



ECT Podcast: Ruth's experience: Dr Raj Persaud in conversation with Ruth, about her experience of ECT and its effect on her depression

## Information about ECT (Electro-convulsive therapy)

### Introduction

This leaflet is for anyone who wants to know more about ECT (Electro-convulsive therapy). It looks at how ECT works, why it is used, its effects and side-effects, and alternative treatments.

Although a safe and effective treatment, ECT remains controversial and we have included some of the different views about it.

Where there are areas of uncertainty, we have listed other sources of information that you can use. Important concerns are the effectiveness and side-effects of ECT and how it compares with other treatments. At the time of writing, these references are available free and in full on the Internet.

### What is ECT?

ECT is a treatment for a small number of severe mental illnesses. It was developed in the 1930s and was used widely during the 1950s and 1960s for a variety of conditions. It is now only used for fewer, more serious conditions.

An electrical current is passed through the brain to produce an epileptic fit – hence the name, electro-convulsive. On the face of it, this sounds odd. The idea developed in the days before effective medication. Doctors noticed that some people with depression or schizophrenia, who also had epilepsy, seemed to feel better after having a fit.

More recent research suggests that the effect is due to the fit rather than the electrical current.

### Q How often is it used?

It is now used less often. Between 1985 and 2002, its use in England more than halved, possibly because of better psychological and drug treatments for depression.

### Q How does ECT work?

No-one is certain how ECT works. We do know that it can change patterns of blood flow through the brain and change the metabolism of areas of the brain which may be affected by depression. There is evidence that severe depression is caused by problems with certain brain chemicals. It is thought that ECT causes the release of these chemicals and, probably more importantly, makes the chemicals more likely to work and so help recovery.

Immediately after ECT, many people have a headache and some aching in their muscles. They may feel dizzy-headed and generally out of sorts, or even a bit sick. Some become distressed after the treatment and may be tearful or frightened during recovery. For most people, however, these effects settle within a few hours, particularly with help and support from nursing staff, simple pain killers and some light refreshment.

There may be some temporary loss of memory for the time immediately before and after the ECT.

An older person may be confused for two or three hours after a treatment. This can be reduced by changing the way the ECT is given (such as passing the current over only one side of the brain rather than across the whole brain).

ECT causes contraction of the jaw muscles. Although the ECT Team will do all they can to minimise the risks, there remains a small chance of damage to the tongue, teeth and lips. There are particular risks where the teeth are less strong: for example if you have crowns, veneers, or implants, also bridges and partial dentures. Please let the team know have had cosmetic dental work or piercings undertaken.

There is a small physical risk from having a general anaesthetic – death or serious injury occurs in about 1 in 80,000 treatments, about the same as if you have an anaesthetic for dental treatment. However, as ECT is given in a course of treatments, the risk per course of treatment will be around 1 in 10 000.

#### ▪ Long-term

Memory problems can be a longer-term side effect. Surveys conducted by doctors and clinical staff usually find a low level of severe side-effects, maybe around 1 in 10. Patient-led surveys have found much more, maybe in half of those having ECT. Some surveys conducted by those strongly against ECT say there are severe side-effects in everyone.

Some memory problems are probably present in everyone receiving ECT. Most people feel better after the course of ECT has finished and a few weeks have passed. However, some people do complain that their memory has been permanently affected, that their memories never come back. It is not clear how much of this is due to the ECT, and how much is due to the depressive illness or other factors.

Some people have complained of more distressing experiences, such as feeling that their personalities have changed, that they have lost skills or that they are no longer the person they were before ECT. They say that they have never got over the experience and feel permanently harmed.

What seems to be generally agreed is that the more ECT someone is given, the more it is likely to affect their memory.

#### **Q What if ECT is not given?**

- You may take longer to recover.
- If you are very depressed and are not eating or drinking enough, you may become physically ill or die.
- There is an increased risk of suicide if your depression is severe and has not been helped by other treatments.

#### **Q What about driving?**

Most people who are ill enough to require to ECT will be unfit to drive. After a course of ECT you should discuss with your doctor when you are well enough to resume driving. Sometimes disorientation and impaired visual functioning may go on for several months after ECT.

## Mental Health Act

In England and Wales, ECT can be given under the Mental Health Act. This means that two doctors and another professional, who is usually a social worker, need to agree that ECT should be given.

There must then be a second opinion from an independent specialist who is not directly involved in the person's care. The clinical team should also speak to family and other carers, to find out what they think about ECT, but also to find out if the patient had any opinion about it.

## Mental Capacity Act

Sometimes - if a person doesn't have the capacity to give an informed consent - the team may decide the ECT can be given under the Mental Capacity Act. This is unusual, as in most cases, the Mental Health Act provides the best protection for a patient's rights. The Mental Capacity Act can only be used if the patient lacks capacity and a "decision maker" (usually the consultant in charge of their care) decides that ECT is in the patient's "best interests".

