Significant advances are being made in the treatment of damaged hearts and blood vessels with the help of stem cell therapy. Researchers in the U.S. are currently using high concentrations of stem cells to improve arteries and even to build new ones.

Stem cell therapy helps the human body repair itself. Dr. Amit Patel, director of the Cardiac Stem Cell Therapies at The McGowan Institute for Regenerative Medicine, University of Pittsburgh Medical Center, explains the procedure: "What we do is actually take them out and find the right amount of cells and specifically put them into targeted areas." The technology can be applied to patients with heart failure, patients who are recovering from coronary bypass surgery or patients who are receiving stents, he says. Practically all heart patients could benefit from this type of therapy.

The Institute has already had successful results in 100 patients, who saw significant improvements within 3 months after the stem cell injection. Blood flow to the heart was improved in these patients, and the heart muscle doubled its ability to contract.

New arteries can be grown with the help of stem-cell therapy. The living proof is a 27-year old man treated at the Northwestern Memorial Hospital, who was about to have his right leg amputated because the leg had too little blood flow. One could easily see where the blood vessel was blocked. "Now, three months later, after injection of stem cells in that area, you can see that there's a new vessel bringing the blood down", says Dr. Richard Burt, who treated the patient.

Researchers hope that stem cell therapy for building blood vessels using the patient's own cells will become widely available within the next few years.