

Scientists create 'portable lung'

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A portable lung which could help those with breathing problems lead a normal life is being developed by scientists.

Researchers say their device, which oxygenates blood outside the body before it goes through the lungs, could be an alternative to transplants.

The Swansea University scientists say it could take many years before the device, the size of a spectacles case, is available.

Lung patients, who have seen how it would work, have welcomed the research.

According to the British Lung Foundation, there are more than 40 conditions which affect the lungs and airways and impact on a person's ability to breathe.

They include lung cancer, tuberculosis, asthma, chronic obstructive pulmonary disease (COPD), cystic fibrosis, sleep apnoea, avian flu, bronchiolitis and many others.

Its research suggests that one person in every seven in the UK is affected by lung disease - this equates to approximately 8m people.

As of 6 March 2009, 217 people were on the waiting list for a lung transplant according to figures by NHS Blood and Transplant. Now scientists in Swansea are developing a portable artificial lung which could transform the lives of patients.

Researchers claim that in the long term the device could offer an alternative to lung transplants, giving hope to those who suffer from conditions such as emphysema and cystic fibrosis.

The device mimics the function of a lung - by getting oxygen into and carbon dioxide out of the blood stream.

Professor Bill Johns came up with the idea after his son died of Cystic Fibrosis.

"It is important that we make something that will help people, who instead of being confined to a wheelchair with an oxygen bottle, can actually walk around and do things for themselves, he said.

Although the research has been welcomed by leading charities, caution has also been voiced over the length of time it will take before a portable lung will become available.

"We have to stress that this is several years away from being used, even in a trial stage," said Chris Mulholland, head of the British Lung Foundation.

"While we welcome the advances, we have to be realistic and know that one in five people could do with that help now."

Patient Elizabeth Spence from Swansea has been refused the double lung transplant she needs but remains hopeful that one day the new device could help her.

"My body will reject the lungs, so this possibly could be an answer - another way of getting new lungs without actually having the transplant," she said.