

Stroke: decompressive hemicraniectomy surgery in people under 60

Patient decision aid

What is decompressive hemicraniectomy surgery?

When a person has a severe stroke, sometimes the brain can swell. The pressure inside their skull builds up and they can die. NICE says that an option for some people is surgery to ease the pressure by removing part of the skull. This surgery is called **decompressive hemicraniectomy**. The part of the skull that's removed can be replaced by a plate in another operation later on. The surgery won't undo any damage already done to the brain by the stroke, but it could stop damage to parts of the brain that haven't been affected yet.

There are pros and cons to this kind of surgery. Often, people who have had a severe stroke are not well enough to decide for themselves **whether to have the surgery or not**. This decision aid can help the person's family members or carers and their stroke team make the decision together.

Information about how this decision aid was produced and the evidence on which it is based is available on the NICE website.

What are the pros and cons of decompressive hemicraniectomy?

People who have decompressive hemicraniectomy are more likely to survive than people who don't, but many survivors have severe disability. 'Severe disability' means the person is not able to attend to their own bodily needs or walk without help. They might need constant nursing care and attention, not be able to get out of bed, not be able to speak properly or understand speech, have seizures (fits), be incontinent, and have problems with mood, particularly depression. Decompressive hemicraniectomy may also cause scarring and changes to the person's facial features.

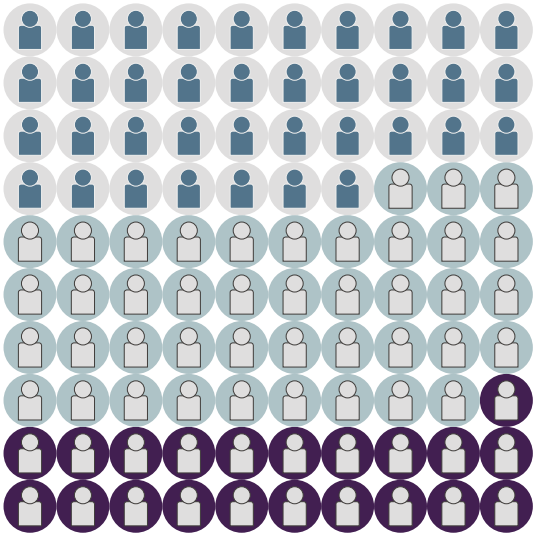
If the person is not well enough to decide for themselves whether or not to have the operation, it is important to think about how they would feel about the possibility of having these kinds of disabilities. It is also important to consider how well they were before their stroke, and what their wishes and preferences might be.

The diagrams on the next page show what is likely to happen to 100 people who do and do not have this kind of surgery.




It is not possible to know in advance what will happen to any individual person.

Death and disability 1 year after the stroke in people under 60

Death and disability with decompressive hemicraniectomy






On average, for every 100 people who **have** decompressive hemicraniectomy, in the first year after their stroke:


-  37 people survive with moderate disability
-  42 people survive with severe disability
-  21 people die

Death and disability without decompressive hemicraniectomy



On average, for every 100 people who **do not have** decompressive hemicraniectomy, in the first year after their stroke:

-  25 people survive with moderate disability
-  12 people survive with severe disability
-  63 people die

 These diagrams are based on the best studies available, but the evidence is limited. **It is not possible to know in advance what will happen to any individual person.**

In the year after surgery, people in both groups may have seizures (fits) or become depressed. All surgery carries the risk of other problems too. The stroke team can explain more about these risks and what can be done to reduce them.

Moderate disability means being able to do some but not all of the things the person used to be able to do. They need some help with things but can walk without someone helping them.

Severe disability means the person is not be able to attend to their own bodily needs or walk without help. They might need constant nursing care and attention, not be able to get out of bed, not be able to speak properly or understand speech, or be incontinent.