

* Complications of general anaesthesia

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- *The risks of anesthesia are pretty low these days and experts say anesthesia is one of the safest areas of health care today.
- *But even so, anesthesia does still pose some risks.
- *Serious problems are more likely to occur if
 - you're having major or emergency surgery
 - you have any other illnesses
 - you smoke
 - you're overweight
 - you're elderly

Important complications of general anaesthesia:

- * Laryngeal damage.
- * Anaphylaxis to anaesthetic agents - figures such as 0.2% have been quoted.
- * Cardiovascular collapse.
- * Respiratory depression.
- * Aspiration pneumonitis - up to 4.5% frequency has been reported; higher in children.
- * Brain damage.
- * Delirium.
- * Nerve injury - 0.4% in general anaesthesia and 0.1% in regional anaesthesia.
- * Death.

* Delirium

Serious confusion and memory loss follows anesthesia.

Delirious patients may forget why they are in the hospital, have trouble responding to questions and speak in nonsensical sentences.

Symptoms usually resolves after a day or two.

However, anesthesia may have lingering side **effects on the brain**, even **years** after an operation.

- * An assistant professor of medicine at the University of Massachusetts tracked **the mental abilities of patients 60 years and older** for up to **one year after surgery**.
- * Based on tests of memory and attention, those who did not develop any delirium generally regained their presurgery mental capabilities within a month, whereas patients with postoperative delirium took between six months and a full year to recuperate.
- * Patients whose mental fog lasted more than three days after surgery had still not regained their full capabilities a year after the operation.

- * Researchers are uncertain about how anesthetic drugs might effect in a state of postoperative delirium.
- * Some experts have suggested that in elderly patients, the **brain** may also have a harder time refashioning the **connections between different regions** that could break down during anesthesia.
- * After surgery, experts recommend patients stay by encouraging family and friends to visit, getting them up and out of bed during the day, encouraging a good night's sleep, and discontinuing any medications that could further alter brain activity.
- * Although it is unclear exactly how these interventions help physical and mental activities stimulate **communication between nerve cells**, which could reestablish vital connections between brain regions.

* Peripheral nerve damage

Peripheral nerve injuries complicate both general and regional anaesthesia.

- * According to anesthesia-related nerve injury statistics, the most frequent sites of injury is
 - ulnar nerve (28%)
 - brachial plexus (20%)
 - lumbosacral nerve root (16%)
 - spinal cord (13%).

Ulnar nerve (85%) injuries are caused by general anesthesia,

Spinal cord (58%) and lumbosacral nerve root (92%) injuries were related with regional anesthesia.

- * It is the third most common anaesthesia-related complication.
- * The mechanism for most injuries, particularly those of the ulnar nerve, is not apparent now.