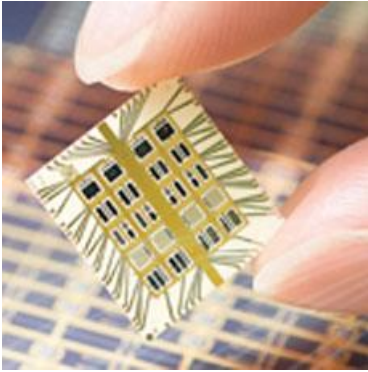


Taking Medicine, With a Microchip Under the Skin

This is the VOA Special English Technology Report.



Call it medicine on a microchip.

Researchers in the United States have developed the first wirelessly controlled device that can supply a drug directly into the body. A small chip is implanted under the skin. It contains the medicine which it releases at preset times.

The developers say the device could improve the lives of millions of people who take medicine for long-term illnesses.

A company called MicroCHIPS began developing the device about fifteen years ago. Last month, the company released the results of its first successful tests in humans. The tests took place in Denmark with seven women with osteoporosis.

Osteoporosis causes bones to become weak and break easily. The disorder is common among older people, especially women. Many patients have to give themselves daily injections of medicine. One type of treatment requires injections for two years.

Robert Farra is the president of [MicroCHIPS](#). He says many patients stop taking the medicine because of the pain and stress of the injections.

ROBERT FARRA: "And, as a result, only twenty-five percent of the patients will go through the entire twenty-four months of treatment."

The microchip is a few centimeters long. It has small sections that each hold a single dose of medicine. Mr. Farra says the device has to be programmed with the times to release the drug.

ROBERT FARRA: "For osteoporosis, the physician will program the device, and the device has the ability to release a dose at a given time, every single day. For other diseases, where the physician may want to alter the dosing schedule, they will have the ability to wirelessly reprogram that dosing schedule." :19

He says doctors will be able to reprogram the device from a computer or even a cell phone.

The seven women in the study were ages sixty-five to seventy. The researchers say the implants were just as effective as daily injections. And they say the dosage amounts were more exact than patients often give themselves.

The microchips in the study held only twenty doses of medicine. Mr. Farra and his team are now designing a version that could hold a full year's worth of medicine.

ROBERT FARRA: "We anticipate two years to complete the design, and then we may be required to do two additional trials, taking us out to a total of four years before the device is available on the commercial scale."

He says the microchips may one day free patients from having to remember to take their medicine, or give themselves injections. He says the device may also be useful in treating other chronic diseases, including heart disease and multiple sclerosis.

And that's the VOA Special English Technology Report, written by June Simms. I'm Christopher Cruise.