

A man with a bionic prosthetic leg is walking on a treadmill in a hospital gym. He is wearing an orange tank top, black shorts, and grey sneakers. He is smiling and looking towards the camera. The treadmill has white handrails. In the background, there is a television, a desk with a laptop, and a chair. The floor is made of light-colored wood.

# The advantages of bionic prosthetics

Life changing surgery for double amputee at Norwest Private Hospital

**J**AMIE BERTOUX, a 34-year-old double amputee from London, recently travelled to Norwest Private Hospital for a life changing operation.

Jamie has been in a wheel chair since 2003 after losing both legs in a car accident. At Norwest Private Hospital he underwent an osseointegration performed by orthopaedic surgeon Dr Munjed Al Muderis.

Osseointegration is the surgical implant of an endo-prosthesis directly into the patient's bone, providing an anchor point for prosthetics. It allows the attachment of bionic prosthesis, providing the patient with full freedom of movement. It was the first osseointegration ever performed at Norwest Private Hospital.

Osseointegration is a two-stage operation. The first stage of Jamie's procedure took place on 21 September 2012. The second operation, on 3 November, was seen live via video link by an audience of national and international delegates at the Osseointegration Conference in Sydney.

Jamie was fitted with titanium Genium prosthetic legs and transferred to the Hills Private Hospital for rehabilitation. With both stages of the operation complete, Jamie now has the ability to directly attach prosthetic legs in a matter of seconds.

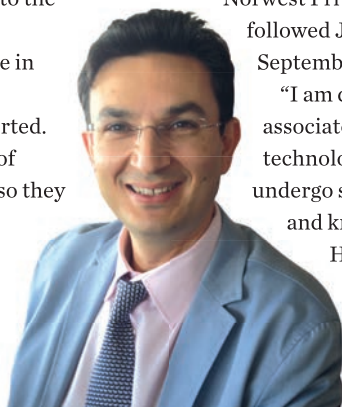
"Patients with an above-the-knee amputation often experience poor socket fit, which becomes more problematic with minor weight changes, sweating and skin problems," said Dr Al Muderis.

"These patients may be able to wear socket joints for short periods of time, or in some cases, not at all," he said.

As a result of these problems, some amputee patients neglect to use prosthesis, relying instead on the use of crutches or a wheelchair.

"Osseointegration is basically technology that integrates the implant to the bone," said Dr Al Muderis.

"There is an obvious value in the provision of prosthesis which are not socket-supported. Patients regain their sense of position through the bone, so they can feel the ground and identify the difference between carpet, tiles, brick or sand. Biomedically it's more sound than socket



**“PATIENTS REGAIN THEIR SENSE OF POSITION THROUGH THE BONE, SO THEY CAN FEEL THE GROUND”**

prosthesis, and patients improve their gait dramatically.”

Deborah Fogarty, General Manager, Norwest Private Hospital has closely followed Jamie's progress since September.

“I am delighted that Norwest is associated with this leading edge technology,” she said. “Watching Jamie undergo such a life-changing experience and knowing Norwest Private

Hospital played a part is very rewarding for all of our staff.”

Since Jamie's operation, Dr Al Muderis has performed

another six first stage osseointegration procedures at Norwest Private Hospital for patients from across Australia. He expects to treat international patients in 2013 as the procedure gains exposure worldwide.

And Jamie? He enjoyed a holiday in Byron Bay once his rehabilitation was complete, then returned home to England for Christmas. [PH](#)

*By Kellie Furey*

For more information on osseointegration procedures, visit [www.osseointegrationaustralia.com.au](http://www.osseointegrationaustralia.com.au)