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## **Long-term Effects of Anaesthesia on Infants and Young Children Information for Parents**

Infants and small children who need operations or specialised investigations often need a general anaesthetic to ensure that they remain asleep and free of pain during their procedure. The anaesthetic drugs we use not only provide unconsciousness and pain relief, but also reduce the body's stress responses to surgery, which helps to speed recovery.

In the last few years, it has been shown that exposing very young animals to a variety of anaesthetic drugs can produce microscopic changes in specific parts of the brain and some studies have suggested that this may influence longer-term development. It is difficult to know how to interpret these experiments: the studies are not directly comparable to human infants having surgery and anaesthesia in the animal studies was often continued for much longer or at higher doses than used for routine surgery in children. Nevertheless, the medical community is taking this issue very seriously and paediatric anaesthetists around the world are actively involved in individual and joint efforts to try to determine what risk, if any, exposure to anaesthetic drugs has in young infants and children.

Serious complications related to anaesthesia are rare nowadays, even in the very young and the very sick. New technologies allow anaesthetists to continuously monitor and control the circulation, oxygen levels and function of the brain and other organs to maintain wellbeing during and after surgery.

Parents and caregivers should discuss the potential risks and benefits of any proposed surgery and procedures requiring anaesthesia with their child's healthcare professionals. Surgery and procedures requiring anaesthesia are only undertaken in newborn babies and infants when treatment or procedures cannot wait until later in life. Delaying or avoiding surgery may lead to adverse effects, and inadequate anaesthesia or pain relief can also result in significant complications. Given that exposure to general anaesthetics in early life has not been consistently linked to adverse changes from the clinical studies carried out so far, we do not recommend any changes to anaesthetic practice at this time.

You can find additional guidance and articles from the Association of Paediatric Anaesthetists website at:

<http://www.apagbi.org.uk/safety/safety-statements>

You may also want to discuss these issues with your child's anaesthetist before surgery. As the evidence unfolds we will update our guidance and we will continue to be available to respond to your questions.