

Pre-surgery: How long do children need to fast before an operation?



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Usually an automatic reflex prevents stomach contents or acids from regurgitating, or coming back up the throat. However, general anaesthetics put this reflex out of action. This means that it is easier for stomach contents to come up the throat and get into the windpipe during an operation. If it is then breathed into the lungs, it can cause a life-threatening infection.

Because of this, children and adults are often asked not to eat or drink anything in the last few hours before an operation. But there are widely varying opinions on how long this fast should be. Between four and eight hours is a common fasting period. This can be a very long time for children.

In order to find out how long children need to fast before surgery, researchers from the Cochrane Collaboration, an international network of researchers, looked for trials on this topic. They were specifically interested in trials that involved children and teenagers up to the age of 19 who were to have a general anaesthetic. They found 23 trials altogether and did an analysis of the combined results. Some of the children in the trials still had something to drink a short time before the operation, and some had some light food to eat.

These trials showed that children who had water or apple juice up to two hours before the operation did not have more contents or acids in their stomachs than those children who fasted longer. That suggests that those children were not at increased risk of regurgitating than the other children.

The parents and children were also asked how much of a burden the time without food and drink was for the children. Those who only had to fast for two hours before the operation felt better and were more patient than children who fasted longer.

In March 2009 we looked for the latest research in this area to update this article. We did not find any trials that contradict the information given here.

Glossary

Cochrane Collaboration

The Cochrane Collaboration is an international network of thousands of researchers and others. They work together in teams called Cochrane Review Groups to answer questions about health care by doing systematic reviews of evidence. To achieve this, the members of the Collaboration have developed systems and methods for systematically finding and analysing the results of trials of health care interventions. The goal of the Cochrane Collaboration is to help patients, health care practitioners and others make more informed decisions about health care. You can read more about the Cochrane Collaboration at their website.

infection

In medicine, we speak of an infection when a person has caught a germ (an infectious agent). This germ can be a bacterium, a virus, a fungus or a worm. The germ multiplies and then either spreads throughout the body or only attacks one particular organ. As long as there are no signs of a disease, this is called an asymptomatic infection. When the body shows a reaction to the germ in the form of symptoms, this is called a symptomatic infection (an infectious disease). The period between the moment the germs enter the body and the moment the first symptoms of the disease appear, is called the incubation period. It may last a few hours or days, or even many years. An infection does not necessarily have to lead to the onset of a disease.

Sources

Brady M, Kinn S, O'Rourke K, Randhawa N, Stuart P. Preoperative fasting for preventing perioperative complications in children. *Cochrane Database of Systematic Reviews* 2005, Issue 2. [Cochrane summary (URL: <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD005285/frame.html>)]

The German Institute for Quality and Efficiency in Health Care (IQWiG)

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You can find a list of the evidence and other scientific literature on which this information is based at **www.informedhealthonline.org**

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