

Advice for patients with a tracheostomy in the Coronavirus pandemic

This advice is based on the medical team at the NTSP's interpretation of the UK Government's advice on avoiding and managing COVID-19 infection and also of the relevant literature available to date. The advice was revised on 24/4/20 and is likely to change as we learn more.

We recognised that this is a worrying time for patients with altered airways, tracheostomies and laryngectomies, and their families and carers. Patients may be managed in hospital or in the community. There may be a significant surge in the number of patients requiring a tracheostomy as part of the management of their critical illness.

Background and general advice

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the virus that causes coronavirus disease. The 2019 strain of the virus causes the COVID-19 disease which is currently causing the worldwide pandemic. This virus originated from animals.

By contrast, seasonal flu is an 'all human' virus which means that the human body has some immunity to it. Seasonal flu is that particular year's mutation of the virus. This is a new problem for humans each year, but because we have some natural immunity, flu epidemics don't cause such big problems. Humans have no natural immunity against 'novel' (animal) viruses. When this particular coronavirus developed the ability to pass from human to human, the pandemic started.

The first case was reported in late December 2019 and that is why there is no vaccine, no effective treatment, and all of the advice and guidance for healthcare staff and the public seems to constantly change. The global healthcare community is working hard to treat people who get infected and to protect vulnerable patients and the wider community from becoming infected.

Coronavirus spreads when an infected person coughs small droplets - packed with the virus - into the air. Potentially, these infected droplets can be breathed in and cause an infection. However, the most likely way you will become infected is if you touch a surface that the virus has landed on, usually from a cough or a sneeze from an infected person, or from direct contact. The virus has to enter your body via a 'mucous membrane' - **your eyes, nose or mouth**.

The current advice on preventing transmission of the virus therefore focuses on 'social distancing' for everyone (keeping 2 metres apart from anyone), avoiding contact with anyone who is unwell with the coronavirus symptoms, and careful hand hygiene.

More strict isolation measures are being proposed and enforced for two main reasons. Firstly, by limiting the spread of the virus through social contact (including isolating people who develop infections and their immediate family contacts), the peaks of infection can be reduced which will allow healthcare services a little more time to deal with the surge in demand for hospital and intensive care beds. Secondly because there is no specific treatment if you become unwell, those who are more vulnerable to becoming severely unwell following infection are

being advised to stay at home and self-isolate to protect themselves. These groups are called ‘vulnerable people’.

What should I do to prevent catching and spreading the virus?



Wash hands frequently with soap and water or use a sanitiser gel



Catch coughs and sneezes with **disposable tissues**



Throw away used tissues (then wash hands)



If you don't have a tissue **use your sleeve**



Avoid touching your eyes, nose and mouth with unwashed hands



Avoid close contact with people who are unwell

Source: NHS

BBC

Who is a vulnerable person?

The UK government and the NHS have classified two groups of vulnerable people:

- Vulnerable
- Extremely vulnerable

Vulnerable people should undergo **strict social distancing**. Vulnerable people are considered as people who are:

- aged 70 or older (regardless of medical conditions)
- under 70 with an underlying health condition listed below (ie anyone instructed to get a flu jab as an adult each year on medical grounds):
 - chronic (long-term) respiratory diseases, such as [asthma](#), [chronic obstructive pulmonary disease \(COPD\)](#), emphysema or [bronchitis](#)
 - chronic heart disease, such as [heart failure](#)
 - [chronic kidney disease](#)
 - chronic liver disease, such as [hepatitis](#)
 - chronic neurological conditions, such as [Parkinson's disease](#), [motor neurone disease](#), [multiple sclerosis \(MS\)](#), a learning disability or cerebral palsy
 - [diabetes](#)
 - problems with your spleen – for example, [sickle cell](#) disease or if you have had your spleen removed
 - a weakened immune system as the result of conditions such as [HIV and AIDS](#), or medicines such as [steroid tablets](#) or [chemotherapy](#)
 - being seriously overweight (a body mass index (BMI) of 40 or above)
- those who are pregnant

The advice for anyone in these groups, with or without a tracheostomy or laryngectomy, is to undertake strict social distancing. You can find out what this means on the [UK Government website here](#).

Extremely vulnerable people should undergo **shielding**.

Some people, including children, are at very high risk of severe illness from coronavirus (COVID-19) because of an underlying health condition. The government has introduced 'shielding measures' for these **extremely vulnerable** groups. This applies to extremely vulnerable people living in their own home, with or without additional support. This also includes extremely vulnerable people living in long-term care facilities.

