A guide to the FFP3 respirator

An FFP3 respirator should be worn by frontline staff when carrying out a potentially infectious aerosol-generating procedure. Where a patient is known/suspected to have an infection spread via the aerosol route or when caring for patients known/suspected to be infected with a newly identified respiratory virus. It is a legal requirement that anybody who might be required to wear an FFP3 respirator be **fit tested in order to check that an adequate seal can be achieved** with each specific model. It is also important that the user carries out a fit check each time an FFP3 respirator is worn.

This booklet is designed to complement the FFP3 fit test training sessions being rolled out by trusts. It provides visual and practical information on:

- When to use them
- How to put on and fit check them
- How to fit test them
When to use a **surgical face mask** or **FFP3 respirator**

When caring for patients with **suspected or confirmed infectious respiratory virus**, all healthcare workers need to – prior to any patient interaction – assess the infectious risk posed to themselves and wear the appropriate personal protective equipment (PPE) to minimise that risk.

### When to use a surgical face mask

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<tr>
<th>In cohorted area (but no patient contact)</th>
<th>Close patient contact (within one metre)</th>
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</thead>
<tbody>
<tr>
<td><strong>For example:</strong> Cleaning the room, equipment cleaning, discharge patient room cleaning, etc</td>
<td><strong>For example:</strong> Providing patient care, direct home care visit, diagnostic imaging, phlebotomy services, physiotherapy, etc</td>
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**PPE to be worn**

- Surgical face mask (along with other designated PPE for cleaning)
- Gloves
- Eye protection (if risk of contamination of eyes by splashes or droplets)

### When to use an FFP3 respirator

**Carrying out potentially infectious aerosol generating procedures**

**Where a patient is known/suspected to have an infection spread via the aerosol route**

**When caring for patients known/suspected to be infected with a newly identified respiratory virus**

**For example:**
- bronchoscopy, endotracheal intubation, tracheostomy procedures, cardiopulmonary resuscitation, diagnostic sputum induction:

**PPE to be worn**

- FFP3 respirator
- Apron
- Gloves
- Eye protection

- Fit testing should be carried out by a properly trained competent fit tester.

*These images are for illustrative purposes only. Always follow the manufacturer’s instructions.*

### Remember

- PPE should be put on and removed in an order that minimises the potential for cross-contamination.
- The order for PPE removal is gloves, apron or gown, eye protection, surgical face mask or FFP3 respirator.

- Hand hygiene must always be performed following removal of PPE.
- Healthcare workers who have had influenza vaccination, or confirmed influenza infection, are still advised to use the above infection control precautions.
How to put on and fit check an **FFP3 respirator**

Follow these five steps to fit your respirator correctly

*Tip: It may be helpful to look in the mirror when fitting your respirator*

1. Hold the respirator in one hand and separate the edges to fully open it with the other hand. Bend the nose wire (where present) at the top of the respirator to form a gentle curve.

2. Turn the respirator upside down to expose the two headbands, and then separate them using your index finger and thumb. Hold the headbands with your index finger and thumb and cup the respirator under your chin.

3. Position the upper headband on the crown of your head, above the ears, not over them. Position the lower strap at the back of your head below your ears.

4. Ensure that the respirator is flat against your cheeks.

5. Mould the nosepiece across the bridge of your nose by firmly pressing down with your fingers until you have a good facial fit. If a good fit cannot be achieved, do not proceed.
Now perform a fit check

- Cover the front of the respirator with both hands, being careful not to disturb the position of the respirator on the face.
- For an unvalved product – exhale sharply; for a valved product – inhale sharply.
- If air flows around the nose, readjust the nosepiece; if air flows around the edges of the respirator, readjust the headbands.
- A successful fit check is when there is no air leaking from the edges of the respirator. Always perform a fit check before entering the work area.
- If a successful fit check cannot be achieved, remove and refit the respirator.
- If you still cannot obtain a successful fit check, do not enter the work area.

Remember

- FFP3 respirators are designed to protect the wearer from breathing in small airborne particles which might contain viruses. A fit check is not a substitute for fit testing.
- They should be worn only when carrying out aerosol-generating procedures on patients with a suspected or confirmed respiratory virus. Where a patient is known/suspected to have an infection spread via the aerosol route or when caring for patients known/suspected to be infected with a newly identified respiratory virus.
- Clean shaven skin will help to ensure an appropriate fit.
- Respirators must be used with other necessary personal protective equipment (PPE) such as gowns, gloves and compatible eye protection.
- Respirators should be discarded after each use.
- Respirators should be disposed of as healthcare waste.
- Hand hygiene must always be performed following removal and disposal of PPE.
- The respirator images are for illustrative purposes only. Always follow the manufacturer’s instructions.
How to fit test an FFP3 respirator

Fit testing should be carried out by a properly trained and competent fit tester. These instructions are a guide to how fit testing should be carried out. Fit testing assesses how well a respirator is sealed to your face. Qualitative fit testing relies on subjective sensation – in this case, taste.

