AeroClear® AEROSOL EVACUATOR

The best first line of defense in PPE is removing aerosols at the source within the nasal cavity rather than allow them to escape into the room.

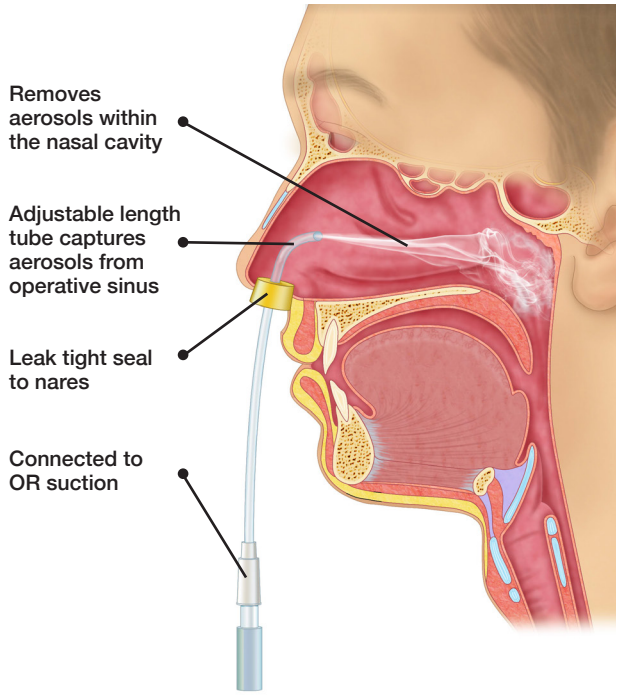
AeroClear® is the world's first and only Intranasal Negative Pressure technology for FESS surgeries. *AeroClear's patent pending design creates a negative pressure environment in the nasal cavity to capture aerosols and droplets within the nasal cavity during procedures, thereby minimizing chances of surgeons and staff being subjected to a high viral load.*

AeroClear® is an important addition to PPE. *AeroClear® is the first line of defense against harmful viral and bacterial laden aerosols generated during sinonasal procedures.*

Safe. Simple. Effective. Removes surgically generated aerosols and smoke ≥0.3 µm with 99.8% efficiency.[1]

AeroClear®. Designed with surgeons and OR staff in mind.

- **99.8% efficiency on aerosols ≥ 0.3 µm1**
- Actively suctions, evacuates and removes aerosols and droplets within the nasal cavity to protect surgeons and staff
- Provides clear surgical field of view
- Compact. Allows unobstructed access to the operative nasal cavity
- Works with the existing suction system in the OR
- Easy-to-use
- Cost effective



ORDERING INFORMATION

Part Number:	Description:	How Supplied:
9770013	AeroClear® aerosol evacuator	**AeroClear® aerosol evacuator is packaged with ten (10) sterile, single use units per box.** One (1) sterile unit contains one (1) AeroClear® aerosol evacuator. AeroClear® is terminally sterilized by gamma irradiation.

CAUTION: **Federal (U.S) law restricts this device to sale by or on the order of a physician.** For detailed information regarding indications for use, warnings and precautions, see Instructions for Use (IFU).

To place an order or for more information on AeroClear® or our other medical technologies, please contact a sales representative by calling our toll free number 866-612-2568

Hemostasis
www.hemostasisllc.com
5000 Township Parkway
St. Paul, MN 55110
Tel 866-612-2568

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The challenge with aerosols generated during surgical procedures

High-risk aerosol generating procedures (AGP) in sinus surgery include drills, electrocauterization, lasers, RF and harmonic scalpels. These generate aerosols and droplets 0.1-10 µm in size with the vast majority being in the <1 µm range.[1,2] Viruses are typically in the 0.1 µm size range (SARS-CoV-19 is 0.06-0.14 µm).[3] These are viable in surgically generated aerosols and smoke, although they are predominantly transmitted attached to larger aerosols[4]. The SARS-CoV-2 can remain viable in aerosols for at least 3 hours.[5] Smaller aerosols are considered to be the most harmful in that they can penetrate surgical masks and travel into the respiratory tract and alveoli.[2]

Surgical masks provide a barrier of protection against large droplets; however, aerosols are less effectively filtered. Surgical masks are effective on 3+ µm particles but in practice have efficiencies of only 4 – 50% on sub-micron aerosols due to fit issues.[6] While N95 masks are rated at 95% efficient at ≥0.3 µm they may nevertheless be <70% efficient due to fit and lack of sealing issues.[7] Taking an N95 fit test can take 20-30 minutes per person[8] which is time consuming for surgeons and staff. Re-use of N95 masks due to limited supply pose obvious risks. Powered air purifying respirators (PAPR) are effective with 99.97% efficiencies at ≥0.3 µm. While necessary for critical cases, challenges with using PAPRs include noise, cumbersome to wear, limited availability in some facilities, require cleaning and maintenance, and expense.[8]

AeroClear® eliminates the root cause problem of aerosols at the source

AeroClear® changes the paradigm of PPE. Rather than the risk of relying on surgical masks or respirators to try to capture generated aerosols after they escape into the surgical environment, AeroClear's patent pending design creates a negative pressure environment in the nasal cavity to capture aerosols and droplets within the nasal cavity during procedures, thereby minimizing chances of surgeons and staff being subjected to a high viral load. This makes the entire PPE process significantly more efficient.

Eliminating the problem at the source is the best first defense in PPE. AeroClear® removes aerosols and droplets ≥0.3 µm at 99.8% efficiency. This level of efficiency and ease of use makes AeroClear® possibly the most important PPE for surgeons, staff and facilities.

References

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4. Howard B. High-Risk Aerosol-Generating Procedures in COVID-19: Respiratory Protective Equipment and Considerations. *Otolaryngol Head Surg.* 2020; DOI: 10.1177/0194599820927335
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