

Supervet turns hand to human bionic limbs

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Science Editor

Amputees could be given the world's first "living limbs" using techniques pioneered on animals by the television vet Noel Fitzpatrick.

Fitzpatrick, the star of Channel 4's *The Supervet*, has agreed a deal with the Royal National Orthopaedic Hospital (RNOH) in London so his system for creating bionic limbs in cats and dogs can be used on humans.

"The [RNOH will] use the technology that we have developed in animals... to create implants which will provide humans with bionic limbs, which are directly linked to the skeleton, with skin growing on [them]," Fitzpatrick revealed on BBC Radio 4's *The Life Scientific*.

Currently, the most human amputees can hope for is a false limb attached to their stump. Fitzpatrick's system works by "seeding" a perforated titanium tube with

bone and skin cells, and then inserting it into the stump. It leaves a metal peg sticking out, to which an artificial limb can be attached.

This would normally risk infection, but the bone and skin cells grow around and into the peg, making it part of the skeleton and creating a bacteria-proof seal.

Fitzpatrick has used the system to treat animals such as Oscar, a cat whose rear paws were severed by a combine harvester but who walked again after prosthetic feet were fixed to its stumps.

Rob Hurd, the RNOH's chief executive, said it had been working on "skeletal fixation implants" since 2000 but was struggling to overcome infection problems. He added: "Noel Fitzpatrick is using similar technology to solve the same problems in animals. It is logical to share and use outcome data from both animals and humans to improve care for all."

5 Wesley Times 4. 1. 2018