

Many more lungs suitable for transplantation

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Four patients now have new lungs thanks to a purpose-built machine used for the first time worldwide by Sahlgrenska University Hospital. Acquired for research at the Sahlgrenska Academy, University of Gothenburg, Sweden, the new machine will contribute to more lung transplants in the long term.

Built by a company in Lund, the machine is used to assess and treat the function of donors' lungs before transplantation. While the lungs of many donors are of good quality, some can swell on account of the fluid that gathers in them, rendering them unsuitable for transplantation.

"The new machine allows us to get rid of the swelling and so make them fully functional," explains Göran Dellgren, docent at the Sahlgrenska Academy and consultant in cardiothoracic surgery at Sahlgrenska University Hospital.

The lungs taken from the donor are first cooled as all donor lungs are at the donor hospital. On arrival at the [transplant](#) center the [donor](#) lungs are hooked up to the machine. After being slowly re-warmed they are then ventilated so that they can be assessed. If, after three to four hours' treatment they are in good condition, they are cooled once more before transplantation.

Four people have been given lungs treated in this way.

"We wouldn't have been able to use any of these lungs for transplantation before the machine became available," says Dellgren.

"The patients now have fully functional lungs and are doing very well so far".

The almost 150 multi-organ donors in Sweden each year enable 50-60 [lung transplants](#) to be carried out. Acquired with research funding, the machine at Sahlgrenska University Hospital is an excellent tool for ensuring more lung transplants, believes Dellgren.

"We may be able to increase the number of transplants by 20-30%, which would be a blessing for all seriously ill [lung](#) patients in Sweden."

Provided by University of Gothenburg

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