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### **Does ketamine prevent chronic pain after surgery?**

Using a pain-reliever called ketamine during surgery and as part of pain relief afterwards could cut the risk of the patient developing chronic pain by up to half.

About one in 10 patients develop chronic pain following major surgery, and about one-third of them rate their pain as severe. “That’s a huge percentage of patients who could potentially be helped by this drug if our trials can prove it effective,” says Associate Professor Philip Peyton.

Professor Peyton, a specialist anaesthetist with the Austin Hospital and the University of Melbourne, spoke today at the annual scientific meeting of the Australian and New Zealand College of Anaesthetists in Auckland on reducing long-term post-surgical pain with ketamine. He said there was very strong evidence from a handful of small studies that ketamine was effective in this way.

He has just completed a pilot trial with 80 patients and hopes to soon begin a large international trial of around 5000 patients.

Professor Peyton says chronic pain after surgery is due to nerve damage – nerves being cut, or healing up all tangled afterwards – which produces particular kinds of pain that are described as tingling, burning or like electric shocks. “It’s particularly unpleasant and difficult to treat effectively because nerves have been cut and they don’t just magically heal,” he says.

“The transmission of pain along the nerves becomes self-sustaining even when the patient has recovered in other ways. The pain pathways continue to fire. This occurs in the spinal cord, to the brain, but the pain is felt elsewhere in the body. And if you’ve got it, it doesn’t go away. You are stuck with it for a long time.”

Patients who have chest or abdomen surgery, including breast operations, are particularly at risk of chronic pain afterwards.

Professor Peyton says it is believed ketamine works by blocking a particular kind of pain receptor that is central to the “spinal cord windup”, or sensitization, that leads to chronic pain.

### **Doubts about the safety of anaesthesia for infants explored**

Just under an hour of anaesthesia in young children does not appear to cause long-term neuro-developmental changes by the age of two. Professor Andrew Davidson

of the Royal Children's Hospital, Melbourne, conducted a study of 700 infants because of growing evidence that anaesthesia has negative effects on the developing brain of young animals. The children will be reassessed at age five.

**For more information or to request interviews, please contact ANZCA Media Manager Karen Kissane on +61 408 259 369, +64 9 307 5070 or [kkissane@anzca.edu.au](mailto:kkissane@anzca.edu.au). Follow us on Twitter [@ANZCA](https://twitter.com/ANZCA).**