

Airway Clearance Physiotherapy

Airway clearance is an essential part of the treatment routine for people with CF. Performing regular airway clearance helps loosen the thick, sticky mucus from the airways so it can be cleared more easily with huffing and coughing.

Removing mucus from the airways is important to reduce the risk of infections, or exacerbations, and prevent permanent lung damage. If the mucus stays in the airways it provides a breeding ground for germs and bacteria.

When does airway clearance start?

Airway clearance is usually started at the time of CF diagnosis. This is important as it helps establish good routine and prevent build-up of mucus in the lungs. Some families may take longer to start airway clearance as other health issues may take priority. The CF team will make this decision.

Parents will be taught how to do airway clearance with their child by their specialist CF physiotherapist. As they get older, children will become more independent, so they are eventually able to carry out their own airway clearance.

How often is airway clearance done?

It is recommended that airway clearance is performed every day, however, each person will have an individual program as decided by their primary care team. The number of sessions may increase when unwell.



How long does airway clearance take?

The length of time taken to complete airway clearance will vary depending on the technique chosen, the amount of mucus and how well the person is. Airway clearance may take longer when unwell as there may be more mucus to clear or it may be thicker and more difficult to clear.

What are the different types of airway clearance?

There are lots of different airway clearance techniques and a specialist CF physiotherapist will help create an individualised program that best suits individual needs. Airway clearance can be combined with exercise to enhance mucus clearance.

Positioning and Percussion

Uses positioning and patting with a cupped hand on the child's chest to loosen and clear mucus. It is most commonly used in babies and young children when active participation is not possible.

Positive Expiratory Pressure (PEP)

PEP devices provide resistance when breathing out, to splint open airways and get air behind mucus plugs. The aim is to move mucus upwards in the airways, towards the mouth so it can be more easily cleared. There are many different PEP devices including mouthpiece PEP, PEP mask, flutter and bottle PEP.

Active Cycle of Breathing Technique (ACBT)

ACBT combines deep breathing, relaxed breathing and huffing and coughing in a cycle to help clear mucus from the lungs. It can be done in a variety of positions, with or without percussion.

Autogenic Drainage (AD)

AD is a controlled breathing technique that involves breathing at different lung volumes to move mucus from the small airways to the larger airways.

Support

If you would like support with airway clearance routines at home, please contact CFWA on services@cfwa.org.au.

Useful resources

- [Airway clearance therapy](#) (CF Physio)
- [CF Physio 4 Kids](#)
- [Airway clearance factsheets](#) (CFWA)