

Extracorporeal carbon dioxide removal for acute respiratory failure

Information for the public

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For people with acute hypoxic respiratory failure, this procedure should not be used. The evidence shows that it is not safe and does not work in this group. Your healthcare professional should talk to you or your family or carers about other treatment options.

For people with acute hypercapnic respiratory failure, this procedure can only be done as part of a research study. This is because there is not enough evidence to be sure how well it works or how safe it is in this group. Your healthcare professional should talk to you or your family or carers about the research.

Acute respiratory failure (when the lungs do not work effectively) is a life-threatening condition. It can cause a person's blood to have abnormally low levels of oxygen (acute hypoxic respiratory failure). It can also cause a person's blood to have abnormally low levels of oxygen and abnormally high levels of carbon dioxide (acute hypercapnic respiratory failure).

In this procedure, blood is taken from the circulatory system out of the body (extracorporeal). It is then passed across a synthetic membrane that allows some of the carbon dioxide to be removed. The blood is then returned to the circulatory system. The aim of the procedure is to lower carbon dioxide levels in the blood independently of the lungs.

Is this procedure right for me?

You should be included in [making decisions about your care](#).

If you have acute hypercapnic respiratory failure, your healthcare professionals should explain the risks and benefits of this procedure and how it is done. They should discuss your options and listen carefully to your views and concerns. They should offer you more information about the procedure. Your family or carers can be involved if you want or need them to be.

You will be asked to decide whether you agree (consent) to have the procedure. If you are unable to consent, your family or carers may be asked to consent on your behalf. Find out more about [giving consent to treatment on the NHS website](#).

Some questions to think about

- What are the possible benefits? How likely are they?
- What are the risks or side effects? How likely are they?
- What happens if it does not work or something goes wrong?
- What happens if I do not want the procedure?
- Are other treatments available?

Information and support

The [NHS webpage on acute respiratory distress syndrome](#) may be a good place to find out more.

- [NICE's information on HealthTech guidance](#) explains what HealthTech is and how we assess it.
- [NICE's information on HealthTech recommendations](#) explains what only in research means.

You can also get support from your local [Healthwatch](#).

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