

Continued

## WHAT ELSE SHOULD I KNOW ABOUT ANAESTHETIC SAFETY?

Modern anaesthesia is extremely safe and the risk of even minor complication is very low. However, allergic reactions to the various drugs can occur and unexpected problems with breathing or the cardiovascular system can arise. Dr Coates, the Consultant Anaesthetist who works closely with Mr Hardy, will assess your physical state with reference to your history and examination, provide information about potential risks and answer your queries and address any concerns, no matter how apparently minor, during his pre-operative visit. It is important that you declare any known allergies or previous adverse reactions to anaesthesia or medication.

## ANALGESIA AT HOME

Rarely, when the surgical procedure has been extensive or prolonged, it is necessary to give strong pain killers by injection but most frequently tablets are sufficient. Take a painkiller such as paracetamol and an anti-inflammatory painkiller such as ibuprofen, which will reduce both pain and reduce swelling. Always follow the instructions supplied with this medication first or ask your pharmacist for advice if you have any other conditions or if you are taking any other medication

The Royal College of Anaesthetists provides useful and comprehensive patient information about all aspects of anaesthesia

<http://www.rcoa.ac.uk/>

If you have any other questions please do not hesitate to ask your Orthopaedic and Trauma surgeon. or Anaesthetist.



Further copies of this brochure can be found at:

[www.JohnHardy.co.uk](http://www.JohnHardy.co.uk)

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# TARGET CONTROLLED INTRAVENOUS ANAESTHESIA (TCIVA)

## INTRODUCTION

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Many operations are usually carried out under general anaesthesia as a day-case procedure. As a team Dr Coates, Consultant Anaesthetist and Mr Hardy, Consultant Orthopaedic and Trauma Surgeon offer an appropriate anaesthetic and good pain relief.

This is a combined “team” approach of both anaesthetist and surgeon who have developed the technique over many years. It is without recourse to gaseous anaesthetics and intubations, achieves the rapid return of clear-headed consciousness, low incidence of nausea, vomiting headache and no sore throat. This allows patients to mobilise immediately postoperatively and later under the guidance of the physiotherapist.

## CHOICE OF ANAESTHETIC

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Spinal anaesthesia, awake is not the most suitable choice for day-case surgery because of the prolonged numbness that precludes early mobilisation. Therefore, general anaesthesia is the standard and nowadays safest method of achieving anaesthesia. The operation is carried out reassuringly with a complete lack of consciousness. Our experience is that it is usually possible to achieve a very rapid, clear-headed recovery using a technique that uses only local anaesthesia and intravenous drugs without the need for any anaesthetic gases or breathing tubes.

## TOTAL INTRAVENOUS ANAESTHESIA

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The technique of total intravenous anaesthesia (TIVA) was developed into a practical reality in the 1980's when new drugs became available that allowed general

anaesthesia to be achieved safely without the need for the use of any anaesthetic gases. The very real benefit was a better recovery for the patient. The concept was further developed to allow a calculated target concentration of anaesthetic drugs, determined by the anaesthetist based on an individual patient's requirements and response, to be achieved by a computer-controlled pump seen below.



Dr Coates, working in the University of Bristol Department of Anaesthesia, has been intimately involved in the research into the application of TIVA and the introduction of the target-controlled technique (TCIVA) from its inception. He became the first president of the UK Society for Intravenous Anaesthesia (<http://www.sivauk.org/>) in 1997.

## THE ANAESTHETIC EXPERIENCE

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Dr Coates will visit you in your room before the operation and explain what is going to happen, answer any questions you may have, and obtain written consent for anaesthesia.

It is not usual to give you any sedative, premedication before going to the operating department. It is sometimes appropriate to administer some medication, for example an inhaler to an asthmatic, to treat co-existing conditions.

A nurse will accompany you to theatre. On arrival in the theatre suite, Dr Coates will insert a small intravenous tube (cannula) into a vein, usually in your hand. This is the least pleasant part of the operation. A sedative dose of drug, that creates a pleasant, mildly euphoric sensation, is given before you are wheeled through to the operating theatre.

Most patients have no recollection of anything that follows until they regain consciousness in the Recovery Room about 5 minutes after the surgery ends. A few remember being slid onto another bed but none recall anything at all about the operation itself.

Dr Coates will be constantly present throughout your operation. Before you gently drift into unconsciousness you are connected to the routine monitoring equipment that provides continuous information about your respiratory and cardiovascular state. A clear lightweight plastic mask is used to deliver oxygen to you throughout the anaesthetic. No anaesthetic gasses are necessary.

When you wake up you will be lying in your bed in the Recovery Room. Discomfort is usually minimal because local anaesthetic is introduced into the site of operation during the procedure. Because consciousness is regained smoothly and quickly it is exceptional for a patient to be unco-operative or confused. Nausea is also unusual, less than 5%. It is likely that you will be thirsty and you may take sips of cold water before returning to your room for a light meal and further refreshment. Before you leave the recovery room, Dr Coates will come to check that all is well and that, in particular, you are comfortable. He will be able to provide a brief report on your operation. This will be expanded when Mr Hardy sees you later when you are back in your room.