

## Doctors save children's lives with 3-D printed 'airway splint'

Doctors at the University of Michigan have created the first 3-D printed device that can grow with an infant and disintegrate inside the body when no longer needed.

The new medical implant is called an airway splint. It's designed to help babies who suffer from a life-threatening condition called tracheobronchomalacia that causes tiny airways near the lungs to collapse.

Three children between the ages of 3 months and 16 months participated in a pilot trial of the device, [described](#) Wednesday in the journal Science Translational Medicine. Prior to the surgery they had spent much of their lives in intensive care, where they needed to be on ventilators full-time to prevent death.

But after surgeons inserted the small white device around their narrow airways about as thick as a piece of pencil lead, all three showed rapid recovery.

The medical team can also use 3-D printing to produce a physical model of the patient's trachea and bronchi, which allows surgeons to practice the insertion operation before actually operating on a child.

The process is both efficient and cost effective, the research team said. Each device can be printed in just a few hours and costs about \$10 to produce.

Children do eventually grow out of tracheobronchomalacia. As they grow the cartilage around their airways becomes stronger, preventing further collapse.

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [3-D printed medical device grows with kids, saves their lives](#)**