

# COVID-19 Masks 101

## Surgical N95+ Respirator



- Classified as N95, N99, N100 which filters at least 95%, 99%, or 99.97% of non-oil-based airborne particles respectively
- Medical Device Class 1, requires an MDEL
- Fluid Resistant in accordance to ASTM F1862
- FDA clearance for its arterial to high velocity (at 120mmHg – 160mmHg) fluid resistance – approved for use in a surgical setting
- NIOSH approval is required
- Has the highest protection for a half face medical mask respirator
- Reduces the risk of inhaling hazardous airborne particles and aerosols
- Usually indicated for airborne diseases such as Influenza A
- Tight fitting seal required for effectiveness
- Requires fit testing every 2-3 years or whenever there is facial weight or structural changes to ensure optimal protection
- CDC provides a list of **Surgical N95+ models** for product distinction and identification
- Sample codes (HealthPRO Contract): 3M1860, 3M1870, KC46728

## N95+ Respirator



- Classified as N95, N99, N100 which filters at least 95%, 99%, or 99.97% of non-oil-based airborne particles respectively
- Medical Device Class 1, requires an MDEL
- NIOSH approval is required and approved models are listed on the **CDC website**
- Has the highest protection for a half face medical mask respirator
- Reduces the risk of inhaling hazardous airborne particles and aerosols
- Standard N95+ may protect against fluid splash or spray but does not require FDA clearance
- Usually indicated for airborne diseases such as Influenza A
- Tight fitting seal required for effectiveness
- Requires fit testing every 2-3 years or whenever there is facial weight or structural changes to ensure optimal protection

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## KN95 Mask



- China’s mask, which filters at least 95% of non-oil-based airborne particles
- Medical Device Class 1, requires an MDEL
- China GB2626-2006 testing and approval is required
- GB2626-2006 KN95 is similar to NIOSH N95 based on the performance requirements stated in both standards
- Only a KN95 respirator that has been tested and approved for its compliance to GB2626-2006 can be considered equivalent to the NIOSH N95
- Medical Device Directorate (Health Canada) has indicated that the KN95 is accepted and meets NIOSH standards. They do, however, recommend caution with the **earloops** for fit testing
- **Government of Canada** lists KN95 as an alternative to N95

\*\*A number of HealthPRO members have indicated that this mask will only be considered as a suitable alternative to a procedure mask as the mask does not form a secure seal around the nose and mouth

## Surgical Mask



- Medical Device Class 1, requires MDEL
- Prevents the transfer of microorganisms, body fluids and particulate material
- Typically in used an operating room setting
- Has **ties** to adjust fit and secure over surgeon cap
- Tested to comply with ASTM standard of protection regarding Fluid Resistance, Filtration Efficiency, Breathability and Flame Spread
- Classified into ASTM levels according to the protection it provides (Some manufacturers base their classification solely on **fluid resistance** while maintaining a standard level of protection for Filtration Efficiency, Breathability and Flame Spread)
- **Level 1** - Venous blood/low splash fluid protection (80mmHg)
- **Level 2** - Arterial blood /moderate splash fluid protection (120mmHg)
- **Level 3** - High velocity fluid splash protection (160mmHg)

\*\*Each member is encouraged to make the decision that best meets their individual needs.

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## Procedural Masks



- Medical Device Class 1, requires MDEL
- Prevents the transfer of microorganisms, body fluids and particulate material
- Typically used all around the hospital during minor procedures and for general protection
- Worn by infected patients to prevent the spread of vapour when coughing or sneezing
- Has **earloops** and fit is not adjustable
- Procedural Masks are also made to comply to ASTM standards just like Surgical masks
- Most procedural masks are usually level 1. Some suppliers have level 2 & 3
- Some manufacturers do not differentiate between Procedural and Surgical masks

## Utility Mask



- Not medical grade
- Provides physical barrier only
- Used mostly for odour protection
- Not compliant with ASTM standards
- No fluid barrier or protection

Please note that mask colour or brand does not affect its effectiveness if it is fit tested (in case of a respirator), sized appropriately, in compliance with regulations and tested to all necessary standards.

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