

Risks associated with your anaesthetic

## Section 7: Becoming confused after an operation

**S**ome people having an operation and an anaesthetic become confused afterwards. Their memory may fail them and their behaviour is quite unlike their normal selves. If this happens to you, it can be very upsetting for you, and for your family, friends or carers. However, as you recover from the effects of the operation, the confusion will also get better.

There is another type of mental change, which can also happen. Sometimes, people seem to find that their higher mental functions are not quite as good as they were before the operation and anaesthetic. For example, they cannot do the crossword quite as easily, or they find it difficult to cope with complex mental work such as problem solving or tasks needed to do their job. These changes are called Post-Operative Cognitive Dysfunction or POCD. The changes can be:

- ▶ 'early' (noted at one week after the operation and anaesthetic)
- ▶ 'late' (noted three months or more afterwards)

POCD is described in more detail at the end of this article.

### Dementia

None of these changes are the same as dementia, although some of the symptoms may be the same. People with dementia are likely to become even more confused if they have an operation.

### Mental illness

These changes are not the same as mental illness (e.g. schizophrenia), although some of the symptoms may be similar.

### Confusion after an operation

Mental confusion is common after major operations in elderly and infirm people, but can happen to anyone of any age.

Very commonly these mental changes go along with being generally unwell. You may have an infection, or have slightly lower oxygen levels than normal. You may be in pain, or be receiving strong pain relief medicines, and there are other common events, which may follow an operation and an anaesthetic, which can lead to you becoming confused. These events will all be treated as part of normal care, and the mental changes are likely to improve as the body recovers.

### What are the symptoms?

Some people become agitated and confused in their thinking and behaviour, whereas others become quiet and withdrawn. Symptoms can vary greatly, but here are some typical symptoms.

- ▶ Not knowing your own name or where you are.
- ▶ Not knowing what has happened to you or why you are in hospital.
- ▶ Difficulty in concentrating.
- ▶ Loss of memory – you may even become unable to recognise family members.
- ▶ Reversal of day and night sleep patterns – sleeping during the day and being wakeful at night.

- ▶ Being illogical or incoherent, shouting and swearing.
- ▶ Emotional changes such as tearfulness, anxiety, anger or aggression.
- ▶ Trying to climb out of bed and pulling out drips and tubes.
- ▶ Appearing indifferent to whatever is going on.
- ▶ Becoming paranoid and thinking that people are trying to harm you. This can be particularly distressing for friends and relatives.
- ▶ Occasionally, people experience visual or auditory hallucinations (seeing and hearing things that don't exist).

Here are some quotes from relatives of people who have experienced similar problems.

'We thought, that's it, she's lost her mind.'

'I thought my father-in-law had had a stroke or had suddenly developed dementia.'

'She only realised that there was something wrong because both of us were telling her.'

'She was fine the morning before the operation. I saw her afterwards and she was sleepy which I expected. I was then phoned in the night to say that she was very confused and being aggressive. She was shouting and abusing the staff and other patients. I felt terrible because I was so worried about her but at the same time embarrassed by her behaviour.'

'It was very embarrassing because of the rude things she was saying out loud. She thought that she was at home and all these people were in her house and it was very frightening for her.'

'It was very frustrating because the doctors and nurses didn't believe that she wasn't a mad old woman – they wouldn't believe that she coped by herself at home. I am sure it wasn't helped by the fact that she didn't have her glasses and she couldn't see past the end of her bed.'

Doctors and nurses are very familiar with this kind of confusion because it is very common. They may, however, need the help of family and friends to understand what you were like before you became ill.

### Why does this happen?

In the first few days and weeks after your operation, your body is repairing itself, and the physical challenges associated with this process can cause you to become confused.

Some things which can lead to you becoming confused are listed below.

### Causes that can be treated

- ▶ Infections, such as chest, wound and urine infections.
- ▶ Poor pain control.
- ▶ Side effects of pain relief medicines and other medicines (which can then sometimes be changed for different ones).
- ▶ Dehydration.
- ▶ Low oxygen levels due to:
  - after effects of the anaesthetic
  - the effects of medicines on breathing, especially pain relief medicines
  - a chest infection
  - other lung problems.
- ▶ Inadequate nutrition.
- ▶ Prolonged constipation.
- ▶ Sleep disturbance.
- ▶ Not taking drugs that you were taking before the operation.
- ▶ Loss of vision and hearing sometimes simply due to lack of glasses or hearing aids.

### Other things that make confusion more likely

- ▶ Advanced age.
- ▶ Previous ill health.

- ▶ Previous poor memory, dementia, stroke or other brain disease such as Parkinson's disease.
- ▶ Previous poor mobility (you were unable to walk about easily).
- ▶ Previous high alcohol intake.
- ▶ Being disorientated due to the unfamiliar hospital environment (although support from nurses and relatives can help with this).

### How likely am I to become confused?

This kind of confusion is very common in elderly people. One author says that up to half of elderly patients having hip surgery become confused afterwards for a period of time.

The highly vulnerable person (for example, someone who already has dementia) may require only a minor trigger (for example, a hearing aid not working) to start an episode of confusion and altered behaviour.

If you have none of the risk factors listed above, then you are unlikely to become confused.

### Does the type of anaesthetic make a difference?

You can reduce your risk of becoming confused if you have a regional anaesthetic and stay awake for your operation. This does not remove the risk however, as the confusion can still occur during the recovery period, perhaps related to an infection or the use of strong pain relief medicines or any of the other causes given above.

