

CASE STUDY

**COMFORT<sup>®</sup>**  
**AIR N<sub>2</sub> MD**  
**X**



 **Cooper**  
University Hospital

# A Case Study on Elastomeric Respirators For Healthcare Workers



**DENTEC<sup>®</sup>**  
SAFETY SPECIALISTS



# Cooper Health University Hospital Trials Elastomeric Respirators With Source Control to Protect Against COVID.

## The Background

Cooper University Hospital participated in the US National Stockpile project to trial reusable elastomeric respirators and selected the Dentec Safety Comfort-Air®NxMD Respirator and will be converting 8,800 staff to be fit-tested.

## Cooper Combating COVID-19

Since March 12, 2020  
**132,507** Patients tested  
positive and **4,355**  
hospitalizations.



## Cooper's Mission: To serve, to heal, to educate.

Cooper's allotment was due to a request from State and Federal folks to respond to a NIOSH/CDC RFP regarding Hospital use of EHMR's. Part of that participation provided successful applicants with acquiring product, that being one of the NIOSH approved EHMR's that provide source protection. Upon review of available choices, Cooper Health chose the Comfort-Air®NxMD Respirator and seek to move to it exclusively.

## Obstacles

1

### No Source Control.

COVID is an infectious disease risk. When Cooper tried to source other respirator vendors no one else considered that the healthcare worker could be infected and at risk.

2

### Supply Chain Issues.

Like most hospitals Cooper was facing supply chain disruptions for critical PPE during the peak of COVID.

3

### Overcoming misconceptions

on the comfort and audibility of elastomeric respirators vs. disposables.

[www.dentecsafety.com](http://www.dentecsafety.com)



# Key Findings

Cooper University Health Care is the leading academic health system in South Jersey and provides access to primary, specialty, tertiary, and urgent care, all within one complete health system.

**8500+**  
Employees

**800+**  
Physicians practicing  
in more than 75  
specialties

Hospitals throughout the region send the most complex and critically ill and injured to Cooper for treatment by our highly skilled experts.

1

**Source Control.** Prior to implementing the Comfort-Air®NxMD, educating and policing staff on the importance of source control was a challenge. Dentec's solution (an elastomeric N95 respirator **WITHOUT** an exhalation valve), overcame that.

2

**No issues with communication** when wearing the respirator. In fact it was more clear than using a competitive product with a speech diaphragm.

3

**MADE IN AMERICA!** Dentec's elastomeric respirators eliminate supply chain issues.

4

**Easy to clean.** The ease of maintenance of the source control on the Comfort-Air®NxMD was key. Compared to other elastomeric masks which are difficult to clean and leads to the worry of contamination thus needing to be replaced.

## The Results

85% of the staff stated that the Comfort-Air®NxMD Respirator is the most comfortable mask they have worn including disposable respirators. They did not have any issues fit testing the team and in fact were able to fit test one individual whom was never able to get a proper fit and seal before.

Comfort-Air®NxMD Respirators

# Assessment and Evaluation of

## Comfort-Air®NxMD Elastomeric Respirators









### Dr. Michael A. Kirchoff's Feedback

#### *"The Comfort-Air®NxMD Checks Every Box!"*

"Initially, we didn't have good testing for COVID and asymptomatic spreaders. We tried to do source control in house to keep staff and patients safe, but other respirators with exhalation valves put staff and patients at risk. We constantly had to police, educate people. We were also facing supply chain disruptions and saw the emerging crisis with PPE shortages. I wanted to set up a response to address the question *'What are we going to do when we run out of N95's?'* Dentec Safety rode in and their Comfort-Air®NxMD Solution over came all that. We believe there is a strong argument to keep our PPE supply American based.

Dentec's respirator gives more options and choice to our staff and it's important to have variety. Dentec was collaborative and worked with us to provide a solution and educational tools to support our roll-out campaign. Dentec's willingness to work out "Instructions for Use" and address compliance issues relevant to hospital settings made it easier from a Health & Safety point of view and increase compliance with end users."

• -Dr. Michal Kirchoff, MD, Emergency Medicine Physician

- How comfortable do you find the Comfort-Air®NxMD Respirator compared to other respirators? 
- How would you rate the breathability of the Comfort-Air®NxMD compared to other respirators you have worn? 
- How would you rate the audibility of the Comfort-Air®NxMD? 
- Ease of cleaning and maintenance? 
- How would you rate the value of the product for the cost? 
- How likely are you to recommend the Comfort-Air®NxMD to other Healthcare settings? 

# Conclusion

Cooper Health initially rolled out the Comfort-Air@NxMD respirator in a classroom setting. According to Dr. Kirchoff, this allowed staff to build confidence in the respirator and overcome any resistance or assumptions that switching from a disposable to Dentec's elastomeric respirator would be hot and/ or uncomfortable. Staff found it was much cooler and easier to breathe, and most importantly better protection.

Providing staff talking points about

the Comfort-Air@NxMD Respirator early in the adoption process when interacting with patients proved important. Patients appreciate the context and that Doctors and staff take the time to explain the safety benefits of elastomeric respirators.

Cooper Health and Dr. Kirchoff continue to advocate for elastomeric respirators like the Comfort-Air@NxMD to be a part of America's critical supply needs and future PPE preparedness.

- ✓ Source control.
- ✓ Ease of maintenance and cleaning for reuse.
- ✓ Cooler and easier to breathe compared to disposables.
- ✓ An educational vehicle to remind and encourage staff to take a bio break (drink, eat, re-set) away from patient, remove mask and wipe away any condensation.
- ✓ No fit testing issues. Fit's a large variety of face shapes.
- ✓ Safer seal and better protection.
- ✓ Eliminates critical PPE supply chain issues.
- ✓ Sustainable and better for the environment.

