

Repetitive transcranial magnetic stimulation for depression

Information for the public

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What has NICE said?

Transcranial magnetic stimulation for depression is safe enough and works well enough for use in the NHS, although the benefits vary for different people.

What does this mean for me?

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 the procedure. All of this should happen before you decide whether you want to have this procedure or not.

The condition

Depression is common. It causes feelings of sadness, despair, hopelessness, and guilt or low self-worth, as well as tiredness, lack of interest in life and difficulty concentrating. People with severe depression may be unable to eat or sleep, or to take part in social

activities, may become completely withdrawn and may have suicidal thoughts. The condition can last from weeks to years, and can recur.

Treatments for depression include psychological (talking) therapies and antidepressant medicines. In severe depression that has not improved with other treatments, electroconvulsive therapy (ECT) is sometimes used. ECT is used with a general anaesthetic. It involves applying an electric current to the brain so strong that it causes seizures (fits) and sometimes memory loss.

NICE has looked at using [transcranial magnetic stimulation](#) as another treatment option that is safer and doesn't need to be done under anaesthetic. NHS Choices (www.nhs.uk) and NICE's [information for the public about depression](#) may be good places to find out more.

The procedure

The procedure does not need to be done under general anaesthetic and you can leave hospital the same day.

An electromagnetic coil is held against the scalp, which creates electric currents in certain parts of the brain. Treatment involves daily sessions of about 30 minutes, lasting for 2–6 weeks.

Benefits and risks

When NICE looked at the evidence, it decided that transcranial magnetic stimulation for depression is safe enough and works well enough for use in the NHS. NICE looked at 7 studies involving over 6000 patients.

Generally, the studies showed that the treatment improved depression symptoms and quality of life. In some cases, it allowed patients to stop taking antidepressants.

The studies showed that the risks of the procedure were:

- 1 partial seizure in 1 patient
- 1 manic episode in 1 patient

- problems sleeping in 1 patient
- joint pain in 1 patient
- minor pain, scalp discomfort and facial twitching in a small proportion of patients
- drowsiness in 12 patients
- reddening of the skin in 6 patients.

Specialists also advised NICE that their patients have experienced these side effects after the treatment: discomfort, unpleasant twitching, temporary confusion and problems with memory, and temporary hearing loss.

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?

About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

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Accreditation

