

Information for trained fit testers on organising qualitative fit testing sessions for respirators

Updated 02.07.20: see highlighted sections

1. National guidance and indemnity

INDG479 provides the latest guidance on fit testing.

<https://www.hse.gov.uk/pubns/indg479.htm>

Those wishing to become fit testers must have undergone a 'Fit2Fit approved' qualitative fit test training course delivered by a Fit2Fit accredited face fitter (see document titled 'Finding a fit tester or sourcing training to become one' and <https://www.fit2fit.org/fit2fit-approved-training-providers/> for information). Fit testers must be clear which types of respirator they have been trained to qualitatively fit test.

The urgent dental care standard operating procedure

<https://www.england.nhs.uk/coronavirus/publication/covid-19-guidance-and-standard-operating-procedure-urgent-dental-care-systems-in-the-context-of-coronavirus/> states:

“Fit testing of PPE may be performed by dental staff with appropriate training, or third party contractors that specialise in such services. Dental contractors should inform their employers liability (EL) insurer that all staff undertaking aerosol generating procedures are required to be fit tested for appropriate PPE, to ensure their EL insurance cover is sufficient. In addition, contractors should also notify their insurers if they are performing the fit testing for their own staff or that of other local dental contractors, again to ensure EL cover is adequate.”

Dental professionals should inform their professional indemnity company of their intentions to provide fit testing for dental teams, and for whom (e.g. UDCs only/own practice dental team/ for dental teams in other dental practices). Fit testers must contact their own indemnity company for specific advice, as levels of cover vary between companies and may depend on the type of training they have undertaken. Please note that if a course is 'Fit2Fit approved' it means that the content has been judged to include all aspects of the Health and Safety Executive's face fitting guidance and protocols, and will be delivered by a Fit2Fit accredited face fitter. This course does not award delegates the Fit2Fit accreditation upon completion; no training course can do that. The only way to gain accreditation is to sit and pass the BSIF Fit2Fit exam.

NHS England and Improvement is planning to engage fit testers under an honorary agreement, which will cover any liabilities arising through that agreement. This is still under discussion.

2. Planning a qualitative fit testing session

Fit testers should liaise with their Local Dental Networks and Local Dental Committees to find out the details of local dental practices/organisations which need fit testing for disposable FFP3/FFP2/N95 or reusable half masks with replaceable P3 particle filters. Information for trained fit testers on organising qualitative fit testing sessions for respirators

If possible, two trained fit testers should 'buddy up' to provide each fit testing session so they can support and help each other, as it can be quite a demanding process.

The pair of fit testers should choose a convenient geographical location and suitable venue to service the dental practices being fit tested. When choosing a location, consider whether there is enough space to allow for social distancing and enough ventilation.

The fit testers should contact those dental practices and find out how many staff need fit testing for respirators (disposable FFP3/FFP2/N95 or reusable half masks with replaceable P3 particle filters). Only staff who will do aerosol generating procedures (AGPs) wearing these respirators need fit testing (as per the OCDO England dental standard operating procedure: transition to recovery <https://www.england.nhs.uk/coronavirus/publication/dental-standard-operating-procedure-transition-to-recovery/>)

Ensure dental practices proposing to send staff for fit testing understand that people put forward for fit testing should have been risk assessed by their employer/line manager to check their medical suitability for being fit tested and providing dental care PRIOR to people coming to the fit testing session. People in the clinically extremely vulnerable (shielded) group would not be suitable. Many people in the clinically vulnerable group would also be unsuitable (as per individual risk assessment).

Anyone who is COVID-19 positive/symptomatic/in household isolation/been asked to self-isolate by NHS Test and Trace should NOT attend the fit testing session.

There have been some reports of allergy and asthmatic episodes related to the use of sensitivity and fit testing solutions containing Bitrex (denatonium benzoate) used in the fit testing process. Bitrex is commonly found in many cleaning products and other household products. Dental practices should be advised that anyone with a known allergy to Bitrex should not attend the session. Instead, they should make contact with the fit tester before the session to discuss whether alternative solutions (containing sodium saccharin) are available, and whether the participant has any allergy to it.

Dental practices should also be made aware that staff observing Ramadan may not wish to be fit tested due to the spraying of sensitivity and fit-testing solutions, and the need to drink water during the process. Arrangements for them to be fit tested at a later date instead may be made.

Dental practices should also be reminded that participants need to be clean shaven in the region of the face seal for the fit test (and subsequent clinical work), or if they have a moustache/goatee this must not impinge on the border of the mask. For any style, hair should not cross or interfere with the respirator sealing surface. If the respirator has an exhalation valve, hair within the sealed mask area should not impinge upon or contact the valve. The link for the information on facial hair is near the bottom of this webpage: <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control>

For dental staff who are unable to shave their facial hair for religious, cultural or personal reasons, there are alternative styles of respirator which may be used, such as a powered air purifying respirator (PAPR or powered hood/helmet). There are different styles, some of which are able to accommodate a turban. Manufacturer's guidelines should be sought prior to purchase around decontamination to prevent cross-infection. For more information see: <https://www.hse.gov.uk/pubns/priced/hsg53.pdf>

Choose convenient timings and groupings for the participants to attend the fit testing session such that social distancing is promoted as far as possible. Send all the participants an email with as much notice as possible, containing information on:

Venue for fit testing: INSERT ADDRESS AND CONTACT NUMBER AND MAP/WEBSITE

Date of fit testing session: INSERT DATE

Time to arrive: INSERT TIME participant should attend

Each participant should also be sent the most recent version of the '**important information for participants attending qualitative fit testing sessions**' document - so that they know what to read and watch before attending the session, what to bring with them, and a reminder to shave and not eat/smoke/brush teeth beforehand. They should be told to expect their session to last 1-2 hours (depending on whether they need a re-test).

