

# Vacuum (negative pressure) therapy for open abdominal wounds

Information for the public

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## What has NICE said?

Vacuum therapy for open abdominal wounds is safe enough and works well enough to use in the NHS.

This procedure should only be carried out by health professionals with special training in using the procedure for open abdominal wounds.

More research is needed into vacuum therapy for open abdominal wounds.

## What does this mean for me?

If possible, your health professional should fully explain what is involved in having this procedure and discuss the possible benefits and risks with you. You should also be told how to find more information about vacuum therapy for open abdominal wounds. All of this should happen before you decide whether you want to have this procedure or not.

Your health profession might ask you if details of your procedure can be used to help collect more information about vacuum therapy. Ask your health professional for more information about this.

In an emergency, healthcare professionals may give treatment immediately, without obtaining your informed consent, when it is in your best interests.

## The condition

An injury or surgery to the abdomen can result in a wound that cannot be closed straight away. The wound may need to be left open to allow further treatment, or to allow infection to clear. The internal organs, including the bowel, may be left exposed. Sometimes fistulas can form (a fistula is an abnormal passage between either the inside of the body and the skin, or 2 internal organs).

Open abdomens may be managed in different ways, including using a 'Bogota bag' (a sterile plastic bag to contain the bowel), systems with a zip, or dressings.

NICE has looked at using vacuum therapy as another treatment option. Click on to the next page to find out more.

## The procedure

The aim of vacuum therapy is to remove infected material, stop fluid escaping and help the wound heal. A permeable film, which allows fluid to pass through it, is placed over the wound and a foam sponge or other dressing such as gauze is placed on top. A drainage tube is placed in the sponge and everything is covered with a transparent sticky film to seal the wound. A small pump then sucks away excess fluid from the wound (the vacuum part of the treatment). A sensing device in the form of a pad placed on top of the foam may be used to make sure that the right amount of suction is used.

## Benefits and risks

When NICE looked at the evidence, it decided that this procedure was safe enough and works well enough to use in the NHS. The 7 studies that NICE looked at involved a total of 5263 patients.

Generally, they showed that:

- Roughly half (45% to 58%) of patients' wounds could be surgically closed after vacuum therapy compared with rates of 13% to 78% for other types of temporary dressing.
- A small number of patients needed an artificial patch to the abdominal wall afterwards – but this also happened after other techniques were used.

The studies also showed some problems, although these patients were very ill and there is no evidence that they were caused by the procedure:

- fistula (an abnormal leak from the bowel)
- patients needing to be fed intravenously (into a vein) for more than 4 weeks
- abscess (a collection of pus usually caused by an infection)
- bleeding.

Some of the patients died in some of the studies. The proportion of patients who died after vacuum therapy (22% to 30%) was similar to the number who died after other types of temporary dressing (16% to 33%). Again, there was no evidence that the deaths were linked to the procedure used.

If you want to know more about the studies see the [guidance](#). Ask your health professional to explain anything you don't understand.

## Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

## About this information

NICE's HealthTech guidance applies to people who use the NHS in England, Wales, Scotland and Northern Ireland.

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