

Heart Center of the Rockies Offers New Procedure at PVH for Peripheral Artery Disease

Peripheral artery disease

12 million Americans suffer from peripheral artery disease, or PAD. PAD results from plaque build-up in the arteries of the legs, blocking essential blood flow. When blood can't get through, body parts downstream don't get enough oxygen. Muscle tissue, for example, needs oxygen to function. A lack of oxygen can cause muscles to cramp.

With severe PAD, blocked leg arteries can also lead to pain at rest, non-healing sores and gangrene followed by amputation. Essentially, parts of the legs or feet die from inadequate blood flow.

Not long ago, the best treatment option might have been angioplasty, in which a balloon catheter would be threaded through the artery to the blockage. The balloon would then be inflated, pushing the plaque out of the way to create a larger opening for blood flow. Sometimes with angioplasty, a device called a stent is also placed inside the artery to help keep it open.

The most severe cases of PAD are treated with a surgical procedure in which the blocked leg artery is bypassed by sewing a piece of vein or an artificial tube above and below the blockage.

While sometimes effective, angioplasty often fails in the legs because plaque tends to reform in the treated area. Stents can't be placed in spots that bend—such as near the knee—and bypass surgery involves larger incisions and greater risk.

A new treatment: Removing the plaque

Recently, a new FDA-approved treatment became available to some PAD sufferers. Called *plaque excision*, the minimally invasive procedure involves removing the plaque with a tiny drill-like device at the end of catheter.

As with cardiac catheterization, the patient is lightly sedated and the drill-tipped catheter is inserted into the artery through a tiny incision in the groin. The physician guides the catheter down the artery to the blockage and shaves off and captures the culprit plaque. The procedure itself takes about one hour, though patients usually remain in the hospital overnight for observation.

Poudre Valley Hospital purchased the SilverHawk™ plaque excision system in 2004. Dr. Miller trained on the new equipment and was the first physician in Colorado to use it. He has since performed about 60 plaque excisions. Heart Center of the Rockies

cardiologists Roger Ashmore, J. Bradley Oldemeyer, Chad Stoltz, and Gary Lucakasen also have experience with the SilverHawk procedure.

“It’s a very safe procedure for restoring circulation,” said Dr. Miller. “We’re seeing about a 90 percent long-term success rate with this technique. And many times these were patients who were being considered for amputation.”

About half of all people with peripheral artery disease also have blockages in the arteries of their hearts. Doctors think that plaque excision with the new Silverhawk™ system may also be highly effective at removing plaque from the coronary arteries. Clinical trials are now underway.

New Procedure Also Helps Serious Wounds Heal

At PVH’s Wound Healing Clinic, podiatrist Dr. Bill O’Halloran often sees serious foot sores in diabetic patients. These wounds don’t heal well because blood circulation tends to be poor.

“Healing a wound is like farming,” said Dr. O’Halloran. “You can’t grow crops without water, and you can’t heal a wound without the oxygen and nutrients carried in the blood.”

Wounds that don’t heal can develop gangrene, and once gangrene sets in, the foot or leg often has to be amputated.

But the SilverHawk plaque excision procedure is helping save limbs by restoring blood flow to foot wounds. Recently at PVH, a young diabetic woman with a gangrenous foot was saved from below-the-knee leg amputation by plaque excision.

“After the procedure, it took a few months for her foot to heal—but it did heal,” said Dr. O’Halloran. “It’s fun to be able to help these people.”

For more information on peripheral artery disease and the SilverHawk plaque excision procedure, visit pvhs.org or call Heart Center of the Rockies at (970) 221-1000.