Liaise with the venue about arrangements and things you may need them to provide on the day for running the fit testing session:

- a. Decide where participants should sit during the stages of the fit testing sessions, to enable social distancing as much as possible. Fit testing should be conducted in a large ventilated area e.g. the waiting room. Decide where to set up the PHE PPE donning and doffing videos to watch, and an area for participants to practice donning and doffing if they wish (at their own risk).
- b. **Disposable** gloves – for fit testers to wear, and anyone else who wishes to.
- c. Disinfectant wipes - for wiping the hood and cleaning nebulisers between use.
- d. Fluid-resistant (type 11R) surgical face masks – for fit testers and others to wear.
- e. Spare visors in case participants forget to bring their eye protection (**only headband/frame part to be used** in the fit testing process if it has the potential to interfere with the fit of the respirator – see below).
- f. Enough respirators for everyone to be tested (disposable FFP3/FFP2/N95 or reusable half masks with replaceable P3 particle filters) - the fit test is specific to this make, model, material and size **ONLY**.
- g. Printed out qualitative fit test results sheets for recording the process (2 per person present). Please ensure there are enough copies printed out for the whole day.
- h. **Disposable plastic cups of plain drinking water for each participant or ask participants to bring their own water bottle.**
- i. Mirror for checking the fit
- j. Have supplies of the PHE-recommended PPE for participants to practice donning and doffing with if they wish (at their own risk).

3. Things to remember on the day

Before commencing, please confirm with participants that they are not COVID-19 positive/symptomatic/been in household isolation/been asked to self-isolate by NHS Test and Trace.

There have been some reports of allergy and asthmatic episodes related to the use of sensitivity and fit testing solutions containing Bitrex (denatonium benzoate). As such, it would be prudent to check for any previous reactions before commencing a fit testing

session. Bitrex is commonly found in many cleaning products and other household products. Also check for allergies if sodium saccharin solutions are being used instead. Where a participant fails to taste Bitrex, the sodium saccharin solution may be tried instead. However, please be aware that a change or loss in taste (or smell) is one of the symptoms of COVID-19, so it is prudent to check whether there has been a general loss/change in taste (or smell).

HSE's latest guidance for fit testers on avoiding transmission of COVID-19 can be found here <https://www.hse.gov.uk/coronavirus/ppe-face-masks/face-mask-ppe-rpe.htm> . Good hand hygiene must be performed by participants and fit testers before, during and after the fit testing session; and where possible social distancing will be applied. Fit testers must:

- a. Wear disposable gloves and a fluid-resistant (type IIR) surgical face mask
- b. Ensure the hood is cleaned inside and outside (where held) between each test using a suitable disinfectant wipe that won't damage the visor.
- c. Ensure the nebuliser is cleaned with a disinfectant wipe between participants, including the plastic nozzle which fits inside the hood. Ensure the nebulizer is dismantled between sessions, and washed out to keep it clean and stop crystallisation of solutions blocking the end of the atomiser.
- d. Reusable half masks should be cleaned according to manufacturer's instructions for COVID-19 before and after fit testing, and each person being fit tested should have their own. They should have replaceable P3 particle filters, which are enclosed in a box which can be disinfected. Open/exposed filters cannot be easily cleaned, and are therefore unsuitable for dental practice.

Please ensure the fit test kit is set up and maintained as per manufacturer's instructions. Follow the protocol for fit testing as per your Fit2Fit approved training course (e.g. the fit test training PowerPoint provided in the RPA Ltd training is a useful reference for carrying out the fit testing session. The training and slides they provide, are designed to be read alongside HSE INDG 479, Fit2Fit guidance and the manufacturer's instructions.)

The Fit2Fit guidance document for qualitative fit testing and other resources are available here: <https://www.fit2fit.org/resources/>

In addition, when carrying out the fit test, there are a few reminders:

a) PPE being worn by participants during the fit test

HSE INDG 479 guidance states:

'Wearers should wear any other PPE that could potentially interfere with the fit of the facepiece during the fit test. If they cannot wear the PPE properly without affecting the function of the RPE or vice versa, choose alternative PPE.'

