

Virtual PowerPoint Education Session: **Particulate Filter Respirators (PFR)** **(e.g. P2/N95 or equivalent)**

Developed in collaboration with Office for Ageing Well
and COVID Operations Infection Control Service

November 2021

Acknowledgement of Country

'I begin today by acknowledging the Traditional Custodians of the land on which we meet today, and pay my respects to their Elders past and present. I extend that respect to Aboriginal and Torres Strait Islander peoples here today.'



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of South Australia**



Housekeeping

- ❖ Welcome and introduction
- ❖ Please mute your microphone during the presentation
- ❖ There will be time for questions at the end of the presentation



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- ❖ SA Health COVID Operations Infection Control Service
- ❖ SA Health Office for Ageing Well
- ❖ SA Health Workforce Services / Corporate and System Support Services

Note: Information provided in this PowerPoint presentation is current as per the date of approval authority and may be subject to change in accordance with national guidelines.

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Disclaimer

- ❖ The content of this PowerPoint is provided for information purposes only and does not replace the requirement for facilities and healthcare providers to ensure their staff are provided with education and training in all aspects of the required Personal Protective Equipment as per relevant Australian Standards, Worker Health & Safety requirements and Infection Prevention and Control guidelines.
- ❖ **The PFR fit checking information provided in this PowerPoint does not replace the need for each facility to undertake a risk assessment and identify fit testing requirements for their staff.**
- ❖ RACFs must also undertake their own education and training needs analysis and implement education and training accordingly. Refer to national and state guidelines for further information.



Worker Health & Safety

Work health and safety legislation requires employees to be trained and supervised to carry out their work safely, including in the requirement and use of Personal Protective Equipment.



COVID-19 Transition Plan context for RACFs

- ❖ The Office for Ageing Well is consulting with the aged care sector on a number of changes which form part of the successful transition to 'living with COVID' strategy.
- ❖ This education session is part of an integrated set of guidance resources which are being developed for RACFs in relation to PFR.
- ❖ For further information about the transition plan and guidance resources refer to the Office for Ageing Well.



Target audience and Assumed levels of knowledge

- ❖ The target audience for this PowerPoint is healthcare workers working in Residential Aged Care Facilities (RACF).
- ❖ It is assumed that RACF healthcare workers have already received education and training in:
 - ❖ Infection Prevention and Control
 - ❖ Worker Health and Safety
 - ❖ Knowledge in how to select and use the correct Personal Protective Equipment (PPE), including how to put on (don) and take off (doff) PPE
 - ❖ PPE practices as part of their existing healthcare roles and work practices
 - ❖ COVID-19

Aims of this power point

- ❖ This power point aims to provide healthcare workers with a refresher and general introduction regarding PFRs.
- ❖ The power point will not cover how to put on (don) and take off (doff) all items of required PPE.
- ❖ For further information about the other items of required PPE, refer to the SA Health and Commonwealth Department of Health (DoH) web pages.
 - ❖ [SA Health](#)
 - ❖ [Department of Health](#)
 - ❖ [Australian Government Aged Care Quality and Safety Commission](#) webpage



Virtual PowerPoint session content

❖ Includes:

- ❖ Background and Australian Standards and National Guidelines regarding PFRs.
- ❖ What is PPE and why is it needed?
- ❖ Recommended PPE for COVID-19
- ❖ What is a Particulate Filter Respirator (PFR) e.g. P2/N95 or equivalent?
- ❖ What is PFR fit testing and fit checking?
- ❖ How to put on and take off a PFR.



