

Stem cells hide scars

New hope for women disfigured by cancer

By **Jenny Hope**
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THOUSANDS of women left disfigured by breast cancer surgery have been offered hope by a revolutionary technique.

Surgeons are using stem cells and liposuction to replace missing breast tissue after a lump has been removed.

British women are among the first to benefit from the process that also smooths out scars.

Fat is removed from patients' stomachs, thighs or hips to fill out dents and hollows in the affected breast years after their cancer was removed.

The fat tissue contains regenerative stem cells that can trigger fast blood vessel growth, helping the graft survive.

These stem cells are separated from fat cells concentrated and strengthened using cell-enhanced reconstruction, which is being used



Henry on his treadmill: The white balls are motion sensors

in a trial at the Singleton Hospital, Swansea, led by plastic surgeon Mr Nader Khonji, and in Glasgow.

It uses the Cytori Celution System, a machine that prepares the stem cells to ensure they will survive and grow after the transplant.

They are then re-combined with the fat cells and injected into the breast. Although grafts using fat cells have been used before, they

have often failed to thrive. Mastectomy patients who lose a whole breast are offered implants and tissue flap procedures for recreating a lost breast.

But almost three-quarters of women having breast cancer surgery have just a lump or a small part of the breast removed.

Mr Khonji said the system had the potential to help thousands of

women who were left with an unsightly breast after a lumpectomy or wide excision of a lump.

He said: 'There are no new scars involved and the system encourages the growth of new blood vessels which has always been the failing of fat grafts in the past.'

Mr Khonji is carrying out a trial of ten patients, made possible by the loan of the £60,000 Celution

Jab helps dog to walk again

A PARALYSED dog has been put back on his feet again, raising hopes of a treatment for humans with severe spinal injuries.

Henry the miniature dachshund was unable to walk after discs ruptured in his spine last November.

In a pioneering treatment, scientists at Cambridge University took cells from his nose and injected them into his spine.

These cells are used because they aid the growth of new nerve fibres.

Now the six-year-old dog is walking and wagging his tail again.

Scientists originally found the treatment worked on rats. Professor Nick Jeffery and Professor Robin Franklin, who are running the trial, then decided to try the procedure on dogs because spinal injuries are common in many breeds.

Henry has also received physiotherapy and is monitored on a treadmill.

Dr Jeffrey said: 'We hope if the results are positive in a few years time the treatment could perhaps be used to help people.'

machine, made by a U.S. firm which is distributed in the UK by GE Healthcare.

Similar tests are ongoing in Glasgow, after a small study in Japan found four out of five women were pleased with the outcome. Eighteen months later there was no loss of tissue volume or recurrence of breast cancer, that trial found.

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