

# Pediatric Tracheal Stents

## Background

Children's Minnesota wanted to create a percutaneous, removable airway stent for pediatric patients, 0-2 years of age

## Challenge

- Conventional layer-by-layer approaches result in parts with ridges that cause stents to clog
- Alternative approaches couldn't print 2 mm wall thickness – “the parts crumble”

## Solution

*“Carbon's silicone material offers smooth finish with the durability to withstand dynamic action of the airway.”*

- Dr. Robroy MacIver, Congenital Heart Surgeon



DIFFERENT SIZES OF 3D PRINTED AIRWAY STENTS,  
PRODUCED USING CARBON PRINTERS AND SIL 30