Australian/New Zealand Standard AS/NZS 1715-2009

- > *“Before the respirator is issued, a qualitative or quantitative fit test as set out in the Clause 8.5 should be performed to assure the choice of a suitable respirator”*

Reference: Australian/New Zealand Standard
AS/NZS 1715-2009: Selection, use and maintenance of
respiratory protective equipment

Australian National Guidelines: PFR Fit Testing and Fit Checking

- ❖ Healthcare workers who wear a PFR (e.g. P2/N95 or equivalent) should first complete fit testing before the first use of a PFR, and also perform a fit check (check the seal) every time a PFR is put on.
- ❖ However, as per the current national guidelines, *in situations where fit testing has not yet been carried out, and a PFR is recommended for use, a fit-checked PFR is preferred to a surgical mask.*

Reference: Department of Health, Infection Control Expert Group (2021), [Guidance on the use of personal protective equipment \(PPE\) for health care workers in the context of COVID-19.](#)

Fit Test Program Administrator

The Australian/New Zealand Standard 1715:2009 requires that:

- ❖ An individual is assigned the responsibility to implement and coordinate the respiratory protection program
- ❖ Should be suitably trained with an understanding of the key principles of respiratory protection and an understanding of workplace hazards.
- ❖ To establish a respiratory protection program the standard recommends:
 - ❖ the administrator is an occupational health and safety professional.
 - ❖ In small companies, the program may be directed by the employer, foreperson, or other supervisory personnel.
- ❖ This will include:
 - ❖ A local fit test training program
 - ❖ Conducting train the trainer fit testing
 - ❖ Conduct annual competency assessment of fit test trainers

Reference: Australian/New Zealand Standard

AS/NZS 1715-2009: Selection, use and maintenance of respiratory protective equipment

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Australian National Guidelines: Healthcare Workers Access to PFRs

All healthcare workers providing direct patient care or working within the patient/client/resident zone for individuals with suspected or confirmed COVID-19 should have access to PFR supplies.

Reference: Department of Health, Infection Control Expert Group (2021), [*Guidance on the use of personal protective equipment \(PPE\) for health care workers in the context of COVID-19*](#).



What is PPE and why it is required?

- ❖ PPE stands for Personal Protective Equipment
- ❖ PPE can include gloves, gowns, aprons, respiratory protection (e.g. masks, PFR), face shields, eye protection.
- ❖ PPE should be worn according to Standard and Transmission based precautions and as per current national and state guidelines.
- ❖ PPE aims to prevent exposure of healthcare workers to infectious agents (e.g. COVID-19)

Recommended PPE for COVID-19

As per current National guidelines:

Following a risk assessment and when there is likely high-risk of SARS-CoV-2 transmission (virus which causes COVID-19):

Healthcare workers providing direct care or working within the patient/client/resident zone to individuals where assessment suggests a high-risk of transmission, should use P2/N95 respirators rather than face masks, along with other PPE required.

Note: PFR (e.g P2/N95 or equivalent)

What is a Particulate Filter Respirator (PFR)?



- ❖ A PFR is a close fitting respiratory protective device.
- ❖ PFRs come in various sizes and designs, including flat fold and cup style designs. Some like the Detmold PFR also require a “Fit Clip”.
- ❖ PFRs are worn by healthcare workers when implementing airborne precautions. They help prevent the inhalation of small infectious particles transmitted via the airborne route.
- ❖ PFRs should be used with other items of PPE as determined by local policy and risk assessment.
- ❖ PFRs must be used correctly, as incorrect use may increase a healthcare workers risk of exposure to infectious particles.



Reference: Department of Health, [*Guidance on the use of personal protective equipment \(PPE\) for health care workers in the context of COVID-19.*](#)

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Example Only: Detmold PFRs

Available Sizes for the D95 P2 Respirator with FitClip™

Designed to create the best fit, the D95 P2 Respirator comes in five different mask sizes. Please see the [D95 P2 Respirator with FitClip™ Instructions for Use](#) document below.



Extra Small D95 P2
Respirator - W887M



Small D95 P2
Respirator - W575M



Regular D95 P2
Respirator - W376M



Large D95 P2
Respirator - W486M



X-Large D95 P2
Respirator - W187M

What is fit testing and fit checking?

