

Risks associated with your anaesthetic

Section 3: Shivering

At the end of your operation, you will be taken to the recovery room. Recovery room staff will be with you at all times and will continue to monitor your blood pressure, oxygen levels and pulse rate. Some people shiver during this period. This article gives you information about shivering after an anaesthetic and how it can be treated.

Shivering can cause a great deal of discomfort following an anaesthetic.¹ Although it can be extremely distressing, it is not usually dangerous and should stop within 20 to 30 minutes.

'It was incredibly frightening. I felt so cold, and I didn't know what to do or how to stop it. I thought something must be dreadfully wrong'

Shivering is an involuntary process, which may affect various different parts of your body. It can occur after a general anaesthetic and during or after a regional anaesthetic (an epidural or spinal).

What causes it?

Most shivering after an operation is due to a fall in your core (central) body temperature. This is called thermoregulatory shivering. Most drugs used to keep you asleep during your anaesthetic contribute to this fall by reducing your body's natural ability to regulate your own temperature. Parts of your body may also be exposed to a cool environment during your operation. This further contributes to heat loss.²

Shivering may also occur without a fall in core body temperature. This is called non thermoregulatory shivering. It can be due to anaesthetic drugs and gases, and is more likely if you have pain following your operation.³

What is done to prevent it?

Care is taken to keep you as warm as possible. Different things can help depending on what operation and anaesthetic you are having. This may include:

- ▶ heating and moisturising inhaled gases
- ▶ using heated blankets
- ▶ warming any intra-venous fluids or blood that you may receive.

How often does shivering happen?

Even using measures to prevent a fall in body temperature, shivering occurs in approximately 1 in 4 patients following a general anaesthetic.⁴ The risk of shivering following a regional anaesthetic may be slightly higher and may last longer than following a general anaesthetic.⁵ Young adults are more prone to shivering than any other age group.

What can be done if shivering occurs?

When you get to the recovery room your temperature will be measured. The nurses will use warming blankets and warm fluids to bring your temperature up to normal.

There are also a number of drugs which can be used to treat shivering, although it is usually considered best to wait until the shivering stops on its own. None of the drugs is 100% effective and all may have

side effects. The most effective drugs include pethidine, tramadol and magnesium sulphate.⁶ If you are in pain following your operation, treatment of your pain may also help to reduce your shivering.

Shivering will stop on its own and, although distressing, it is generally not dangerous. It does, however, increase your body's requirement for oxygen so you may be given additional oxygen via a mask.

A nurse will be with you at all times in the recovery room and he/she should reassure you about the shivering and also treat any pain that you may have.

If you have suffered from shivering following an anaesthetic it will not necessarily affect you having any future anaesthetics. Should you need another anaesthetic, the shivering may not happen again.

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The Royal College
of Anaesthetists

The Royal College of Anaesthetists January 2006

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