Shielding minimises all interactions between those who are extremely vulnerable and others. The UK government is strongly advising people with serious underlying health conditions (listed below), which put them at very high risk of severe illness from coronavirus, to rigorously follow shielding measures in order to keep themselves safe.

People falling into the **extremely vulnerable person** category include:

1. Solid organ transplant recipients.
2. People with specific cancers:
 - people with cancer who are undergoing active chemotherapy or radical radiotherapy for lung cancer
 - people with cancers of the blood or bone marrow such as leukaemia, lymphoma or myeloma who are at any stage of treatment
 - people having immunotherapy or other continuing antibody treatments for cancer
 - people having other targeted cancer treatments which can affect the immune system, such as protein kinase inhibitors or PARP inhibitors
 - people who have had bone marrow or stem cell transplants in the last 6 months, or who are still taking immunosuppression drugs
3. People with severe respiratory conditions including all cystic fibrosis, severe asthma and severe COPD.
4. People with rare diseases and inborn errors of metabolism that significantly increase the risk of infections (such as SCID, homozygous sickle cell).
5. People on immunosuppression therapies sufficient to significantly increase risk of infection.
6. Women who are pregnant with significant heart disease, congenital or acquired.

The NHS in England is directly contacting people with these conditions to provide further advice. If you think you fall into one of the categories of extremely vulnerable people listed above and you have not received a letter by Sunday 29 March 2020 or been contacted by your GP, you should discuss your concerns with your GP or hospital clinician.

[Does having a tracheostomy or a laryngectomy make me a vulnerable person?](#)

Some of the conditions listed above could lead to a tracheostomy. So, if you have a tracheostomy or laryngectomy *because of* one of those conditions listed above (severe COPD or you are undergoing chemo/radiotherapy for head and neck cancer for example) then you would be considered an extremely vulnerable person. If you are receiving home ventilation via a tracheostomy then this is because you cannot breathe adequately by yourself. This also means you are an extremely vulnerable person.

However, just having a tracheostomy or a laryngectomy can increase the risk of a person catching coronavirus, spreading the infection and there is an increased chance that a person will be more severely affected by COVID-19 if they already have a tracheostomy or a laryngectomy. This information is based on consensus expert opinion from many of the organisations that represent the staff groups who care for patients with tracheostomies and laryngectomies.

Whilst you may feel perfectly well, and function entirely independently with your tracheostomy or laryngectomy, the fact that you have an altered airway makes you more vulnerable than someone with a 'normal' airway. Expert opinion concluded that:

- You are more likely to catch coronavirus because:
 - Your airway does not have the usual filtering mechanisms of the nose and mouth always available
 - Your cough effort is reduced.
 - The care of your stoma and/or tube needs multiple contacts with your airway.
 - You are more likely to need the help of others in your day-to-day activities relating to the care of your stoma.

- You are more likely to infect others if you were to become infected yourself:
 - Partly because you are more likely to need the help of others in your day-to-day activities relating to the care of your stoma.
 - But also because you are more likely to use nebulisers, humidification, suctioning and undergo procedures that can make you cough (and generate 'aerosols').

- You are more likely to get more severely affected if you contract COVID-19:
 - Your breathing and coughing is less effective when you have a tracheostomy or a laryngectomy.

Experts and patient representatives from a number of societies have written to the UK government to ask them to consider including those with tracheostomies and laryngectomies as extremely vulnerable.

The groups include; ENT UK, the Royal College of Speech & Language Therapists, the British Laryngological Association, the British Association of Head and Neck Oncologists, the British Association of Oral & Maxillofacial Surgeons, the National Tracheostomy Safety Project, the National Association of Laryngectomy Clubs, Head & Neck Cancer UK, the Royal College of Surgeons, England and the Royal College of Physicians

Is there anything specific I can do to protect myself?

