When your body does not get the right balance of energy and nutrients that it needs, you may become malnourished. Malnutrition is in this case considered undernutrition. Malnutrition threatens your health and your ability to fight sickness and injuries.

**KNOW THE WARNING SIGNS**

Malnutrition is not always easy to see, so it is important to keep an eye out for possible signs that you may be malnourished. The major signs of malnutrition include:

- Sudden unexpected weight loss
- Loss of appetite
- Muscle weakness
- Frequent nausea, vomiting, or diarrhea
- Slow-healing wounds
- Feeling tired or fatigued
- Swelling in your ankles, legs, or belly
- Getting sick often

**WHY IT MATTERS**

Malnutrition is a serious issue that can have dangerous consequences on your well-being. The effects of malnutrition in COPD patients include:

- Loss of weight and muscle
- Higher death risk
- Higher stress levels
- Higher risk of bone fractures
- Higher risk of infections
- Longer and more frequent hospital stays
- Less independence
- Higher healthcare costs

Malnutrition is common among COPD patients, due to increased energy needs and low food intake, and perhaps due to trouble breathing. Being underweight and having weight loss in COPD patients has been associated with poorer health outcomes, including higher death risk, and reduced breathing muscle and ability to fight infection.
WHAT CAN YOU DO? TIPS FOR GOOD NUTRITION

Signs of malnutrition often go unnoticed, so it is important for you to be able to look out for your health and prevent malnutrition. The strategies that might work best for you will depend on many individual factors, including your age, lung function, and energy expenditure. Speak with your healthcare provider before making any changes.

- **Eat a healthy, balanced diet** that includes fruits, vegetables, whole grains, dairy, and protein.
- **To make foods easier to chew**, try cooking vegetables until soft, mincing or grinding meat, and adding sauce or gravy to your meals.
- **Build muscle by lifting weights**, using resistance bands, or doing body-weight exercises like squats or push-ups.
- **If you have a low appetite**, try eating 3-6 smaller meals a day, instead of 3 large ones. Eat foods that are high in protein and calories. Examples of protein-rich foods include chicken, fish, meat, beans, yogurt, and eggs.
- **If you experience shortness of breath**, try to rest 30 minutes before meals. While eating, sit upright and lean forward, with your elbows on the table and your feet on the floor. This will help to expand your lungs.

**Find an oral nutrition supplement** that you might like. Oral nutrition supplements are an easy way to get in the **calories, protein, and essential nutrients** that your body needs. Look for oral nutrition supplements that provide at least **150 calories and 15-30 grams of protein per 8 ounces**. Oral nutrition supplements can be purchased at the grocery store, pharmacy, or ordered online from various manufacturers.

You can also prepare your own shake or smoothie. The following is an example of such a recipe that is high in calories and protein.

**Creamy Peach Smoothie**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Amount</th>
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<tbody>
<tr>
<td>1 Cup vanilla ice cream</td>
<td></td>
</tr>
<tr>
<td>½ Cup whole milk</td>
<td></td>
</tr>
<tr>
<td>1 Peach</td>
<td></td>
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</tbody>
</table>

Calories: 435  
Protein: 11 g  
Carbohydrates: 51 g

If you think you might be malnourished, speak with your healthcare provider. They can perform a nutrition screening and provide suggestions to help you as needed.

FOR MORE INFORMATION

Learn more about malnutrition and what you can do to fight it by visiting the ASPEN Malnutrition Solution Center at nutritioncare.org/malnutrition.

For more tips on healthy eating for COPD patients, visit the COPD Foundation website at www.copdfoundation.org and see their page titled “Nutrition for Someone with COPD.”