Making sense of
Electroconvulsive therapy (ECT)

making sense

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This booklet explains what ECT is, what it can treat, what the treatment is like and possible side effects. It also covers the law around consent to treatment.
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What is ECT?

ECT is a treatment that involves sending an electric current through the brain to trigger an epileptic seizure to relieve the symptoms of some mental health problem. The treatment is given under a general anaesthetic and using muscle relaxants, so that your muscles only twitch slightly, and your body does not convulse during the seizure.

What problems can ECT treat?

ECT is mainly used if you:

- have severe, life-threatening depression
- have not responded to medication or talking treatments
- have found it helpful in the past and have asked to receive it again
- have severe postnatal depression

It may sometime be used if you:

- are experiencing a manic or psychotic episode which is severe or is lasting a long time
- are catatonic (staying frozen in one position for a long time; or repeating the same movement for no obvious reason; or being extremely restless, unrelated to medication)

It may also be used when it is important to have an immediate effect; for example, because you are so depressed that you are unable to eat or drink, and are in danger of kidney failure.

Is ECT effective?

No-one is sure how ECT works, but it is known to change patterns of blood flow in the brain, and also change the way energy is used in parts of the brain that are thought to be involved in depression. It may cause
changes in brain chemistry, although how these are related to symptoms is not understood.

The ECT Accreditation Service (run by the Royal College of Psychiatrists, see 'Useful Contacts' on p20) reported on a survey of 78 ECT clinics in England and Wales in 2012-2013. This reported the results of 1895 courses of treatment in 1789 people:

- improved ('minimally', 'much' or 'very much'): 1712
- no change: 113
- worse: 28

"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 history of ECT
In the past (1950s to 1970s), ECT was used far more than it is now. It was done without anaesthetic and often without consent, and far more treatments were given than is common now. Many people experienced it as more of a punishment than a treatment.

Some people think it is still administered in the same way, and it has also been depicted in quite barbaric ways on film. So people often have a false impression of what ECT is really like now.

Adverse effects
The main side effect is memory loss (which is also common after seizures caused by epilepsy). This is usually short-term, but can be very significant, disabling and long-lasting in some people and is a cause of anxiety.

Personal experiences

People’s experience of ECT varies enormously. Some people find it the
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most useful treatment they have had, and would ask for it again if they needed treatment for depression. Others feel violated by it, and would do anything to avoid having it again.

How do I decide to have ECT?

Deciding whether or not to have ECT may be very difficult. Usually you will only be offered it if you are very depressed, which in itself makes it difficult to take in information and make decisions based on what you have been told. But you have the right to full information about the treatment, and to decide for yourself whether or not you wish to receive it.

Generally, unless you are unable to make a decision for yourself, it is your decision 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. You can contact POhWER or Rethink Mental Illness to find out about advocacy services in your area (see 'Useful Contacts' on p20).

Advantages of ECT:

- When it works, it works quickly.
- It can prevent death if you are so depressed you are unable to talk, and you have stopped eating and drinking and looking after yourself.
- If you have depression after childbirth, it can lift these feelings quickly so that you are able to care for and enjoy your baby.
- It may lift suicidal feelings (but there is no evidence that it prevents suicide).

Disadvantages of ECT:

- Even if it has worked, often the effects don’t last long, and it can’t address any underlying despair or life problems you may have, or prevent future depression.
- Some people find it overwhelmingly negative and may feel worse after
How do I decide to have ECT?

- Side-effects, especially memory loss, which is usually short lived, but may be very significant in some cases.

It is important that you are offered other types of treatments in the period following ECT so that you can make the most of any improvement it has given you. These might include talking treatments or arts therapies which you may have been too depressed to make use of before, as well as medication.

*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.*

When should I avoid having ECT?

Before a course of ECT treatments, you will need a full medical examination. You will be asked about:

- your medical history – if you have any physical problems, these should be treated, as far as possible, before you have ECT. If you have heart or circulation problems, or breathing problems, both the ECT itself and the anaesthetic may be more dangerous for you.
- whether you are pregnant – ECT may be used in pregnancy, but the anaesthetist may not be happy about giving a general anaesthetic to a pregnant woman, except in a medical emergency.
- any medicine you are taking – some prescribed drugs affect your response to ECT:
  - some antidepressants (such as fluoxetine) may cause the seizure to last longer than normal
  - some drugs, including benzodiazepine tranquillisers, make it more difficult to induce a seizure so that a higher dose of electric current has to be used.
- any drug allergies.
NICE guidance

The National Institute for Health and Care Excellence (NICE) (see 'Useful Contacts' on p20) says that before you are offered ECT, doctors should consider the risks of the treatment. These include:

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

Extra caution should be used as the risks of ECT may be higher in the following groups, for:

- pregnant women
- older people
- children and young people (it should not be used for depression in children under the age of 12)

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

- have had a positive response so that more treatment is unnecessary
- show signs of serious adverse effects, such as memory loss

If you have had ECT for depression before and it did not 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 the doctor and also with a friend or family member, if you want them to be included
Can I be given ECT without my consent?

