

Hydrogel Coated Nasal Cannula

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Technology description

The Technology:

Two of the main challenges in nasal-based respiratory therapy are providing a soft contact with the nasal cavity and creating a seal between the cannula and the nasal cavity. Long term users often complain of dry or bleeding nasal cavities. This irritation can in turn lead to infection. In pediatric and geriatric patients, there is a need for a nasal cannula that can be worn for extended periods of time without discomfort. Researchers at The University of Tennessee have developed a unique nasal cannula with a soft gel infused onto the prongs. This creates a seal that helps provide a constant flow of oxygen and increases patient comfort. Unlike gels and lotions applied to the nasal cavity itself, this coating is directly bonded to the nasal cannula prongs and provides a stable, comfortable surface. Additionally, as there is a seal between the device and the nasal cavity, a more constant flow rate of oxygen can be administered and monitored.

The airway device market is predicted to have a CAGR of 8.7% from 2011 through 2016, with anticipated yearly revenue of nearly \$4.5 billion by 2016. This technology will be of particular utility worldwide to long term cannula users, including neonates, geriatric users, and patients with chronic lung diseases such as COPD.

Application area

- Neonatal and long-term nasal cannula users

Advantages

- Increased comfort
- Creates a better nasal seal for oxygen flow
- No harsh chemicals or solvents used in the manufacturing process

Institution

[University of Tennessee](#)

Inventors

Christopher Stephens

Former - UTGSM@disclosure

Institute of Biomedical Engineering

Vichien Lorch

Professor

Neonatology

Mark Gaylord

Professor/Program Director

Neonatology

Ryan Hammonds

Graduate Student

Material Science & Engineering

联系我们



叶先生

电话 : 021-65679356

手机 : 13414935137

邮箱 : yeyingsheng@zf-ym.com