

Obesity and Cystic Fibrosis: Patient Information

Katherine Kutney MD, Amir Moheet MBBS

Introduction:

People with cystic fibrosis (CF) have long been encouraged from a young age to eat high fat, high calorie foods to improve their nutrition. It was considered important to maintain an adequate weight for improved lung function and overall health for people with CF. Over the past few years, people with CF have become healthier due to improved care, better understanding of CF, and the CF modulators that have been developed. However, as a result, the older nutritional guidelines for people with CF may not be suitable for healthier individuals who are gaining excess weight. Overweight and obesity are terms used to describe excess body weight. Some people prefer to use the term “high body mass index” to refer to either overweight or obesity.

Definition of Overweight and Obesity:

Body Mass Index is calculated using someone’s height and weight as follows and is calculated by your care team at each visit:

$$\text{BMI} = \text{weight} / \text{height}^2$$

Normal, overweight and obese BMI ranges vary depending on someone’s age and sex as described below:

| | Goal for people without CF | Goal for people with CF | Overweight | Obese |
|--------------------|----------------------------|-------------------------|---------------------------|-----------------------|
| Adult men | 18.5-25 kg/m ² | >23 kg/m ² | 25-29.9 kg/m ² | ≥30 kg/m ² |
| Adult women | 18.5-25 kg/m ² | >22 kg/m ² | 25-29.9 kg/m ² | ≥30 kg/m ² |
| Children | 5-85% | >50% | 85-94.9% | >95% |

Is overweight or obesity harmful to people with CF?

Doctors do not know a lot yet about overweight and obesity in people with CF. In people who do not have CF, obesity is related to increased risk for many health problems including diabetes, high cholesterol, high blood pressure, and higher risk of some cancers. People with CF do seem to show some of these health issues when they are overweight or obese, but it may not impact them the same way and may impact different people differently. It is best to ask your doctor what they think is the healthiest weight for you.

What is the impact of high BMI on lung function?

In general, people with CF who have higher BMI tend to have higher lung function, but there does not seem to be much additional benefit to the lungs from having a BMI in the obese range. Having a very high BMI may be harmful to lung function.

What to do if you are concerned about overweight or obesity:

If you are concerned about your weight being too high or increasing too quickly, talk to your care team about your concerns. They will look at the whole picture regarding your health and work with you to decide if you should try to stop gaining weight or even lose some weight. You should be closely monitored by your care team when making these changes to ensure losing weight does not harm your lung function.

Treatment:

- The main treatment for overweight or obesity is lowering the amount of calories someone eats each day.
- Increasing physical activity can help with weight management and increase lean body mass (muscle and bone).

- Medications are not typically recommended for weight loss in people with CF, but you can discuss this with your doctor.

For More Information:

<https://cysticfibrosisnewstoday.com/news/nacfc2021-trikafta-increases-risk-obesity-related-health-problems/>

https://www.ecfs.eu/sites/default/files/cf-research-article-files/JCF-D-19-00243R2_FINAL_Harindhanavudhi_081119.pdf

<https://www.cff.org/community-posts/2020-11/how-i-found-acceptance-my-trikafta-weight-gain>