

Airway Clearance Techniques: Modified Postural Drainage and Percussion

What Are Airway Clearance Techniques?

Airway Clearance Techniques (ACTs) are an essential part of management for people with cystic fibrosis (CF). Performing regular airway clearance helps loosen the thick sticky mucus from the airways so it can be cleared more easily.

Modified Postural Drainage (MPD) and percussion is an ACT used most commonly in babies and young children who are too young to actively participate in their treatment. Once patients are older, blowing games, deep breathing and active play are incorporated into the treatment with the aim to make it more interactive and effective.

What is Modified Postural Drainage?

MPD involves placing the child in different positions either lying flat or with their head slightly elevated, to help move mucus from different parts of the lungs. Using different positions alters airflow and gas exchange, which can also help to move mucus.

What is Percussion?

Percussion is firm, rhythmical patting on the chest wall with a cupped hand or fingers, ensuring the head is always supported. It should only be done over the ribs with a layer of clothing or towel over the area being treated. It should



not be painful. Most young babies enjoy percussion as it is quite soothing. If they are fussing or crying during treatment it is important to continue unless the baby is distressed.

What Is the Usual Routine?

Daily treatment for babies consists of three positions in the morning and three in the evening, spending five minutes in each position. Treatment should be started when baby is awake, but it is ok to keep going if they fall asleep.

Positions

Upright Front

Place your baby in an upright supported position. Pat as high up on the front of their chest as possible. Do both right and left sides for this position.

Upright Back

Place your baby upright, resting over your shoulder or on a pillow on your lap leaning forwards. Pat as high up on the back of their chest as possible. Do both right and left sides for this position.

Front Bases

Place child on their back with head and shoulders slightly raised (use folded nappy if needed). Make sure you pat with a cupped hand over the nipple area at the top of the chest.

Back Bases

Place child on their tummy lying flat or head slightly up (use folded nappy if needed). Make sure you pat with a cupped hand on their back over the ribs.

Left Middle

Place your baby on their right side either flat or with head slightly raised. Make sure you pat under the armpit and not too low down on their side. It helps to hold their arm forwards, out of the way of your hand.

Right Middle

Place your baby on their left side either flat or with head slightly raised. Make sure you pat under the armpit and not too low down on their side. It helps to hold their arm forwards, out of the way of your hand.

Things to Remember

It is important to establish a daily routine for airway clearance as soon as your baby is diagnosed with CF, as this will make it easier to continue treatments as they get older.

The type of treatment, number of sessions and length of treatment will vary for each individual, so make sure you discuss your options with your CF specialist physiotherapist.

Useful Resources

- [CFWA Airway Clearance Factsheets](#)

Cystic Fibrosis WA
The Niche
11 Aberdare Road
Nedlands WA 6009

T: +61 8 6457 7333
F: +61 6457 7344
E: admin@cfwa.org.au

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