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## **Health Alert: Stem cells**

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NATIONAL - Peripheral artery disease, or PAD, is a serious problem leading to 30- to 50thousand amputations a year. Researchers are now using stem cells to keep patients on their feet.

Delbert Shimer has hardening of the arteries in his legs so severe it's led to peripheral artery disease.

"I have a lot of pain and burning and stuff - in your feet and legs. It don't feel very good," said Delbert.

His blood vessels were so clogged, standard treatment was out of the question. His only option was the amputation of his legs, until he signed up for a unique stem cell study at Indiana University.

Dr. Michael Murphy says, "We're treating a certain subset of patients with PAD that are not candidates for surgical bypass or angioplasty and have such severe vascular disease that they have pain at rest, or they have gangrene and are at risk for losing their leg, amputation."

In the study, researchers harvest stem cells from the patient's own hip bone.

Dr. Keith March says, "The bone marrow is processed to provide stem cells that include stem cells that help to grow blood vessels and perhaps participate in actual forming of blood vessels."

Researchers inject the cells into the patient's affected leg muscles hoping to repair sick arteries and grow healthy, new ones.

Dr. March, "We want to do multiple injections so that actually the muscle in many of its areas will be able to be addressed by the growth factors that these cells secrete."

Patients in the study have shown improved blood flow.

Dr. Murphy says, "We've had about a 50% significant response rate, equivalent to what we would hope to obtain with angioplasty."

Delbert says "it helped mine out, I'll say that. I'm doing a lot better and I don't have all that problem I did have and don't have that pain I did have."

And so far Delbert's still walking on his own two legs.

Eventually the researchers are hoping to use stem cells from the patient's own fat tissue, that can be retrieved through liposuction, and from umbilical cord blood so patients can avoid the painful bone marrow extraction.

Posted by Bryce Mursch

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