Electroconvulsive therapy (ECT)

Explains what electroconvulsive therapy (ECT) is, when it might be used and what happens during the treatment.

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Contents

What is electroconvulsive therapy (ECT)? ................................................................. 2
How do I decide whether to have ECT? ................................................................. 3
Consenting to ECT .................................................................................................. 5
What are ECT treatment sessions like? ................................................................. 8
What are the side effects of ECT? ........................................................................ 11
What alternatives are there to ECT? ................................................................. 12
Useful contacts ......................................................................................................... 13
What is electroconvulsive therapy (ECT)?

Electroconvulsive therapy, or ECT for short, is a treatment that involves sending an electric current through your brain, causing a brief surge of electrical activity within your brain (also known as a seizure). The aim of the treatment is to relieve the symptoms of some mental health problems.

ECT is given under a general anaesthetic, so you aren't awake during the treatment.

What problems can ECT treat?

The National Institute for Health and Care Excellence (NICE) recommends that ECT is only used to achieve quick, short-term improvements if you have:

- severe or life-threatening depression and your life is at risk so you need urgent treatment
- moderate to severe depression and other treatments such as medication and talking therapies haven't helped you
- catatonia (staying frozen in one position, or making very repetitive or restless movements)
- a severe or long-lasting episode of mania.

Repeated ECT is only recommended if you have previously responded well to it, or if all other options have been considered.

ECT is not recommended for ongoing management of schizophrenia, or as a routine treatment for mild to moderate depression.

You can read full guidelines on the NICE website for using ECT to treat catatonia, mania or schizophrenia, and as one of the treatments for moderate or severe depression.

Is ECT effective?

It's very difficult to know how ECT works, or how effective it is. Many different theories have been suggested, but research hasn't shown what effects it has or how these might help with mental health problems.

Some people find ECT helpful while others don't. If you are thinking about having ECT, it's important that you are given full information about the treatment. See our page on deciding to have ECT for more information.

Supporting someone else

If you're worried about someone who may have ECT treatment, our pages on how to cope when supporting someone else and helping someone else seek help give suggestions on what you can do, and where you can go for support.
“It didn’t work overnight but as my course of nine progressed I could feel the huge weight of black, black fog lift from my mind.”

Why is ECT controversial?

The use of ECT can be controversial for several reasons:

- **It was used unethically in the past.** ECT was used far more in the 1950s to 1970s than it is today, and it was used without anaesthetic and often without consent. This has sometimes been shown in films and TV shows, which may not reflect how ECT is carried out today.

- **It can sometimes cause memory loss.** This is often short-term, but can be longer-lasting as well. See our page on the side effects of ECT for more information.

- **Some people are offered ECT without being offered other treatments they may prefer to try first,** such as talking therapies for depression.

- **Professionals disagree about whether to use it.** Some healthcare professionals see ECT as a helpful treatment, while others say it should not be used.

How do I decide whether to have ECT?

Deciding whether or not to have ECT can be difficult. Usually you will only be offered it if you are very unwell, so you might find it harder to take in information and make decisions.

You should be given full information about the treatment so you can make an informed decision. Unless you are unable to make the decision for yourself, it is your choice whether you accept the treatment or not.

You may find it helpful to discuss it with a trusted friend or family member, or a mental health advocate. See our information on advocacy in mental health, or contact POhWER or Rethink Mental Illness to find out about advocacy services in your area.

Why might I consider having ECT?

- If ECT improves your mental health, the effects are usually felt quickly.

- ECT could be helpful if you have stopped eating and drinking or looking after yourself due to severe depression.

- If you have depression after having a baby (postnatal depression), ECT might make it easier to care for and bond with your baby.

- ECT may reduce suicidal feelings, although there is no evidence that it prevents suicide.

Why might I decide against ECT?
Any helpful effects are likely to be short-term. ECT can’t prevent future depression, or fix any ongoing stresses or problems that are contributing to how you’re feeling.

Some people have very bad experiences of ECT, for example because they feel worse after treatment or are given it without consent.

You might not want to risk the possibility of getting side effects.

“It was suggested by my psychiatrist as a last resort since my depression was resistive to multiple medications that had been tried and multiple types of talking therapies”

**Who should avoid having ECT?**

Before a course of ECT treatments, you will need a full medical examination to make sure the treatment is safe for you. You will be asked about:

- **your medical history** – in case you have other health problems that should be treated first, or which mean you shouldn’t have the treatment

- **whether you are pregnant** – ECT can be used in pregnancy, but there may be concerns about giving you anaesthetic while pregnant

- **any medicine you are taking** – some prescribed drugs can affect your response to ECT, meaning the treatment needs to be adjusted

- **any allergies you have.**

**NICE guidance**

NICE recommends in its guidance on ECT that, before you are offered ECT, doctors should consider:

- the risks of general anaesthetic
- other medical conditions you might have
- possible adverse effects, especially memory loss
- the risks of not having treatment.

