Health & Medicine

A Skin Patch that Dissolves Love Handles

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It sounds too good to be true: a medicated skin patch that dissolves unwanted body fat.

But it’s no scam.

Developed by scientists at Columbia University Medical Center and the University of North Carolina, the patch contains microscopic needles that release drugs that boost metabolism and turn the body into a fat-burning machine. The scientists recently tested the patch on mice and showed that it reduced body fat in treated areas by about 20 percent. They expect to begin human trials in two to three years.

“The patch would be painless to wear, because its needles are so tiny,” says Li Qiang, an assistant professor of pathology and cell biology who leads the Columbia research team. “You’d wear it for a few hours, with the needles releasing a steady stream of drugs beneath the skin.”



The patch contains microscopic needles that release fat-busting drugs beneath the skin. Photo: Zoonar GmbH/Alamy Stock Photo

The drugs delivered by the patch were developed years ago. But until now, scientists had no way of safely administering them. The medications work by inducing white fat cells, which store energy in the form of triglycerides, to convert themselves into brown fat cells, which periodically burn off to help maintain the body's core temperature.

"Brown fat cells are not typically found in adult humans, but rather in infants and in mammals that hibernate," says Qiang. "The drugs released by our patch trick white fat cells into thinking not only that they are brown fat cells, but also that the body is cold and needs extra heat."

The researchers are currently studying which drugs work best.

"Many people will no doubt be excited to learn that we may be able to offer a noninvasive alternative to liposuction for reducing love handles," says Qiang. "What's much more important is that our patch may provide a safe and effective means of treating obesity and related metabolic disorders such as diabetes."

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