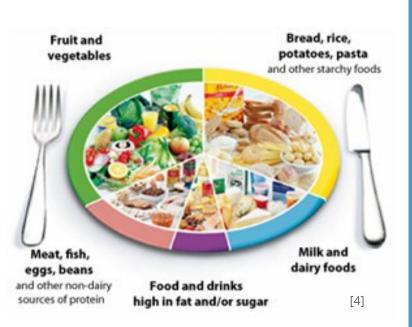
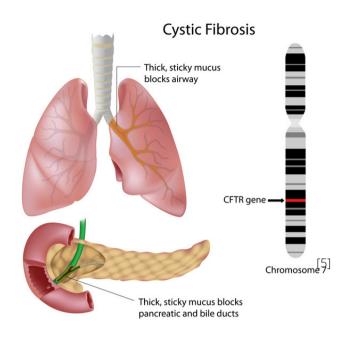


ABOUT CYSTIC FIBROSIS

- Cystic fibrosis (CF) is a recessive genetic disorder where one copy of the CF gene is inherited from each parent. CF is a mutation in the CF gene on chromosome 7 encoded by a protein called the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR). [1]
- A buildup of abnormally thick, sticky mucus that is characteristic of CF can ultimately damage various organs in the body. [6] Clogged airways are often one complication that results in severe breathing problems and bacterial infections in the lungs. [6]
- Most individuals with CF also experience digestive problems, sometimes beginning at birth.





WHAT ARE MODULATORS?

 Modulators are a class of drugs that help with intracellular processing, improve production, and/or function of the defective CFTR protein. [2]

NUTRITONAL GUIDELINES

- The aim of nutritional guidelines is to address poor nutrition and slow growth often associated with trouble with gaining weight, and abnormal bowel movements.
 [10]
- Enzyme supplementation may be indicated if pancreatic insufficiency is present. [10]

NUTRITONAL STATUS

 Lifestyle modification and an individualized plan should be considered.
 If weight loss is the goal, a low calorie, low fat diet may be introduced. Consider adapting to new lifestyle. [11]



NUTRITION SUPPORT TIPS • Good nutrition especially in children that

- Good nutrition especially in children that have CF is important to promote optimal growth and weight gain. [4]
- Proper nourishment and modifying lifestyle behaviors are also important to consider for an individual with CF. [11]
- In general children with CF require a diet higher in calories than other children their own age. [4]
- Adults also require proper nutrition to be more resistant to infections and improve general health. [11]
- Before consuming any citrus fruits talk to your healthcare provider for any drug and nutrition interactions. [8]





SNACK IDEAS

Modify or fortify family meals by providing snacks or high calorie drinks (smoothies). [4]

- Adding butter to meals [4]
- Use full fat dairy products [4]
- Add grated cheese on top of meals [4]
- Carrots and hummus [3]
- Pretzels or chips [3]
- Dried fruit [3]
- Fig bars [3]
- Granola bars [3]
- Trail mix [3]

ADDITIONAL RESOURCES

- Recipes for Kids with Cystic Fibrosis.
 https://kidshealth.org/en/parents/about-cf-recipes.html
- Cystic Fibrosis Foundation. Healthy-High-Calorie Eating. https://www.cff.org/managing-cf/healthy-high-calorie-eating
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