Doctors should take extra caution about recommending ECT if you are at higher risk of adverse effects. This includes if you are:

- a pregnant women
- an older person
- a child or young person.

You should be assessed after each ECT session, and you should not receive any more ECT if you:

- have already been helped by the treatment so you don’t need any more
show signs of serious adverse effects, such as memory loss.

If you have had ECT for depression before and it didn't help, you should only be given it again if:

- you and your doctors are sure that all other possible treatments have been tried
- you have discussed the possible benefits and harms with your doctor and also with a friend or family member, if you want them to be included.

Consenting to ECT

Some of the information on this page is legal information, which applies to adults in England and Wales.

It covers the following:

- How do I make an informed choice and give consent?
- Can I be given ECT without my consent?
- Advance decisions about ECT.

How do I make an informed choice and give consent?

You have the right to make an informed decision about whether or not to accept the treatment a doctor suggests. To consent properly you need enough information to be able to weigh up the risks and benefits of having it.

You should be given full information, in language you can understand, about:

- the expected benefits of the treatment
- any side effects and the risk of harm
- how the treatment will be given
- alternative treatments
- the alternative of having no treatment at all.

It can be hard to take in a lot of new information in one go, so you can ask for medical staff to explain it to you more than once if necessary.

You should be given 24 hours to think about your decision.

The ECT Accreditation Service (ECTAS) recommends that you have a friend, relative or advocate with you when you are given the information, so that they can go over it with you again.
Questions for your doctor

If ECT is recommended by your doctor, you or your friend, relative or advocate might want to ask them the following questions:

- What is the reason for suggesting ECT?
- What are the risks of ECT?
- How could ECT help me?
- What are the side effects?
- Are there any long-term effects?
- Have I been offered every available alternative treatment?
- What treatment will I be offered in addition to, and after, ECT?
- What is the risk that I will feel worse afterwards?
- How many treatments are suggested?
- How will the dosage be decided?
- What can I expect if I refuse this treatment?

What happens if I decide to consent to ECT?

If you agree to the treatment, you will have to sign a written consent form. Once you have signed a consent form, you should be informed that you can change your mind at any stage in the treatment and that, if you do, the treatment will be stopped.

You should also be told how you can tell staff if you have changed your mind. At each stage of the treatment, the doctor should confirm with you that you are continuing to consent.

ECTAS recommends that, if you decide to go ahead with having ECT but your relatives or close friends disagree with this treatment, this should also be recorded in your notes.

See our page on deciding whether to have ECT for more information about making this decision.

ECT and the Mental Health Act 1983

If you are detained under the Mental Health Act 1983, ECT can normally only be given if you consent to it and your approved clinician or a second opinion appointed doctor (SOAD) certifies that you’ve consented, and that you have capacity to do so.

If you are in hospital under sections 4, 5(2) or 5(4) of the Mental Health Act 1983, you cannot be given ECT without your consent, except in an emergency.
If you are on a community treatment order (CTO), ECT can normally be given only if you consent to it and your approved clinician certifies that you've consented (and have capacity to do so).

Can I be given ECT without my consent?

You may be given ECT without your consent if you need emergency treatment or if you don't have capacity to consent to it.

Emergency treatment

The Mental Health Act 1983 sometimes allows ECT to be given without your consent in an emergency, but only if the treatment is immediately necessary for any of the following reasons:

- If it will save your life.
- If it will prevent your condition seriously worsening, and won't have unfavourable physical or psychological consequences that can't be reversed.

If you do not have capacity to give consent

If you don’t have capacity to give consent, treatment may be given under the Mental Health Act 1983 or, less commonly, under the Mental Capacity Act 2005.

Under some sections of the Mental Health Act 1983

If you have been detained under certain sections of the Mental Health Act 1983, you may be given ECT without your consent if all of the following apply:

- You are detained under the Mental Health Act 1983, except if you are detained under sections 4, 5(2) or 5(4).
- You are unable to understand the information about ECT and cannot give informed consent.
- You have not previously made an advance decision, or there is not a decision made by an attorney, deputy or the Court of Protection refusing ECT treatment.
- A second opinion specialist who is not involved in your care consults with two people who have been professionally involved with your care and also agrees that ECT should be given.