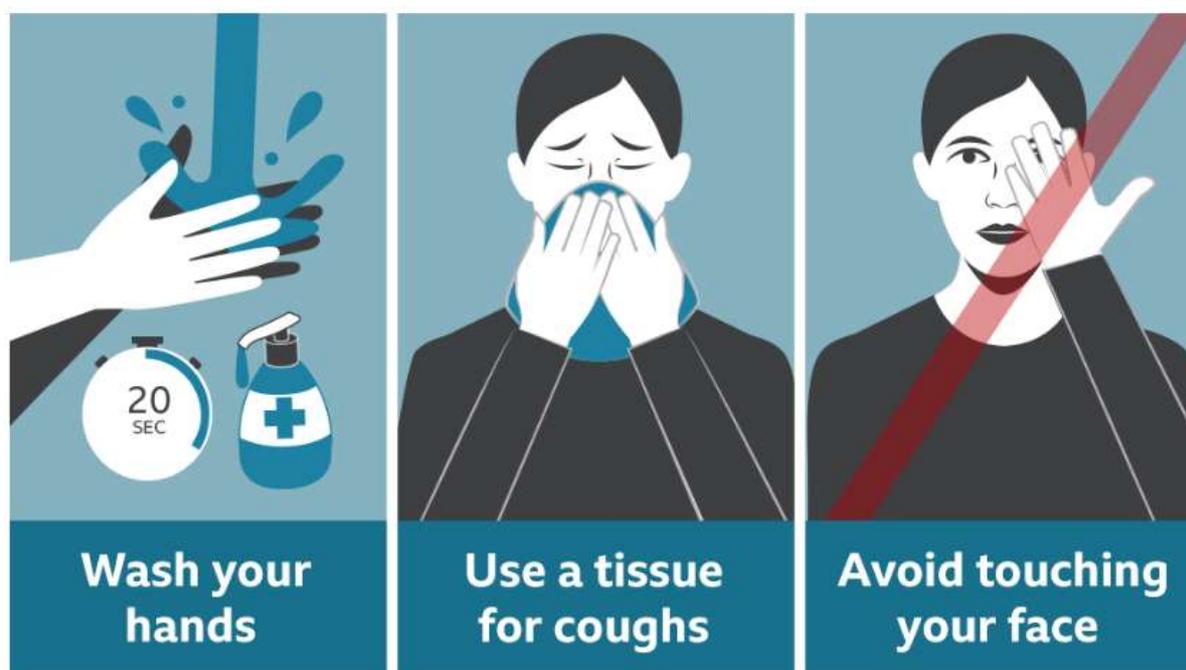
Protection from contaminated surfaces, hands, or other people

You are much more likely to get an infection from touching your eyes, nose, mouth, face or your stoma with your hands, after they have come into contact with an infected surface.

- Wash your hands often with soap and water for at least 20 seconds.
- Or, use an alcohol-based hand sanitizer that contains at least 60% alcohol if soap and water are not available.
- Avoid touching your stoma, tubes, eyes, nose, and mouth with unwashed hands.
- Avoid close contact with people who are sick.
- Clean and disinfect frequently touched objects and surfaces.

Protection from direct inhalation of coronavirus from the air

Droplets from a cough or sneeze from a person infected with coronavirus can travel in the air for about 1 metre usually. A really strong cough or sneeze could spread the droplets up to 2 metres in theory. Smaller droplets can theoretically travel further but they are so small that they evaporate quickly in the air. These small droplets also contain much less virus than the larger droplets. Larger droplets fall quickly with gravity. If you are 2 metres (about 6 feet) away from someone who is coughing or sneezing, then it is extremely unlikely that a significant number of virus-containing droplets will be inhaled.



Having a tracheostomy or a laryngectomy means that you can breathe into your lungs directly via your stoma (or tracheostomy tube). Whilst this by-passes the normal ‘filters’ in your nose, this doesn’t make you more or less at risk of contracting the virus from direct inhalation of contaminated droplets in the air. This is because you can pick up the infection via your nose as well as by breathing it in directly into your windpipe or lungs.

You can reduce the risks from inhalation by:

- Keeping at least 2 metres away from other people (whether they have the virus or not). Remember that most people will have minimal or mild symptoms from COVID-19 infection.
- Use a stoma or tube HME (Heat and Moisture Exchange) filter, especially when around other people.
- HME with greater filtering ability would theoretically work better in reducing the risk of inhaling the virus. Your regular supplier should be able to advise you.
- If you can't wear an HME filter, consider a standard (surgical) facemask over your stoma or tracheostomy tube, especially if around other people.

Protection from carers or family members

As above, the commonest way that people will get infected is from direct contact with infected people or surfaces. Talk to your family or your carers about this.

Family members or carers who have symptoms, or who are at risk of spreading COVID-19 from contact with an infected person, should avoid close contact with you. Carers should not work and self-isolate. This can be difficult for you, especially if replacement carers are unfamiliar or less regular. Make sure any helpers follow strict hand hygiene.

Patients with a laryngectomy

The National Association of Laryngectomee Clubs (NALC) have produced specific guidance for laryngectomees with respect to coronavirus. You can read about it [via this link](#).

There is some useful practical advice from The American physician, and laryngectomee, Dr Itzhak Brook, who has written about coronavirus on his blog. You can read Dr Brook's blog [via this link](#). In addition to the general advice above, he specifically suggests:

- Wearing hands free HME (because it does not require touching when speaking).
- Those who use a regular HME should wash their hands before touching their HME.
- Wearing a facemask over the stoma.

Stay safe!