

Exercise

An active lifestyle is extremely important for the cystic fibrosis (CF) population, with benefits including increased lung function and overall quality of life. People with CF who keep fitter are shown to cope better with the impact of CF, have fewer infections and generally have healthier lives.

Benefits of Exercise

- Assist with airway clearance by helping to clear mucus from the lungs, slowing the rate of decline in lung function
- Preserve muscle strength and function
- Increase body mass
- Improve appetite
- Improve the ability to perform activities such as cleaning and shopping etc.
- Increase bone density and improve posture
- Improve exercise capacity, making it easier to keep active

The benefits are not only physical, with improvements often seen in self-esteem and emotional wellbeing as well as decreased anxiety and depression, all of which affect adherence with other treatments.

Exercise does not replace daily airway clearance; both should be used together. Huffing should be included when exercising to maximise the benefits of airway clearance. Exercise may lead to coughing, so it is important to have rests when needed.



Types of Exercise and their Benefits

Aerobic Training

Involves exercises that raise the heart rate, through repetitive movement of large muscle groups, and can be either weight bearing (walking or hiking) or non-weight bearing (biking or swimming). This type of exercise is particularly beneficial as it helps to clear mucus from the airways. Regular aerobic training helps make everyday life easier, by improving overall endurance for carrying out day to day tasks.

Resistance Training

Increases the power and tone of muscles and builds bone density. It can be done using free weights, your own body weight (plyometrics) or with elastic resistance. Many people with CF have low bone mineral density, predisposing them to fractures. Weight training is

particularly beneficial in increasing bone strength and preventing osteoporosis and fractures. It can also be beneficial in increasing chest mobility and strength, which helps clear mucus from the airways, as well as making everyday tasks easier.

Flexibility and Core Strengthening

Helps to lengthen muscles and tendons and include stretching, yoga and pilates. Keeping the spine, ribcage and shoulders flexible assists with breathing and maintaining good posture, as well as helping preserve full movement of the joints and muscles around this area.

Exercising Safely

Exercise programs should always be discussed with the CF team. Some things to consider are:

Weight Loss

Aerobic exercise burns more calories, so calorie intake may need to be adjusted to avoid losing weight.

Continence

Exercise puts more strain on pelvic floor muscles, so some exercises may need to be modified or avoided to ensure they are pelvic floor safe.

Oxygen

Some people may benefit from using oxygen when they exercise as this can allow longer exercise at a higher intensity. The CF physio may recommend checking oxygen levels while exercising to make sure they are in the safe range.

Injuries

People with CF may be more prone to injuries if they have joint or bone issues. Their CF physio can provide advice on this issue.

CF Related Diabetes (CFRD)

People with CFRD will need to monitor blood sugar levels when exercising.

Dehydration

To avoid dehydration people with CF should increase intake of fluids before, during and after exercise. They may also need to increase dietary salt, have a sports drink (e.g. Hydralyte) or take salt supplements.

Nutrition Considerations

Most people with CF have higher energy needs than people who do not have CF. Added to this, regular exercise can increase energy needs further, so it is important people with CF discuss training schedules with a CF dietitian so that a suitable diet can be planned to avoid weight loss, keep hydrated and aid recovery.

Useful Resources

- [CFFit](#)
- [Pelvic Floor First](#)
- [Sports Nutrition and CF Factsheet \(NEMO\)](#)
- [CFWA Factsheets](#)

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