Under the Mental Capacity Act 2005

If you are not detained under the Mental Health Act 1983, you may still be treated without your consent under the Mental Capacity Act 2005. This can only happen if all of the following apply:

- You are assessed as lacking capacity to consent under the Mental Capacity Act 2005.
• You have not previously made an advance decision refusing ECT treatment.
• It is considered to be in your best interests to receive the treatment.

Before a decision is made on whether ECT is in your best interests, various people need to be consulted, including:
• anyone interested in your welfare, such as a carer or close family member
• your attorney (if you have appointed one) and deputy (if the Court of Protection has appointed one).

If there is a disagreement over whether ECT is in your best interests, it may be necessary to apply to the Court of Protection to resolve this disagreement.

**Advance decisions about ECT**

If you are clear you do not wish to receive ECT even if your life is in danger, your advance decision needs to meet special conditions.

ECT should not be given to you if any of the following conditions apply:
• You have already made a valid and applicable advance decision refusing ECT.
• Your attorney has refused ECT on your behalf under a lasting power of attorney.
• A court-appointed deputy, or a court, has refused ECT on your behalf.

Your family should also be consulted in all of these cases, if appropriate.

**What are ECT treatment sessions like?**

**Do I have to be an inpatient to have ECT?**

It’s more common to have ECT as an inpatient in a hospital, which means you will stay in hospital overnight. But outpatient treatment is sometimes possible – this means you won’t have to stay overnight.

If you’re staying in a hospital that doesn’t offer ECT, you’ll need to visit another hospital with an ECT clinic to have the treatment.

If you are an outpatient, you will need to have someone with you to accompany you home, as it’s important that you aren’t alone when leaving hospital. You, or your friend or family member who is with you, should be asked at the hospital to confirm that:
• you will be accompanied home and have someone with you for 24 hours after treatment
• you will not drive during your course of treatment, or until the psychiatrist has told you it’s ok
• you will not drink alcohol for at least 24 hours after treatment, or until you have been told it’s ok
• you will not sign any legal documents for at least 24 hours after treatment, or until you have been told it’s ok.

What is the ECT clinic like?

The ECT clinic should have three rooms:
• a waiting area, which should be comfortable and provide a relaxing environment
• a treatment room, which should have the equipment required for monitoring and for resuscitation in an emergency, as well as the ECT machine
• a recovery room.

The clinic should be organised so that the rooms are separate and you can move easily from one room to the next, without people observing you from other rooms. Staff at the clinic will usually include nurses, psychiatrists and anaesthetists.

Where can I find out about the clinic I’m visiting?

ECTAS provides a set standards for the use of ECT in the UK, including how the clinic is set up and how treatment is administered. It also has a list of clinics which meet these standards across different areas of the country.

“I was so surprised after my first treatment that it was nowhere near as bad as I had anticipated it being.”

How can I prepare for ECT?

To prepare for ECT, you should:
• wear loose, comfortable clothing
• tell the team if you have had cosmetic dentistry such as veneers or implants, or any piercings.

And you should not:
• eat or drink anything (except a few sips of water) for at least six hours before treatment, because of the anaesthetic given just before treatment
• wear any hairspray, creams, make-up, nail polish, metal hair slides or grips, or piercings.

What happens during ECT?

• Before the treatment starts, you will lie on a bed and your jewellery, shoes and any dentures will be removed and kept safe for you.
• You will be given a general anaesthetic injection, once you are comfortable.
Once the anaesthetic takes effect and you are unconscious, you will be given an injection of muscle relaxant to stop your body from convulsing during the treatment. You will also be given oxygen through a face mask or tube. This is needed because of the muscle relaxant.

Two padded electrodes will be placed on your temples. You will either have one placed on each side of your head (bilateral ECT), or both placed on the same side of your head (unilateral ECT) – there is more information about this below.

A mouth guard will be placed in your mouth, to stop you biting your tongue.

The ECT machine will deliver a series of brief, high-voltage electrical pulses. This will cause you to stiffen slightly, and there may be some twitching movements in the muscles of your face, hands and feet. The seizure should last for 20 to 50 seconds.

“The actual treatment was disorientating and overwhelming... I was overwhelmed by how quickly it was happening.”

What are bilateral and unilateral ECT?

- Bilateral ECT means that two electrodes are placed on your temples, one on each side of your head, so the electric current passes across your whole brain.

- Unilateral ECT means that two electrodes are placed together on one temple, so only one side of your brain is stimulated.

Both types cause a seizure of the whole brain. Bilateral ECT is more commonly used and is believed to be more effective, but may also be more likely to cause memory problems. Unilateral ECT can have fewer side effects, but may also be less effective.

