

★ NEW WAY TO CLEAR ARTERIES

Sound waves are used to treat calcium buildups

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For decades doctors have been seeking better ways of treating obstructions in coronary arteries — especially blockages made up of calcium — a factor that has produced several innovations, including miniature “rotoblades” that grind it up the way plumbers attack gunk in pipes.

Now, doctors at St. Francis Hospital in Roslyn have turned to sound waves, an evolving technique that loosens stubborn calcium from arterial walls. This minimally invasive method of dislodging blockages is part of a nationwide clinical trial that promises to restore blood flow by breaking up calcium at the speed of sound.

“This is amazing. It’s actually space-age technology,” said Dr. Richard Shlofmitz, chairman of cardiology at St. Francis. He said the procedure is formally known as intravascular lithotripsy, a version of the same principle involved in breaking up kidney stones — a process called kidney shock wave lithotripsy.

For decades, doctors have had three ways of dealing with coronary artery blockages: medications, such as statin drugs; stents, the mesh-like tubes that prop open arteries blocked with plaque, and coronary bypass surgery.

Some patients whose blockages are mostly made up of calcium do not fare well with standard treatments and have had a



Dr. Richard Shlofmitz holds a device that uses shock waves to break up stubborn calcium in people with clogged arteries at St. Francis.

poor prognosis. Severely blocked arteries can cause severe chest pain — angina — and increase the risk of heart attack.

“You can fix many blockages with stents and angioplasty,” Shlofmitz said of putting a stent in place by using a thin catheter with an attached balloon. The inflated balloon presses the goo that has collected in the artery out of the way as the stent is deployed. The balloon and catheter are removed.

“But when the obstruction is made up of calcium, it’s hard to open it up,” Shlofmitz said.

Even though balloon angioplasty can be used to force open stubbornly blocked arteries, it

may be impossible to put in a stent, and even with the plaque pushed aside it is not always a permanent solution.

“The blockage can return,” Shlofmitz emphasized. “That’s called restenosis.”

Pulses of sound waves, doctors are discovering, can break up calcium in the arteries and ultimately may provide hope for patients with severe blockages. This method of addressing hard-to-treat plaque has been approved in Europe and is being studied in Japan.

Patients who are having their plaque “shocked away” at St. Francis are wheeled into a catheterization laboratory

where a long thin tube — a catheter — containing a balloon and a series of sonic wave-emitters are advanced through a vessel in the leg to reach the obstruction blocking the heart.

When the obstruction is reached, the doctor operates a handheld device that both opens the balloon and generates pulses of sonic wave energy. Acoustic waves break the plaque into dozens upon dozens of microfractures, allowing a stent to be deployed. Minuscule particles of calcium are swept out of the body as waste, Shlofmitz said.

About 610,000 people die annually of heart disease in the United States, and of that total more than half — 366,000 — succumb to coronary artery disease, according to data from the National Heart, Lung, and Blood Institute.

Lyn Santiago, the research nurse who is enrolling patients in the St. Francis clinical trial, called this method of treatment “painless.”

So far, 12 patients have been treated with sound waves at St. Francis, where the team hopes to enroll a total of 60 in the coming months, Santiago said.

“Patients are free of chest pain. They feel better,” she said of the procedure.

The technology was developed by Dr. Todd Brinton, a cardiologist and bioengineer at Stanford University.

Brinton presented scientific evidence on sonic wave treatment two years ago in Paris, based on findings from the European arm of his research. He reported that not only do sound waves effectively treat patients with calcium blockages, there are no side effects from sound waves, he said.

Payless closing stores

NEW YORK — Payless ShoeSource is shuttering all of its 2,100 remaining stores in the United States and Puerto Rico.

The Topeka, Kansas-based chain said Friday it will hold liquidation sales starting Sunday. All of the stores will remain open until at least the end of March and the majority will stay open until May.

The debt-burdened chain in April 2017 filed for Chapter 11 bankruptcy protection, closing hundreds of stores as part of its reorganization. At the time, it had over 4,400 stores in more than 30 countries. It emerged from restructuring four months later with about 3,500 stores. It has more than 20 stores on Long Island.

The company, founded in 1956, said the liquidation doesn’t affect its company’s franchise operations.

Shoppers are increasingly shifting their buying online or going to discount stores like T.J. Maxx for deals on shoes. That shift has hurt traditional retailers, even low-price outlets like Payless. — AP

Theaters emptied

NEW YORK — A series of manhole fires in midtown Manhattan on Saturday forced the evacuation of a theater complex where performances of plays including “Jersey Boys” and “Avenue Q” were underway.

No injuries were reported from the fires at around 8 p.m. at West 50th Street near Eighth Avenue, but a representative for New World Stages theaters said patrons were evacuated as a precaution.

Other plays canceled included “The Play That Goes Wrong,” “Puffs” and “As Spirited History of Drinking.”

Photos posted on social media showed flames shooting into the air. The Fire Department said the fires were under control by 9:15 p.m.

Con Edison said no one lost power. The cause of the fires was not known. — AP

Police want to interview actor again about attack

CHICAGO — Chicago police say “the trajectory of the investigation” into the reported attack on Jussie Smollett has shifted and they want to conduct another interview with the “Empire” actor.

Chicago police late Friday released without charges two Nigerian brothers they had detained for questioning earlier in the week.

On Saturday, Chicago police

spokesman Anthony Guglielmi told CBS Chicago: “We can confirm that the information received from the individuals questioned by police earlier in the ‘Empire’ case has in fact shifted the trajectory of the investigation. We’ve reached out to the ‘Empire’ cast member’s attorney to request a follow-up interview.”

Smollett, who is black and gay, has said he was attacked by

two masked men shouting racial and anti-gay slurs and “This is MAGA country!” He said they looped a rope around his neck before running away as he was out getting food at a Subway restaurant early on Jan. 29. He said they also poured some kind of chemical on him.

Police have been unable to find surveillance video of the attack.

A spokeswoman for Smollett



Jussie Smollett

did not immediately respond to a request for comment on Guglielmi’s comment.

— AP