وزارة الصحة
Ministry of Health

رؤية VISION 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

RPP
Respiratory Protection Program

Prevention of Respiratory Hazards Through Respiratory Protection Equipment (RPE)

2022

Contents

Availability of RPE Including Face Mask, Respirator and PAPR machines

❑ Proper Selection and Use of Respiratory Protection Devices :

- Respiratory protection devices such as masks, respirators o powered air-purifying respirators are examples of personal protective equipment used to protect the wearer and others from acquiring infections.
- It is important to recognize proper selection and understand the differences between various types of these equipment's.

Medical / Surgical Face Mask

- Face masks are not to be shared and may be labelled as surgical, isolation, dental, or medical procedure masks.

- If surgical/medical mask properly are worn, will help block large-particle droplets, splashes, sprays, or splatter that may contain germs (viruses and bacteria), keeping them from reaching the wearer's mouth and nose. It also helps reduce exposure of wearer saliva and respiratory secretions to others

Face masks are not intended to be used more than once.

If the mask is damaged, wet, or soiled, or breathing through the mask becomes difficult, it should be removed, discarded safely, and be replaced with a new one; hand hygiene should be practiced accordingly.

Medical/Surgical face mask is considered to be contaminated once it has been used and should be discarded immediately

HOW TO WEAR A MEDICAL MASK SAFELY

who.int/epi-win

Do's


Wash your hands before touching the mask


Inspect the mask for tears or holes


Find the top side, where the metal piece or stiff edge is


Ensure the colored-side faces outwards


Place the metal piece or stiff edge over your nose


Cover your mouth, nose, and chin


Adjust the mask to your face without leaving gaps on the sides


Avoid touching the mask


Remove the mask from behind the ears or head


Keep the mask away from you and surfaces while removing it


Discard the mask immediately after use preferably into a closed bin


Wash your hands after discarding the mask

Don'ts


Do not Use a ripped or damp mask


Do not wear the mask only over mouth or nose


Do not wear a loose mask


Do not touch the front of the mask


Do not remove the mask to talk to someone or do other things that would require touching the mask


Do not leave your used mask within the reach of others

Do not re-use the mask

Remember that masks alone cannot protect you from COVID-19. Maintain at least 1 metre distance from others and wash your hands frequently and thoroughly, even while wearing a mask.

EPI·WiN World Health Organization

Different Protection levels / Types of the surgical/medical mask

Level 1/Type I:

For general purpose medical procedures, where the wearer is not at risk of blood or body fluid splash or to protect staff and the patient from droplet exposure to microorganisms (e.g., patient with upper respiratory tract infection visits clinic).

Level 2/Type II

For use in emergency departments, dentistry, changing dressings on minor wounds, or healing wounds where minimal blood droplet exposure may possibly occur (e.g., endoscopy procedures).

Level 3/Type III

They are used for all surgical procedures, major trauma first aid, or in any area where the health care worker is at risk of blood or body fluid splash (e.g., orthopaedic, cardiovascular procedures).

Respirator Mask

A respirator is a respiratory protective device designed to achieve a very close facial fit and efficient filtration of airborne particles.

Surgical Respirator

- A surgical respirator (also referred to as a medical respirator) is recommended only for use by healthcare workers (HCWs) who need protection from both airborne and fluid hazards (e.g., splashes, sprays, droplets).
- These respirators are not used or needed outside of healthcare settings.
- Minimum requirements for (Fluid resistant respirator) surgical respirators are NIOSH approved (42 CFR Part 84) and FDA cleared as a surgical N95 respirator, EN 149 -2001 as FFP2 and EN 14683 standard.

Differences Between a Medical/Surgical Mask and Respirator

Item	Surgical Mask	Respirator
Intended Use and Purpose	Fluid is resistant and protects the wearer against large droplets, splashes, or bodily or other hazardous fluids sprays. Protects the patient from the wearer's respiratory emissions.	Reduces HCW's exposure to particles, including small particle aerosols and large droplets (only non-oil aerosols).
Use	As a part of PPE used during care of the patient under droplet isolation precautions, surgical procedures, or as source control	As a part of PPE used during care of the patient under airborne isolation precautions

Differences Between a Medical/Surgical Mask and Respirator

Item	Surgical Mask	Respirator
Fit	It fits loosely, leaving gaps between the mask and your face. Does not require fit testing or user seal checks.	They are designed to fit tightly, creating a seal between your face and the respirator. It is Requires fit testing and user seal checks.
Testing	Tested for Particle Filtration Efficiency (PFE) and Bacterial Filtration Efficiency (BFE), plus fluid resistance, differential pressure, and flammability.	Tested for Particle Filtration Efficiency (PFE) and Bacterial Filtration Efficiency (BFE), plus fluid resistance, differential pressure, and flammability

Respirator Fit Testing

Frequency of Fit Testing:

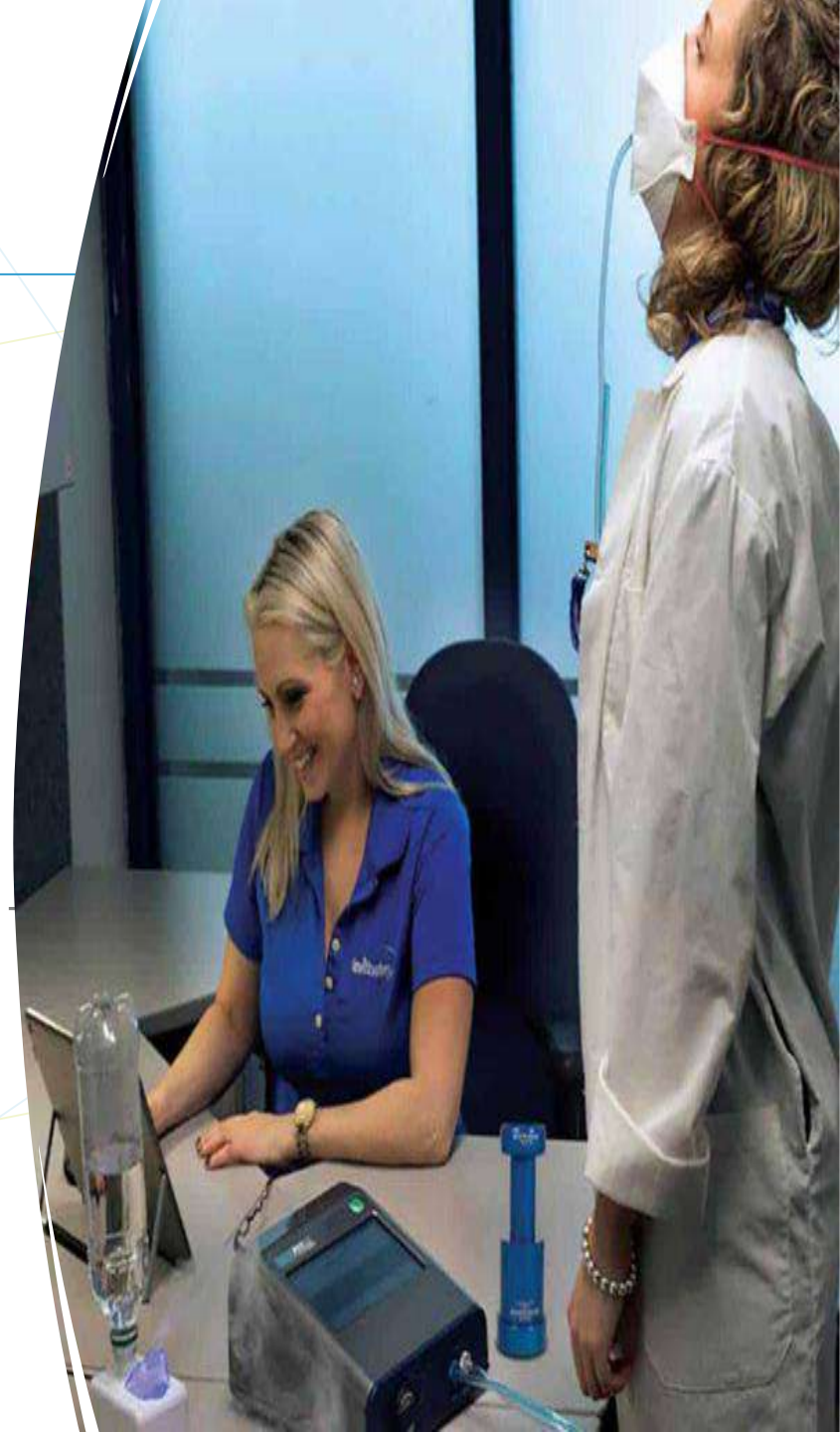
- Fit testing must be performed before using a respirator and must be repeated every year.
- Fit testing must be conducted when there are changes of respirator or a facial change; [examples of conditions that would require additional fit testing of an employee include but are not limited to; weight loss, cosmetic surgery, facial scarring, the installation of dentures, or absence of dentures that the individual wears typically].

Types of Fit Test

Qualitative fit testing is a pass/fail test that uses a sense of taste, smell, or reaction to an irritant to detect leakage into the respirator face piece.

Types of Fit Test

Quantitative fit testing uses a machine to measure the actual amount of leakage into the face piece. It does not rely on a sense of taste, smell, or irritation to detect leakage, and it produces a numerical result called (Fit Factor) and the fit factor of at least 100 is required for half-mask respirators.



Powered Air Purifying Respirator (PAPR)

PAPR is equipment that protects the user by filtering out contaminants in the air and using a battery-operated blower to provide clean air through a hood or a helmet. PAPRs equipped with high-efficiency particulate air (HEPA) filters provide 99.97% particulate filtration efficiency.

Uses of PAPR:

- PAPR proper collection and disassembly
- PAPR after use cleaning and disinfection
- PAPR HEPA filter change
- PAPR battery replacement
- PAPR training and education

Thank You