Such PPE includes (but is not limited to): Safety Glasses (also prescription spectacles), goggles, hard hat, ear defenders and any other head-worn PPE that may interfere with the seal. This may include the head-band (frame) of the visor, but **not** the perspex front of the visor itself (it would be very difficult / impossible to conduct a proper fit test with the full visor in place as this would act as a barrier between the nebulised aerosol and the wearer, increasing the likelihood of false passes). Whether the head-band (frame) has the potential to interfere with the fit of

the facepiece will be specific to the individual head-band / mask combination and may therefore be open to your judgement. **If the perspex front of the visor cannot be detached from the headband (frame), the fit test should be carried out without it.**

b) The 2 bungs in each nebuliser

It is essential that both bungs are removed from the sensitivity and fit test nebulisers whenever they are being used. There are two bungs on nebuliser A and two bungs on nebuliser B. The two bungs on each nebuliser must be removed in order that the nebuliser correctly atomises the solution in the correct quantity. One is a round-shaped bung and the other is an oblong-shaped bung. This guidance is also included in Fit2Fit guidance and the manufacturer's instructions.

c) When a fit-test fails

In the case of a fit test failure, the whole test (including the sensitivity test) must be repeated, once the wearer's palate has cleared, as the wearer has tasted the fit test solution and therefore their taste sensitivity threshold must be re-established. This guidance is also included in Fit2Fit guidance and the manufacturer's instructions.

d) Purpose of the reveal test

The reveal test provides reassurance to the wearer and the fit tester about the test and the ability of the mask to provide protection against an aerosol, but you should not use this as an absolute determinant of pass/fail (if it was that easy then you wouldn't need to bother with the rest of the test!). The reveal test essentially creates a 100% leak which means that the wearer will experience a taste if ANY solution is present. This is guidance only (and not an essential part of the fit-test) – this is highlighted in Fit2Fit guidance.

4. Paperwork

Fit testers will complete a qualitative fit test results sheet for each participant. The fit test results sheet should include detailed information as described in INDG 479 (Annex 1). If someone has a re-fit test on a specific respirator because they failed their initial test, ensure that it is clear which paperwork related to the first failed tested and which paperwork relates to their re-test.

The fit tester should keep a hard copy of the qualitative fit test results sheet(s) for each participant they have fit tested for their records, in case there are any subsequent queries from participants, or if participants need to have a repeat fit-test for reasons such as equipment/operator error. The participants should also take a photo of their fit test results sheet on their own personal mobile phone, or request that the fit testers write out an additional hard copy or photocopy/scan the original for them to take away for their own **and employer's** records. They should be clear whether they have passed or failed the test for the particular make, model, material and size of respirator they have been tested on. It is important that they understand that if they have passed the fit test it means they can only wear respirators of the exact make, model, material and size written on the record. If they subsequently wish to wear a different make, model, material or size of respirator, they will need to attend another fit-testing session and go through the whole process of sensitivity testing and fit testing for this new type.

Dental practices should be encouraged to keep up to date records concerning fit testing for their staff. **For reusable half masks, they should also have a cleaning, inspection (e.g.**

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checking seal, filters, and valves for faults/damage), storage and maintenance protocol as per manufacturer's instructions. Written records should be kept of mask maintenance and dates for review fit testing. Records of fit tests, inspections/checks and repairs/replacements should be kept for at least 5 years.

5. For any queries about fit testing

Fit testing is a new area for dentistry. As such, you may well have questions as you start to do fit testing sessions. Please direct any questions to the fit test training company you used.

6. Equipment

Fit testing kits, sensitivity and fit testing solutions can be purchased through suppliers (often building suppliers) or sourced through prison healthcare providers, LRF's or the NSDR route. Please speak to your fit testing company to see if what you are proposing to use is appropriate, as they will be able to provide expert advice. There are several well-known brands on the market e.g. 3M, Moldex, Alpha Solway, JSP. The national guidance around fit testing is in HSE INDG 479 which mentions: "The test solution concentrations and the fit test equipment including hood size are specified in BS ISO 16975-3." Although this should in theory mean that all brands should be the same if they meet those guidelines, there does appear to be some variation. As such, it would be prudent to:

- Use the same brand of fit test kit (containing hood, nebuliser A and nebuliser B) for carrying out both the sensitivity test and the fit test for an individual participant. This will ensure that the same sized hood, and nebuliser A and nebuliser B from the same kit are used on both occasions.
- Use the same brand of the sensitivity test solution and fit test solution on each individual participant.
- To prevent nebuliser operator differences (how strong you squeeze the nebuliser affects how much solution comes out!), please ensure that only one fit-tester is using nebuliser A and nebuliser B for each participant for the sensitivity test and fit test, while their buddy does the timing. Squeeze fully as per manufacturer's instructions!

Please ensure the fit test kit is set up and maintained as per manufacturer's instructions.

7. Future fit testing

A fit test should be repeated whenever there is a **change in RPE (respiratory protective equipment) type, size, model, or material**, or whenever there is a **change to the circumstances** of the wearer that could alter the fit of the RPE. For example:

- weight loss or gain
- substantial dental work
- any facial changes (e.g. scars, moles, effects of ageing) around the face seal area
- facial piercings
- introduction or change in other head-worn personal and protective equipment (PPE)

In addition, Fit2Fit recommends that fit testing of RPE should also be repeated every 2 years. In some situations, it should be repeated more regularly, particularly where RPE is being used as a primary or sole means of control.

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