

Rejected donor livers can be used to grow healthy ones

By Sarah Knapton SCIENCE EDITOR

HEALTHY livers are being grown from rejected donor organs after British scientists discovered how to combat diseased tissue.

Researchers at the Royal Free hospital in London have shown it is possible to strip away the damaged parts of donor livers and use the underlying structure as a natural scaffold on which to rebuild a working organ.

The team are hoping that in the future, stem cells from a transplant pa-

tient can be taken and used on the "scaffold" to grow a new liver that would not be rejected by the body.

It could allow doctors to reuse the 900 livers which are discarded each year because they are fatty, cancerous or unmatched. It could even pave the way for entirely new livers to be grown from scratch.

Dr Giuseppe Mazza, of the Royal Free, told the *Evening Standard*: "The long term is making new organs and reducing the need for organ donors."

Nearly one in three adults has a fatty

400

The number of patients who die each year while waiting on the organ transplant list for a new liver

liver, often because they are overweight, but improvements in medicine mean fewer people are dying young and so healthy transplants are becoming more difficult to source. Currently

more than 400 patients a year die while waiting on the organ transplant list and the average wait time is 145 days for a liver transplant. A quarter of organs are now taken from obese patients compared with one in eight a decade ago, while 33 per cent of donors are now 60 or older, compared with just 17 per cent in 2005. The team is hoping to begin trials of the new organs in pigs within the next four to six years and if successful, full transplants for humans could soon follow. "This new technology will, in the future, change the lives of millions of patients who are currently waiting, sometimes years, for a suitable donor organ to become available." The British Heart Foundation is calling for an "Opt-Out" system to be implemented so that donation is mandatory unless patients ask to be removed from the registry. Wales has already implemented such a scheme.