

## INFORMATION FOR PATIENTS, CARERS AND RELATIVES

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# Becoming confused after an operation

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## Types of confusion

It is quite common for people to become confused after an operation and anaesthetic. Their memory may become worse, and their behaviour may change and be very different from their normal behaviour. This can be upsetting and distressing for you, your friends and your family. These changes are not the same as dementia however, and the confusion usually improves as you recover.

There are two types of confusion after surgery:

- **Delirium**

This tends to occur very soon after the operation. It has a number of causes that are usually treatable.

- **Post-operative (after surgery) cognitive dysfunction (POCD)**

This tends to develop later after an operation. The cause is unclear and the effects in a few people may be permanent.

Whilst neither of these conditions are the same as dementia, people who have dementia (or mild cognitive impairment) are at increased risk of developing both delirium and POCD.

## Post-operative delirium

Delirium is a state of confusion. It can happen during an illness as well as after an operation. After an operation the person usually wakes up behaving normally. The confusion appears during the first few days after the operation. The severity of symptoms varies and tends to fluctuate over the course of the day, being better in the mornings and worsening in the evening and at night. It can be frightening for the patient but also for the patient's relatives and friends.

### Typical symptoms of delirium:

- Loss of memory, e.g., not recognising family members, not knowing your own name or where you are.
- Agitation and restlessness, e.g., trying to climb out of bed, pulling out drips and tubes.
- Being quiet or withdrawn, including loss of interest in eating and drinking.
- Reversal of sleep patterns - wakeful overnight and sleepy during the day.
- Emotional changes such as aggression, anger, anxiety, tearfulness, and shouting.
- Paranoia - thinking staff or family members are trying to harm them.
- Seeing and hearing things that aren't really there (hallucinations).

## **What causes delirium?**

In the first few days and weeks after your operation, your body is repairing itself. The physical challenges associated with this process affect the way that the brain is working. Some specific causes, many of which can be effectively treated, are listed below:

- Infection, such as wound, urine, or chest infections.
- Inadequate pain relief and side-effects of other medication.
- Dehydration and poor nutrition.
- Low oxygen levels (can be due to the effects of anaesthetic, chest infection and underlying lung problems).
- Constipation.
- Sleep disturbance.
- Poor vision and hearing (not having glasses and hearing aids in hospital contribute to this).
- Pre-existing memory problems such as dementia or mild cognitive impairment.

## **Who is more likely to get delirium?**

Some people are more likely to develop delirium. This includes people with:

- Advanced age.
- High alcohol intake.
- Previous dementia or brain disorders, e.g., Parkinson's Disease.
- Depression.
- Poor vision or hearing.
- Poor mobility.
- Heart failure.
- A medical condition requiring surgery to be done as an emergency.

## **How common is post-operative delirium?**

The likelihood of developing post-operative delirium is influenced by many factors e.g., type of surgery (elective (scheduled in advance) versus emergency), and other medical conditions such as dementia or heart failure. The rate of delirium after elective hip or knee replacement, however, is about 17%. Rates of delirium after emergency surgery tend to be higher.

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

Yes. The risk of post-operative delirium can be reduced by using local or regional anaesthetics and staying awake during your operation. You can discuss the options with your anaesthetist before you have your surgery.

## **Does delirium improve?**

Most people who develop delirium will be treated for identified causes and improve greatly.

However, people who develop delirium are more likely to have a longer stay in hospital. Unfortunately, if the delirium is severe and prolonged, patients are more likely to be dependent (such as needing carers at home) when they leave hospital. Patients who have had an episode of delirium are also more likely to develop dementia in the future.

## **Post-operative cognitive dysfunction (POCD)**

### **What is POCD?**

People with POCD have trouble with higher mental tasks that people use day to day. For example, they may struggle to concentrate when reading or watching television, have difficulty remembering recent conversations or events, not be able to complete several tasks at once, have difficulty with problem-solving (such as learning to use a new gadget or completing a crossword), or making decisions about things.

Symptoms may develop early (within one week) or late (more than three months after surgery). The symptoms may be subtle initially but then families and carers may gradually notice that tasks which were easy before the operation become increasingly difficult to do. It can be frightening and may have an impact on the patient's confidence and independence.

### **What causes POCD?**

The cause of POCD is unclear. Problems with the blood vessels of the brain, reduced blood pressure during and after surgery, stress levels whilst in hospital, genetic susceptibility, and increased inflammation in the body and brain have all been suggested as causes.