Qualitative fit testing is performed in two parts:

**Step 1: The sensitivity test (or taste test):**
This test is to check if and at what point you can taste the sensitivity test solution. It is done without wearing the respirator. There are two types of test solution: bitrex (bitter) or saccharin (sweet).

**Step 2: The fit test:**
This test is to check the fit of the respirator; if it is fitted correctly then you should not be able to taste the test solution.

**Before the test:**
You should not eat, drink (except water), smoke or chew gum for at least 30 minutes before the test.

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**Step 1: The Sensitivity Test (Without Wearing the Respirator)**

**Set Up**
1. Place a few drops of the sensitivity test solution into the sensitivity nebuliser.
2. Put the test hood on the person (without the respirator).
3. Instruct them to indicate as soon as they taste the solution.

**Begin The Test**
5. Remove both plugs and insert the nozzle of the nebuliser into the hole at the front of the hood. While keeping the nebuliser vertical, squeeze the bulb firmly, fully collapsing the bulb and allowing it to expand again fully. Do not squeeze directly into the person’s mouth.
6. Apply up to 10 squeezes.
7. If tasted, note the number of squeezes as 10 and proceed to the fit test.
8. If the person has not tasted the solution after 10 squeezes, apply up to 10 additional squeezes. If tasted, note the number of squeezes as 20 and proceed to the fit test.
9. If the person has not tasted the solution after 20 squeezes, apply up to 10 additional squeezes. If tasted, note the number of squeezes as 30 and proceed to the fit test.
10. Finally, remove the hood and allow the person to rinse their mouth with water and wipe their face.

**Notes**
- If no taste is detected by 30 squeezes, then try the alternative solution using the same procedure.
- If the person is unable to taste either solution, then quantitative fit testing is suggested using Portacount.
- The person should not proceed to the fit test stage until the taste of the sensitivity test solution has been allowed to clear. This usually takes about 10 minutes. A drink of water may help.
Step 2: The Fit Test (Wearing the Respirator)

Set Up
1. Make sure the FFP3 respirator is fitted correctly on the person and a fit check has been conducted.
2. Place a small amount of the fit test solution into the fit test nebuliser.
3. Put the test hood on the person.
4. Ask the person to breathe through their mouth with their tongue at the front.
5. Instruct them to indicate immediately if the solution is tasted.

Begin The Test
5. Introduce the solution in an initial dose. Refer to the table below for the appropriate amount.

<table>
<thead>
<tr>
<th>Number of squeezes for initial dose</th>
<th>Number of squeezes for ‘top-up’ dose (added every 30 seconds)</th>
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<tbody>
<tr>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>30</td>
<td>15</td>
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6. After the initial dose determined in the sensitivity test, ask the person to carry out the seven exercises opposite for one minute each.
7. Remember to add a ‘top-up’ dose every 30 seconds and record the results.
8. Throughout the fit test, make sure that you can see the spray Coming out of the nebuliser. If it cannot be seen, the nebuliser may have become blocked; unblock before restarting.

Notes
• If the solution is not tasted after all seven exercises, the person has passed the test with that respirator.
• If the solution is tasted, stop the test. After the taste of the fit test solution has been allowed to clear, repeat the set up stage and start the fit test again.
• If the solution is tasted for a second time, record a fail and try a different size or model of respirator.
Fit test exercises
These exercises simulate some of the stresses that the FFP3 face seal may undergo during your work. You must perform each of the exercises in order to ensure a successful test. Each exercise should last approximately one minute. Breathe through your mouth throughout.

1. Normal breathing
   Breathe normally with no head movements or talking.

2. Deep breathing
   Breathe slowly and deeply.

3. Turning head from side to side
   Slowly turn your head from side to side as far as you can. Look over each shoulder momentarily and inhale.

4. Moving head up and down
   Slowly move your head up and down, inhaling when you are facing upwards (towards the ceiling).

5. Bending over
   From a standing position, bend at the waist as if to touch your toes.

6. Talking
   Speak slowly and loudly enough so your fit tester can hear you clearly.

7. Normal breathing
   Breathe normally with no head movements or talking.

Remember
- The Fit Test procedure should be carried out by a trained competent fit tester in accordance with the manufacturer’s instructions.
- Support guidance is available at www.hse.gov.uk/pubns/fittesting.pdf