



Airway Clearance Techniques:  
School age and teenager years

**Your child's CF physiotherapist will help create an individualized physiotherapy program for your child. As your child grows their physiotherapy program will change to suit their needs. If you have any questions talk to your child's CF physiotherapist.**

By the time your child attends school we would hope that they are more independent with some forms of chest physiotherapy with your supervision. There are other techniques and devices that can be used that you may not have used before with your child. The use of inhalers and nebulizers can be introduced alongside chest physiotherapy to help with airway clearance.

### **Autogenic Drainage**

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

### **Positive Expiratory Pressure (PEP)**

PEP devices provide resistance to the breath out to splint open airways and get air pressure behind mucous plugs and improve movement of mucous so that it can be easily cleared. There are many different PEP devices including Mouthpiece PEP, PEP mask, vibrating PEP and bottle PEP.

### **Active Cycle Breathing Technique (ACBT)**

ACBT combines deep breathing, relaxed breathing and huffing and coughing to help clear mucous from the lungs.

### **Exercise**

Exercise should be a vital activity in your child's life and should be incorporated into their daily routine. Parents and siblings should be encouraged to participate to normalise the activity. Exercise is not only important for lung health and aerobic fitness but also creates strong bones and good posture. Structured team sports for teenagers helps with compliance and is usually a fun form of exercise.

### **Challenges**

Adherence to treatment in CF often decreases as children get older, particularly in adolescence. Barriers to treatment and chest physiotherapy may include time management, seeking independence, complex regimens, decreased parental supervision, stigma and the reluctance to disclose the CF diagnosis to friends or family.

Distractions such as school, study, friends and social outings also impact on the adolescent's adherence. Communication is crucial in allowing teenagers to understand CF and the importance of their treatment regimens. CF education is important in allowing them to take control of their treatment. Guidance from parents and support from the CF team is crucial during this time of change.

## Notes

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## References

An introduction to Cystic Fibrosis for Parents and Families. (2017)

Bishay, L.C., & Sawicki, G.C. (2016). Strategies to optimize treatment adherence in adolescent patients with cystic fibrosis. *Adolescent Health, Medicine and Therapeutics*, 7, 117-124. doi: [10.2147/AHMT.S95637](https://doi.org/10.2147/AHMT.S95637)

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