FIT TESTING	FIT CHECKING
<p>Objective method, using specialised equipment (Portacount™ or similar machine) OR a more subjective method involving a hood covering the head using saccharine or a bitter tasting substance.</p> <p>Usually fit testing is done by a fit tester, prior to the wearer using a PFR for the first time.</p>	<p>Subjective assessment performed by the wearer – every time a PFR is put on.</p> <p>Relies on the wearers interpretation of if they have achieved a seal of the PFR.</p>
<p>Determines the correct PFR, by brand, size and model for the wearer.</p>	<p>Helps to check the seal between the PFR and the face of the wearer, at the time of putting the PFR on.</p>
<p>Repeat fit testing may be required, including if the wearers facial features change significantly (weight changes, facial surgery etc).</p>	<p>Fit checking must be undertaken by the wearer every time a PFR is put on, to check that there are no air leakages and there is a seal between the face and PFR.</p>
<p>Adhere to PFR manufacturers instructions for use.</p>	

Factors that can affect the PFR seal

- ❖ Jewellery - there should be no jewellery worn that interferes with the PFR seal/straps.
- ❖ Facial hair – wearers should be clean shaven
- ❖ Facial shape – fit testing will identify the best fitting PFR to individual face shapes.
- ❖ Makeup – avoid excessive make up that may affect the seal.
- ❖ Long hair - hair should be off the face and well secured e.g. high pony tail or bun.

Putting on (Donning) a PFR

- ❖ Don PPE as per SA Health Sequence for donning (putting on) and doffing (taking off) Personal Protective Equipment
- ❖ You should use the PFR to which you have been fit tested to wear.
- ❖ Always perform hand hygiene before donning PPE including the PFR.
- ❖ PFR fit check must be completed every time a PFR is donned



How to perform a PFR Fit Check

- ❖ Select the correct PFR. Slightly bend the nose piece then place on the face, covering the mouth, nose and chin.
- ❖ Adjust the PFR straps on the back of the head – use fit clip if applicable.
- ❖ Shape PFR nose piece over bridge of nose to create a seal.
- ❖ Once the PFR is in position:
 - ❖ holding nose piece, perform jaw drop movement.
 - ❖ perform head movements, side to side/up and down
 - ❖ check seal by cupping hands above and below the PFR, check if air can be felt around the seal when breathing out and does the mask indent when breathing in?
- ❖ If seal not achieved, readjust the PFR, straps as per the above steps.
(Video available at the end of this presentation)

Example: Donning and fit checking of a Detmold PFR

Donning – correctly fitting the D95+ respirator mask



1. Prior to donning, practice hand hygiene.
2. Ensure you select the correct size D95+ mask that you have been fitted for (small, regular or large).
3. Move the Fitclip™ to the band on your preferred side for donning*



4. Open the mask, flattening the nose piece.
5. Lean chin into the mask and lift bands toward the crown of the head, securing onto the Fitclip™.
6. Adjust mask bands for a secure and comfortable fit.

Now, you must perform a fit check



Fit Check – Must be performed each time a D95+ respirator mask is donned.

1. Mould the nose wire securely. Pinch the nose piece (angled over the nostril) and drop the jaw gently to take the natural shape of the face.



2. Look left, right, up and down. Ensure there is NO movement in the mask at the nose piece.
3. Placing hands above the mask, deeply inhale and exhale feeling for escape of air.

Taking off (Doffing) a PFR

- ❖ To avoid the risk of self contamination during doffing, staff must be trained in how to remove PFRs safely in a controlled movement.
- ❖ Keep the front of the PFR away from the face and body of the wearer during doffing.
- ❖ Perform hand hygiene after doffing PPE/PFR.
- ❖ Refer to SA Health web pages for further information about donning (putting on) and doffing (taking off) PPE.
- ❖ Tip: Remember remove “**MASK LAST**”



Other PFR safety considerations.

