

By: Stefano/2008, Science Editor

[Stopping the Sperm Flow With the Remote Control!](#)

Flexible male contraception

A remote control can do more than turning on/off a TV; it could control human fertility. An Australian team is working on a device that, located inside the vas deferens (the duct transporting the sperm from testicles to the penis), could stop or release the sperm flow via a remote control. The technology, published in the 'Smart Materials and Structures' journal, would be a flexible alternative to vasectomy, which is the only reliable - but definitive - male option. Moreover, the vasectomy surgery, when vasa deferentia are cut off or blocked, is followed by a week of recovery. The silicone-polymer valve developed by the team from the University of Adelaide could switch on and off with radio pulses. The valve's conducting "fingers" pick up and turn the radio signals into sound waves that modify polymer's shape. "Since it is flexible, the polymer either contracts or expands as a result, and this movement allows the valve to be opened or closed as needed," lead researcher Said Al-Sarawi told NewScientist. "It will be like turning a TV on and off with a remote control, except that the remote will probably be locked away in your local doctor's office to safeguard against accidental pregnancy or potential misuse of the device." said co-author Derek Abbott. The valve functions similarly to a car's remote key-fob, to avoid its accidental turn on, based on a radio-frequency signal with a unique code. As the valve is just 800 micron-long, it can be inserted without surgery, just with a hypodermic needle. "The procedure could be performed in a special clinic rather than in a hospital," said Abbott. By now, the team is going to check the valve with a tube of pressurized water, and, subsequently, trials in living sheep and pigs will follow. Still, after some time, the valve may clog with protein and shut on forever, leaving the man permanently sterile. "We would only propose the device to men who were thinking of having a full vasectomy anyway. But, unlike in an actual vasectomy, he would have a 'grace period' where the procedure can easily be reversed," said Abbott.