Making an informed choice and giving 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
- 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 it and 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. ECTAS also recommends that, if your relatives or close friends disagree with your treatment, this should be recorded in your notes, together with the reasons for going ahead with it.

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.

Questions for your doctor

If ECT is recommended, you (or your friend or relative) might want to ask the following questions:

- What is the reason for suggesting ECT?
- What are the risks of ECT?
- How could ECT help?
- 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 will happen to me if I refuse this treatment?

If you are subject to the Mental Health Act 1983, ECT can normally be given only if you consent to it and a second opinion appointed doctor (SOAD) or approved clinician (i.e. approved by the Welsh Ministers) certifies that you've consented (and have the capacity to do so).

Treatment without 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 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:

- to save your life
• to prevent your condition seriously worsening (and the treatment doesn't have unfavourable physical or psychological consequences that can't be reversed)

If you do not have capacity

If you cannot give consent, treatment may be given under the Mental Health Act or (less commonly) under the Mental Capacity Act.

Under some sections of the Mental Health Act
You can be treated without your consent if:

• 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 a decision made by an attorney, deputy or the Court of Protection refusing ECT treatment, and
• a second opinion specialist who is not involved in your care also agrees that it should be given

Under the Mental Capacity Act 2005
You may be treated without your consent if:

• you are assessed as lacking capacity to consent (under the Mental Capacity Act 2005), and
• you have not previously made an advance decision refusing ECT treatment, and
• it is considered to be in your best interests to receive the treatment

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. If you have already made a valid and applicable advance decision refusing ECT,
or your attorney under a Lasting Power of Attorney, or a court-appointed deputy, or a Court has refused ECT on your behalf, then the ECT should not be given to you.

In all cases your family should also be consulted if appropriate.

What is the treatment like?

Do I have to be an inpatient?
Not necessarily. You usually receive ECT as an inpatient in a hospital, but outpatient treatment is possible.

If you are an outpatient, you will need to have someone with you to accompany you home - you should not return alone to an empty house. You (or your friend or family member who is with you) should be asked 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, or until you have been told it’s ok
- you will not sign any legal documents for at least 24 hours or until you have been told it’s ok.

What is the ECT clinic like?

The ECT Accreditation Service sets standards for the administration of ECT, and there is a list of participating clinics, and the standards they have met, on the Royal College of Psychiatrists website (see 'Useful Contacts' on p20).

The ECT treatment centre should consist of a suite of 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 resuscitation in addition to the ECT machine
• a recovery room.

The suite should be organised so that the rooms are separate and you are able to move easily from one room to the next, and cannot observe other people in adjacent rooms.

Clinic staff
The staff should consist of:

• nurses, including:
  • a trained nurse manager in overall charge of the ECT session
  • a nurse, who you know and trust, who is with you during all stages of treatment
  • a nurse trained in resuscitation
• a medical team including:
  • a senior psychiatrist
  • a senior anaesthetist
  • an assistant to the anaesthetist.

What happens during the procedure?

ECT is carried out under a general anaesthetic and with a muscle relaxant. Because of the anaesthetic, you must not eat or drink anything (except a few sips of water) for at least six hours beforehand.

• You should wear loose, comfortable clothing
• You should not be wearing any hairspray, creams, make-up or nail polish, or have any metal slides or grips in your hair, or piercings.
• Let the team know if you have had cosmetic dentistry such as veneers, implants or piercings
• You will lie on a bed, and your jewellery, shoes and any dentures will
be removed and kept safe for you.

- Once you are comfortable, you will be given a general anaesthetic, via an injection.
- While you are unconscious, you will receive an injection of muscle relaxant to minimise the convulsions caused by the electric current. Because of the muscle relaxant, you will be given oxygen, and the anaesthetist will look after your breathing, using a face mask and a pressure bag.
- Two padded electrodes will be placed on your temples, either one on each side of your head (bilateral ECT), or both on the same side (unilateral ECT) (see below for more information).
- 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 – about 60 to 70 pulses a second, for three to five seconds, causing you to have a seizure, or fit. This will cause you to stiffen slightly, and there may be twitching movements in the muscles of your face, hands and feet. The seizure should last 20 to 50 seconds.

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

**What is bilateral or unilateral ECT?**

- Bilateral means that one electrode is placed on each temple so that the whole brain is stimulated
- Unilateral means that both electrodes are place on one temple, so that only one side of the brain is stimulated.