Some medicines given in hospital seem to be more likely to be associated with POCD, but it is unclear whether these medicines actually cause POCD. The anaesthetic technique used does not appear to be an important cause of POCD. Regional anaesthesia (numbing a certain part of the body) may reduce the chance of getting delirium, but probably not POCD. The type of pain relief medicines used also does not seem to affect the chance of getting POCD.

### **Risk factors for developing POCD:**

- Major surgery, or patients who require more than one operation before they leave hospital.
- Being over 65 years of age.
- A long operating time.
- Serious infection or breathing difficulties after surgery.

### **Will it get better?**

Most people with POCD will improve, but approximately 10% of people have POCD three months post-operatively, but only 1% have it after one year. If cognitive problems persist, you should see your own doctor and they may refer you for formal memory testing.

## What can I do to reduce my risk of developing delirium or POCD?

If you have decided to have an operation, then you are accepting the risk that you may develop delirium or POCD, or both. The risk of both is low and in general should perhaps not put you off having important lifesaving or life-altering surgery.

Here are some things that you can do which may help prevent becoming confused, and may also help you deal with it if it happens to you:

- Before the operation, try and be as healthy as possible. Eat a good diet and take a sensible amount of exercise. It is a good idea to give up smoking, and to lose weight if you are overweight.
- Ask your anaesthetist if there are any alternatives to a general anaesthetic such as a spinal anaesthetic or a nerve block. These will not guarantee that you will not suffer from delirium, but they may help.
- Make sure that you have your glasses and hearing aids with you, and that spare batteries are available if needed.
- Make sure that you bring all your medications into hospital with you so that your doctors know what you are taking and so that these medications can be continued.
- 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.
- It can help if friends and family understand that you may become confused afterwards. Some ideas on how they can help are given below.
- If you enjoy reading, puzzles or crosswords bring some with you so that you are able to remain mentally active.
- Remain motivated to keep moving and work with the physiotherapists and nursing staff while you are in hospital.
- Bring ear plugs, eye masks or something that will help you sleep at night. Wards can be noisy at night.
- Bring in a familiar item from home, e.g., photographs of family members/spouse.

## What will the hospital do to help?

The team caring for you on the ward is trained to consider how to help people with all kinds of confusion. They will:

- Be keen to provide a regular routine, a visible clock and natural daylight.
- Try to look after glasses and hearing aids.
- Proactively screen for delirium (this will include screening questions in addition to blood tests and documenting other observations such as food and fluid intake).
- Treat infection.
- Manage constipation and urinary difficulties.
- Allow visiting where possible.

Relatives and carers of people with dementia can be given a '**carers passport**' that allows them to visit the patient with dementia outside of normal visiting hours.

Please ask a member of the ward staff for more information about this or talk to your doctor or nurse about it when you attend for your pre-operative assessment appointment.

Staff will also:

- Introduce themselves and explain their role.
- Encourage a regular routine and promote usual sleep patterns.
- Ensure that there is effective communication with family and carers.

### **What can my friends and family do to help if I become confused?**

Friends and family can help in a number of ways when a patient becomes confused after an operation:

- Bringing in familiar objects such as own clothes, blankets, photographs of family/friends/pets.
- Ensuring glasses and hearing aids (with working batteries) are with the patient in hospital.
- Gently reminding the patient of the day and time, and the reason why are in hospital.
- Speaking softly and using simple words or phrases.
- Trying not to argue with the patient if they become confused or aggressive.
- Speaking about family and friends that the patient knows.

If friends and family notice signs of confusion in the patient, they must inform staff on the ward as the friends and family members may be able to recognise more subtle changes than the medical and nursing team on the ward.

### **Who can help me after my operation?**

People with delirium are likely to stay in hospital longer than normal after an operation. When you are well enough to be at home, you may require extra help at home, usually for a fixed period of time. The ward team will help arrange support for you if it is needed. Some people may need to go to a convalescent home for a little while or stay with family or friends as the confusion resolves.

Please talk to staff on the ward if there are concerns about the discharge plans for the patient with confusion.

### **Further sources of information**

NHS Choices: [www.nhs.uk/conditions](http://www.nhs.uk/conditions)

Our website: [www.sfh-tr.nhs.uk](http://www.sfh-tr.nhs.uk)

### **Patient Experience Team (PET)**

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

**King's Mill Hospital:** 01623 672222

**Newark Hospital:** 01636 685692

**Email:** [sfh-tr.PET@nhs.net](mailto:sfh-tr.PET@nhs.net)

If you would like this information in an alternative format, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call the Patient Experience Team on 01623 672222 or email [sfh-tr.PET@nhs.net](mailto:sfh-tr.PET@nhs.net).

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