- ❖ PFRs are single use only, they must not be reused and must be discarded after each use.
- ❖ PFRs may be worn for up to 4 hours during a single episode of care, but must be changed if damp, damaged or contaminated.
- ❖ PPE used in the provision of clinical care for COVID-19, should be disposed of in medical waste. Also refer to local waste management policies.
- ❖ For further information refer to the SA Health web pages.

How to don, fit check and doff a Detmold PFR (P2/N95)



Reference: <https://youtu.be/wUDEWHNV8y0>

Example: How to don, fit check and doff a cupped style PFR (P2/N95)



Reference: <https://www.youtube.com/watch?v=bSYCRAPHz0I>

Other resources: Detmold web pages

Product Specifications & Documents



D95 P2 Respirator with FitClip™ Instructions For Use

All sizes of D95 P2 Respirators with FitClip™

[VIEW DOCUMENT](#)



D95 P2 Respirator with FitClip™ Instructions For Use

Video - D95 P2 Respirator with FitClip™

[WATCH VIDEO](#)



D95 P2 Respirator with FitClip™ Product Technical Sheet

All sizes of D95 P2 Respirators with FitClip™

[VIEW DOCUMENT](#)

SA Health donning and doffing PPE poster

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Sequence for donning (putting on) and doffing (taking off)
Personal Protective Equipment


To reduce the risk of transmission of infectious agents, personal protective equipment (PPE) must be used appropriately. The following tables outline sequences and procedures for donning (putting on) and doffing (removing) PPE. This signage has been adapted by the [NHMRC Australian Guidelines for Prevention and Control of Infection in Healthcare](#).

Sequence for DONNING (putting on) PPE	Sequence for DOFFING (taking off) PPE
<p>Put on PPE before entering the person's room and before person contact.</p> <ol style="list-style-type: none"> 1. PERFORM HAND HYGIENE <ul style="list-style-type: none"> Wash hands or use an alcohol-based hand rub. 2. PUT ON GOWN <ul style="list-style-type: none"> Ensure the gown fully covers the torso and neck to knees, arms to end of wrist and wrap the around the back Fasten / tie at the back of neck and waist. 3. PUT ON MASK <i>surgical mask or particulate filtration respirator (PFR) i.e. P2/N95 or equivalent</i> Surgical mask <ul style="list-style-type: none"> Secure ties or ear loops Mould the nose piece into the mask Position surgical mask over nose, mouth then chin. PFR <ul style="list-style-type: none"> Position according to training and manufacturer's instructions Perform fit check. 4. PUT ON EYE PROTECTION <i>goggles, safety glasses or face shield</i> <ul style="list-style-type: none"> Place over face and eyes (and over prescription glasses if worn) Adjust to fit. Note - prescription glasses are not considered as eye protection 5. PUT ON GLOVES <ul style="list-style-type: none"> Fit gloves over the cuffs ensuring the gown sleeves are covered by the glove. 6. PPE CHECK <ul style="list-style-type: none"> Check all items of PPE are correctly in place Check integrity of PPE Note - Do not touch mask or eye protection again once PPE check has been completed <p>Consider using a staff member 'buddy' to assist with correct donning and doffing</p>	<p>Begin PPE removal at person's doorway or in anteroom. Eye protection and mask/respirator to be removed outside the room. Outside surfaces of PPE are considered to be contaminated.</p> <ol style="list-style-type: none"> 1. REMOVE GLOVES <ul style="list-style-type: none"> Grasp outside with opposite gloved hand, peel off Hold removed glove in the gloved hand Slide fingers of ungloved hand under the remaining glove at wrist Peel glove off over first glove Discard gloves in waste container. 2. PERFORM HAND HYGIENE <ul style="list-style-type: none"> Wash hands or use an alcohol-based hand rub. 3. REMOVE GOWN <ul style="list-style-type: none"> Undo fasteners or ties Pull away from neck and shoulders, touching inside of the gown only Turn gown inside out, away from clothing Fold or roll into a bundle and discard in waste container. Note - eye protection is to remain on at this stage 4. PERFORM HAND HYGIENE <ul style="list-style-type: none"> Wash hands or use an alcohol-based hand rub. Note - if practising PPE optimisation, stop doffing at stage 4. Check PPE for any integrity breaches or visible contamination 5. REMOVE EYE PROTECTION <i>goggles, safety glasses or face shield</i> <ul style="list-style-type: none"> Do not touch the front surfaces Handle by head band or side arms Place in designated container for reprocessing or in waste container. Note - remove outside the person's room 6. PERFORM HAND HYGIENE <ul style="list-style-type: none"> Wash hands or use an alcohol-based hand rub. 7. REMOVE MASK <i>surgical mask or particulate filtration respirator (PFR) i.e. P2/N95 or equivalent</i> <ul style="list-style-type: none"> Do not touch the front of the mask Grasp lower, then top ties or elastics and remove as per training and manufacture's guidelines to avoid self-contamination Discard in waste container. 8. PERFORM HAND HYGIENE <ul style="list-style-type: none"> Wash hands or use an alcohol-based hand rub immediately after removing all PPE.