It is expected the decision maker will ask other people to try to find out what the person's views would have been. This would usually include family members and other people close to them. The decision maker should also make "all reasonable attempts" to help the patient to regain capacity to consent (if this is possible). An independent specialist is not needed, though the clinical team may request a second opinion from another consultant.

Whether ECT is given under the Mental Health Act or the Mental Capacity Act, the team must make regular assessments of the patient's ability to understand their treatment. Once the patient is able to give consent, the treatment can only continue if they do consent and must stop if they refuse.

In Scotland, the principles above are the same, although the laws involved are the Mental Health (Care and Treatment) (Scotland) Act 2003 and the Adults With Incapacity Act (Scotland) 2000.

## Where is ECT given?

ECT is always given in hospital. As it is generally used in severe depression, you would usually need to stay in hospital. Some people do have ECT as a day patient, but you may need to check if your local service can do this.

## How is ECT given?

The seizure is brought on by passing an electrical current across the brain in a carefully controlled way from a special ECT machine.

- an anaesthetic and muscle relaxant are given so that you are not conscious when the ECT is given.
- the muscle spasms that would normally be part of a fit – and which could produce serious injuries – are reduced to small, rhythmic movements in the arms, legs and body.

By adjusting the dose of electricity, the ECT team will try to produce a seizure lasting between 20 and 50 seconds.

## Q Is there any preparation?

In the days before you start a course of ECT, your doctor will arrange for you to have some tests to make sure it is safe for you to have a general anaesthetic. These may include:

**Unilateral ECT** is now used less. It had been thought to cause less memory loss, but recent research has shown that it is necessary to use larger doses of electricity to make it as effective as bilateral ECT. If the dose of electricity is increased to make it equally effective, the risks of memory loss are as great as with bilateral ECT.

Sometimes ECT clinics will start a course of treatment with bilateral ECT and switch to unilateral if the patient experiences side-effects. Alternatively, they may start with unilateral and switch to bilateral if the person isn't getting better.

You may wish to speak to the doctor who is suggesting ECT for you to decide whether unilateral or bilateral ECT is best for you.

### **Q How often and many times is ECT given?**

Most units give ECT twice per week, often on a Monday and Thursday, or Tuesday and Friday. It is impossible to predict how many treatments someone will need. However, in general, it will take 2 or 3 treatments before you see any difference, and 4 to 5 treatments for noticeable improvement.

A course will on average be 6 to 8 treatments, although as many as 12 may be needed, particularly if you have been depressed for a long time. If, after 12 treatments, you feel no better, it is unlikely that ECT is going to help and the course would usually stop. A member of the mental health team should check after each treatment to see how you are responding, and to check that you are not getting troublesome side-effects. Your consultant should see you after every two treatments. ECT should be stopped as soon as you have made a recovery, or if you say you don't want to have it any more.

### **Q What happens after a course of ECT?**

Even when someone finds it effective, ECT is only a part of recovering from depression. Like antidepressants, it can help to ease problems so you are able to look at why you became unwell. Hopefully you can then take steps to continue your recovery, and perhaps find ways to make sure the situation doesn't happen again. Psychotherapy and counselling can help and many people find their own ways to help themselves. Certainly people who have ECT, and then do not have other forms of help, are likely to quickly become unwell again.

### **The ECT Controversy**

There are many areas in which people disagree over ECT, including whether it should even be done at all. People tend to have very strong feelings about ECT, often based on their own experiences. The main areas of disagreement are over whether it works, how it works and what the side-effects are.

### **Q Why is ECT still being given?**

ECT is now used much less and is mostly a treatment for severe depression. This is almost certainly because modern treatments for depression are much more effective than they were in the past. These include psychotherapy (talking treatments), antidepressants and other psychological and social supports.

Even so, depression can for some people still be very severe and even life-threatening. The person may be barely able to talk, reluctant (or unable) to eat, drink or look after themselves. Occasionally a person may also develop strange ideas (delusions) about themselves or others. If other treatments have not worked, it may be worth considering ECT. It is a safe and effective treatment for severe depression.

- Electroconvulsive therapy (ECT): the clinical effectiveness and cost effectiveness of electroconvulsive therapy (ECT) for depressive illness, schizophrenia, catatonia and mania. (TA59 2003)
- Depression: the treatment and management of depression in adults (CG 90 2009)

**Scottish ECT Accreditation Network (SEAN):** A site designed to complement the work of SEAN, by enabling communication of the latest information on ECT in Scotland.

**Electroconvulsive Therapy Accreditation Services (ECTAS):** Launched in May 2003, ECTAS aims to assure and improve the quality of the administration of ECT; awards an accreditation rating to clinics that meet essential standard.

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A list of accredited facilities is available on the **Royal College of Psychiatrists' website**.

This leaflet was produced by the Royal College of Psychiatrists' Special Committee on ECT and related treatments and Public Engagement Editorial Board.

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This leaflet reflects the best available evidence available at the time of writing.

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