Both types cause a seizure of the whole brain. Bilateral ECT may be more effective, but unilateral is sometimes thought to cause fewer memory problems. However, with unilateral you may need a higher dose of electricity to cause the seizure, and this may increase the likelihood of memory loss with this method, so that it is not in fact very different from bilateral.
Bilateral placement is more commonly used. You may receive unilateral ECT if you have had unpleasant side effects after bilateral, or if you have responded well to unilateral ECT in the past.

**How strong is the electric current?**
The strength of electric current needed to produce a fit is called the seizure threshold. This varies from person to person:

- it is higher in men than in women
- it may be affected by medication you may recently have taken
- it increases with age, meaning that older people need a stronger electric current
- it depends on the exact position of the electrodes on your head
- it depends on the amount of anaesthetic you have been given

The ‘dose’ of electric current given to you will be adjusted to take all of these things into account.

- if the dose is too low (below the threshold), there will be no benefit from the ECT
- the higher the dose, the greater the risk of unpleasant side effects, so it’s important that the dose is kept as close as possible to the threshold.

**What happens immediately after?**
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 treatments will I have?
You should not normally be prescribed more than two treatments at one time, although a maximum number (usually 12) may be prescribed beforehand. You should be assessed after each treatment to see if another one is necessary, or is inadvisable.

The treatments should normally take place twice a week, although three treatments may be given in one week if you have a severe or life-threatening illness.

After a course of treatment you should be seen by the mental health team at least once a month for three months.
I was so surprised after my first treatment that it was nowhere near as bad as I had anticipated it being.

What are the side-effects?

Memory loss
This is the most important side effect of ECT, and the one which causes most concern. It is usually a short-term effect, and most people find their memories gradually return as they recover from ECT.

However, for some people, memory loss can mean both losing personal memories, and having difficulty remembering new information. Some people have been so badly affected that they have lost key skills or knowledge, such as expertise needed to continue their professional work or career.

“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.”

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.

**Immediate side effects**
Other side effects that may occur immediately after treatment are:

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

Very rarely, people may experience prolonged fits, especially if they are taking drugs or have medical conditions which lower the seizure threshold (see 'How strong is the electric current?' on p15).

Some of the symptoms listed above may subside quickly, but some may last for weeks, months, or even permanently.

Some people have also:

- had injuries to their teeth or jaw, or other muscles, but physical injury from the convulsions should be minimised by the muscle relaxant.
- become very confused between treatments, and on rare occasions may become restless or agitated.

The general anaesthetic (as for any procedure where it is used) carries a risk of illness and a very small risk of death, separate from the ECT treatment itself.

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

Longer term effects 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?

If the NICE guidelines are being followed, you will only be offered ECT (in most cases) if you have tried other treatments and found them unsuccessful, unhelpful or unacceptable, or you are so unwell you are unable to engage with them. These should have included antidepressant drugs, talking therapies and arts therapies.

This doesn't mean you have to try ECT; you can choose to try other treatment again. There may be new drugs, or better access to different talking treatments, since you last tried a treatment.

Other physical treatments

Transcranial magnetic stimulation (TMS)
This is another physical treatment which is considered to be comparable to ECT. It stimulates the brain using magnetic fields. It is approved as a treatment for migraine.

NICE guidance says that TMS is safe, but there is not sufficient evidence that it is effective for depression for it to be offered in NHS hospitals, unless you are taking part in research. It is available for depression in some private hospitals.
The advantage 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, deep brain stimulation, or vagus nerve stimulation.
Useful contacts

National Institute for Health and Care Excellence (NICE)
web: nice.org.uk
For guidelines on treatment.

POhWER
web: pohwer.net
tel: 0300 456 2370
Advocacy charity and membership organisation providing advocacy services in the UK.

Hearing Voices Network
tel: 0114 271 8210
web: hearing-voices.org
Information and support for people who hear voices or have other unusual perceptions.

Rethink Mental Illness
tel: 0300 5000 927
web: rethink.org
Information, advice and support for people with mental health problems.

Royal College of Psychiatrists
web: rcpsych.ac.uk
Information on conditions and treatments, and access to the ECTAS list of accredited ECT services.
Further information

Mind offers a range of mental health information on:
• diagnoses
• treatments
• practical help for wellbeing
• mental health legislation
• where to get help

To read or print Mind’s information booklets for free, visit mind.org.uk or contact Mind Infoline on 0300 123 3393 or at info@mind.org.uk

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References available on request
Mind is a registered charity No. 219830
We're Mind, the mental health charity for England and Wales. We believe no one should have to face a mental health problem alone. We're here for you. Today. Now. We're on your doorstep, on the end of a phone or online. Whether you're stressed, depressed or in crisis. We'll listen, give you advice, support and fight your corner. And we'll push for a better deal and respect for everyone experiencing a mental health problem.

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