You may be given unilateral ECT if it has helped you in the past, or if you have had unpleasant side effects after bilateral ECT.

What happens after ECT?

After the seizure, the mouth guard is removed and you will be turned on your side. The anaesthetist will provide oxygen until the muscle relaxant wears off (after a few minutes) and you start breathing on your own again.

You will slowly come round, although you may feel very groggy. You may sleep for a while after treatment.

You will need to recover from the general anaesthetic as well as the ECT treatment itself.

How many treatment sessions might I have?

ECT is usually given twice a week for 3-6 weeks, meaning you might have around 6-12 sessions. You should be assessed after each treatment to see if another one is necessary, or isn’t advisable.
ECT tends to provide short-term improvements, so it can be helpful to try other types of treatments after having it. This could help you make the most of any improvement you have experienced from ECT.

What are the side effects of ECT?

Memory loss

Many people experience memory loss after having ECT. Some people find this only lasts for a short time and their memories gradually return as they recover from ECT.

But some people experience more long-lasting or permanent memory loss, including losing personal memories or forgetting information they need to continue in their career or make sense of their personal relationships. Some people also find they have difficulty remembering new information from after they’ve had ECT.

Guidelines say that you should have a standard test of your memory and thinking abilities as part of your assessment before treatment and after each treatment session.

“I became unable to study or read as I simply couldn’t concentrate and my ability to absorb or retain new information has decreased to almost non-existent”

Immediate side effects

You may experience other side effects immediately after treatment. These can include:

- drowsiness (you may sleep for a while)
- confusion
- headache
- feeling sick
- aching muscles
- loss of appetite.

Very rarely, people may experience prolonged seizures.

Some people also:

- injure their teeth or jaw, or other muscles, although should be minimised by the muscle relaxant
- become very confused between treatments, or more rarely become very restless or agitated.

There are also some risks associated with general anaesthetic. You can speak to your doctor or healthcare team if you have any questions about this.

“Immediately after treatments I was drowsy but not in pain and there were occasions of feeling nauseous.”
Longer-term side effects

Longer-term effects can include:

- apathy (loss of interest in things)
- loss of creativity, drive and energy
- difficulty concentrating
- loss of emotional responses
- difficulty learning new information.

What alternatives are there to ECT?

NICE guidelines say you should only be offered ECT if you have tried other treatments and found them unsuccessful, unhelpful or unacceptable, or you are so unwell that you are unable to benefit from them.

These other treatments might include medication, talking therapies, or arts and creative therapies.

If these treatments haven’t helped, it doesn’t mean you have to try ECT. Our guide to seeking help for a mental health problem has some suggestions for other treatments you could try.

Other physical treatments

Transcranial magnetic stimulation (TMS)

TMS is another physical treatment which can sometimes be used as an alternative to ECT or antidepressants. It stimulates the brain using magnetic fields.

NICE guidance says that there are no major safety concerns with TMS. Research has shown that it can be helpful in treating depression, but the benefits may vary for different people. TMS is now available on the NHS in some hospitals.

The advantages of TMS are that it does not require a general anaesthetic, and does not normally cause a seizure, so is much less likely than ECT to cause memory loss.

Neurosurgery

If nothing else has helped, including ECT, and you are still severely depressed, you may be offered neurosurgery for mental disorder (NMD), deep brain stimulation (DBS), or vagus nerve stimulation (VNS).
Useful contacts

Mind’s services

- **Helplines** – all our helplines provide information and support by phone and email. Our Blue Light Infoline is just for emergency service staff, volunteers and their families.
  - Mind’s Infoline – 0300 123 3393, info@mind
  - Mind’s Legal Line – 0300 466 6463, legal@mind
  - Blue Light Infoline – 0300 303 5999, bluelightinfo@mind
- **Local Minds** – there are over 140 local Minds across England and Wales which provide services such as talking treatments, peer support, and advocacy. Find your local Mind here, and contact them directly to see how they can help.
- **Elefriends** is a supportive online community for anyone experiencing a mental health problem. See our Elefriends page for details.

Who else could help?

**Electroconvulsive Therapy Accredication Service (ECTAS)**

ectas.org.uk
Sets standards for ECT services.

**National Institute for Health and Care Excellence**
nice.org.uk
Publishes guidelines on treatment.

**POhWER**
pohwer.net
0300 456 2370
Provides advocacy services.

**Rethink Mental Illness**
rethink.org
0300 5000 927
For everyone affected by severe mental illness.

**Royal College of Psychiatrists**
rcpsych.ac.uk
Provides information on conditions and treatments.
References are available on request.