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Doctor, your sponge is beeping

Reuters

Tuesday, 18 July 2006

Surgeons may be able to use radio-tag technology to detect sponges they've inadvertently left inside their patient, a small US study suggests.

Researchers at [Stanford University School of Medicine](#) tested sponges embedded with radio frequency identification (RFID) tags that were left in eight patients having abdominal or pelvic surgery.

Doctors and nurses then waved a detector wand over the patients, which beeped when it found the sponges.

The wand detected the tagged sponges every time, in an average 3 seconds. There were also no false alarms, when the device beeped but there was really no sponge there.

But the researchers say the system is still prone to error, especially if people wave the wand too far away from the body, or don't scan the correct part of the body.

The study is published this week in the *Archives of Surgery*.

Alex Macario, a physician and professor of anaesthesia who led the study, says the future will probably see a combination of tags and other techniques such as counting instruments and sponges before and after an operation.

"We need a system that is really fail-safe; where, regardless, of how people use this technology, the patient doesn't leave the operating room with a retained foreign body," he says.

An earlier study found that medical personnel left foreign objects, most often sponges, inside a patient's body in one out of every 10,000 surgeries causing complications and even death.

RFID tags are used commercially for uses ranging from tracking luggage and preventing currency from being counterfeited to preventing shoplifting to collecting road tolls.

The study was funded by the [National Institutes of Health](#) and by a grant from the Small Business Innovation Research Program, using sponges developed by ClearCount Medical Solutions in Pittsburgh.

Macario has no financial interests in that company but two of the study's co-authors own several patents related to tagged sponges and work for the



Surgical staff leave behind a sponge or scalpel in one in 10,000 operations. But new technology may change that (Image: iStockphoto)

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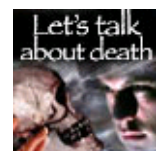
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