Your anaesthetist will be able to tell you if your operation can be done with a regional anaesthetic and you can find out

more about alternatives to general anaesthetics in the booklet 'Anaesthesia Explained' which is on the Royal College of Anaesthetists website ([www.rcoa.ac.uk](http://www.rcoa.ac.uk)).

### How is it treated?

The good news is that the great majority of people who become confused make a full recovery.

*'The second time it wasn't so frightening because we knew what to expect. We said to the nurses: "Don't worry she'll be OK in a couple of weeks."'*

Firstly, if a physical reason is found, it will be treated (for example, antibiotics, oxygen, pain relieving medicines, nutrition and fluids, drugs to help with constipation etc).

Other than that, the simplest measures can be the most helpful. The support of family and friends is vital in tackling this problem.

- ▶ Frequent reorientation and reassurance are important for recovery. The involvement of family, friends and even pets can help to reassure you that you are safe.
- ▶ The use of familiar objects such as your own pillows and clothes helps.
- ▶ Clocks and calendars are useful to help keep track of time.
- ▶ Making sure that glasses and hearing aids are used is essential.
- ▶ For people who do not speak English, an interpreter should be used as much as possible.
- ▶ The room lighting should follow a day/night cycle. At night, the room should be quiet. This will help promote uninterrupted sleep.
- ▶ Normal eating and drinking should be encouraged. This may not be possible

immediately after an operation. Intravenous fluids (a drip) or intra-venous feeding can be used.

- ▶ Unnecessary bed rest should be avoided.

Despite these measures, it is occasionally necessary to give a sedative (calming) medicine to you if you are at risk of injuring yourself or someone else because of confusion. This can be done either by a tablet or injection.

### **How long does it take to recover?**

Most people recover within a few days. Occasionally it may take up to three months. If you have complications after the operation, the confusion may get worse again. Occasionally you may not recover fully. This may be because POCD has developed, which is described below.

### **Can I do anything to help with this problem?**

- ▶ Before the operation try and be as healthy as possible. Eat a good diet and take a sensible amount of exercise.
- ▶ Talk to your anaesthetist about alternatives to a general anaesthetic, but these do not guarantee you will not become confused.
- ▶ If your operation is not major, and you have someone at home to look after you, you may be able to go home on the same day. This reduces the risk of becoming confused.
- ▶ Make sure that you have any glasses or hearing aids with you and that spare batteries are available if needed.
- ▶ Ensure you take all your medications into hospital with you so that your doctors know what you are taking and so they are not stopped unnecessarily.
- ▶ If you drink a lot of alcohol you should take advice about how to cut down

safely. Your GP or practice nurse will be able to help you with this. You should also tell your doctors in hospital how much you drink.

- ▶ You may wish to warn your family and friends about the possibility of becoming confused, and tell them how they can help you.
- ▶ Motivation is important. When you are allowed out of bed, your nurses and physiotherapists will tell you how much you should try and do for yourself. You should aim to be increasingly independent.
- ▶ As you recover, you may feel upset and sad about what has happened to you and worry that you may never get back to normal. Remember that it is very common and most people make a good recovery.

### **Who can I talk to before my operation about the possibility of being confused afterwards?**

Your surgeon, anaesthetist and nurses will be able to discuss these issues with you before and after the operation. It can also help to talk to family and friends and involve them from the outset. They are important in helping you make a full recovery.

### **Who will be able to help me afterwards if this happens to me?**

There is a team of:

- ▶ doctors
- ▶ nurses
- ▶ physiotherapists (who help you exercise normally)
- ▶ occupational therapists (who give practical help to help you get back your independence in hospital and at home)
- ▶ social workers, who will work with you to help you return safely home.

As already stated, family and friends can also play a key role.

If you have been very confused, you may not be able to remember what happened to you while you were in hospital. You may wish to find out what happened to you, and to discuss your health in more detail. This can be done by coming to a clinic in the hospital. You should contact your surgeon to arrange this. Alternatively, your GP will be able to talk to you about your treatment and what happened to you.

### Post-Operative Cognitive Dysfunction (POCD)

POCD is detected in clinical trials by memory tests, mood assessments and tests of ability to manage the activities of daily living, such as shopping, doing a crossword or other mental tasks.

There are many difficulties in designing tests that can detect accurately the changes in people's ability to carry out all the many tasks of daily life. Some people score well in tests, but still find that they cannot return to their old job or complete the crossword as well as they used to.

Therefore it is difficult to say how often permanent POCD happens. Experts disagree on how valid tests are and how results should be analysed. Here is a summary of the best data that we have and this is described fully in the references below.<sup>1-4</sup>

- ▶ 1 in 5 patients over 60 has measurable POCD one week after major surgery (other than heart surgery). This is sometimes called 'early' POCD. It is not always severe and may not even be noticed except by close friends and family or by specific testing.
- ▶ The studies also suggest that 1 in 20 patients over 60 having major surgery (other than heart surgery) will still have this brain impairment three months later<sup>1</sup> ('late' POCD). However, this fact has been called into question due to some doubt about how test results were analysed.
- ▶ An article in the *British Medical Journal* in 2004 says that it is not clear how often POCD happens, or whether it happens at all for operations other than heart surgery.<sup>4</sup>
- ▶ After a major operation, the type of anaesthetic used does not seem to affect whether you might get 'late' POCD. However, there is less risk of 'early' POCD<sup>2</sup> with a regional anaesthetic (such as a spinal anaesthetic) than with a general anaesthetic.
- ▶ The cause of POCD is not understood.
- ▶ For heart surgery there is some evidence that POCD does happen and that it can be prolonged or permanent.

If you think that you may have POCD it is important that you visit your GP and talk about it. There may be things that can be done to help you.

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