For more information
 Infection Control Service
 Communicable Disease Control Branch
www.sahealth.sa.gov.au/COVID2019

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<https://www.sahealth.sa.gov.au/wps/wcm/connect/public-content/sa+health+internet/clinical+resources/clinical+programs+and+practice+guidelines/infectious+disease+control/coronavirus+disease+2019+information+for+health+professionals/infection+control+and+personal+protective+equipment+%28ppe%29+advice>

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Additional Resources and References

- ❖ [P2/N95 respirator \(flat or cupped\) donning and fit checking \(PDF 501KB\)](#) (SA Health fact sheet)
- ❖ [Donning \(putting on\) and doffing \(taking off\) the D95 respirator mask \(PDF 439KB\)](#) (SA Health fact sheet)
- ❖ [D95 Surgical Respirator by Detmold Medical FAQ \(PDF 960KB\)](#) (SA Health fact sheet)
- ❖ [COVID-19 Infection Control Training](#) (Australian Government modules)
- ❖ [Infection control education and training](#) (SA Health webpage)
- ❖ [PPE for HCWs, Residential aged care workers and non-healthcare workers](#) (SA Health training tools)
- ❖ [National guidance on the use of personal protective equipment \(PPE\) for health care workers in the context of COVID-19](#) (Australian Government guideline)
- ❖ [The use of face masks and respirators in the context of COVID-19](#) (Australian Government fact sheet)
- ❖ [Hand Hygiene – how to wash or sanitise your hands](#) (SA Health webpage)
- ❖ Email: officeforageingwell@sa.gov.au

Additional Resources and References – videos:

- ❖ [Personal Protective Equipment](#) (The University of Adelaide - Adelaide Health Simulation videos)
 - ❖ Nasopharyngeal & Oropharyngeal Swab Collection
 - ❖ Airborne Precautions (Donning and Doffing)
 - ❖ Contact Precautions (Donning and Doffing)
 - ❖ Droplet Precautions (Donning and Doffing)
 - ❖ Hand Sanitising
 - ❖ Hand Washing
- ❖ [How to handwash? With soap and water](#) (WHO video)
- ❖ [How to handrub? With alcohol-based formulation](#) (WHO video)
- ❖ [Cross-contamination while using disposable gloves](#) (SA Health video)
- ❖ [Donning and Fit Checking of Respirator](#) (NSW Clinical Excellence Commission video)
- ❖ [D95 Respirator](#) – (Detmold video)



COVID-19 Transition Plan context for RACFs Reminder:

- ❖ The Office for Ageing Well is consulting with the aged care sector on a number of changes which form part of the successful transition to 'living with COVID' strategy.
- ❖ This education session is part of an integrated set of guidance resources which are being developed for RACFs in relation to PFR.
- ❖ For further information about the transition plan and guidance resources refer to the Office for Ageing Well.

Thank you and questions



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