



Serving North Florida Since 1979. Licensed as a not-for-profit hospice since 1980.

Nutrition Nuggets

Provided by Verna Groger, Registered Dietitian, Haven Hospice

Nutritional Care for COPD

Most adults with Chronic Obstructive Pulmonary Disorder (COPD) have some degree of both chronic bronchitis and emphysema. Airflow obstruction due to excess mucus causes shortness of breath and chronic cough. A highly nutritious diet increases immune response and can result in less infections and improved quality of life.

Individuals with COPD require a diet of additional energy and protein because the lungs and heart must work harder to carry oxygen to all parts of the body. Their diaphragm and other pulmonary (lung) muscles can require up to ten times the calories during breathing than a healthy person uses.

As a result, COPD patients have 15 to 25 percent higher energy usage at rest due to their increased cost of breathing. They use more calories in daily activities because of the extra workload on muscles used for breathing.

At the same time, many COPD sufferers have difficulty eating enough calories daily since for them, breathing and eating can become competitive activities. Shortness of breath makes it extremely difficult for a COPD patient to complete a meal. It's important for those who use oxygen to wear their nasal cannula (nose breathing tube) during and after meals, as eating and digestion require additional oxygen.

Good Nutrition Strengthens

The diaphragm is a muscle that sits below the lungs and it helps pull air in and out of the lungs. When the diaphragm is weakened, breathing becomes more difficult and the individual tires more easily.

Respiratory infections are common among those with COPD and an inadequate diet—especially in regard to calorie and protein intake—increases the risk. Infections are a double-edged sword in that they significantly increase caloric and nutrient requirements during a time when a patient's appetite is often decreased. Also, inflammatory hormones are present in increased amounts in COPD and infection increases their activity. This promotes tissue breakdown in the diaphragm and other pulmonary muscles.

To minimize the occurrence of chest infections, a nutritionally dense diet is essential. Your immune system can be strengthened or weakened, depending on what you eat. COPD patients should avoid all foods that do not supply significant amounts of nutrients along with calories such as sodas, chips, and other forms of junk food.

Large meals can contribute to shortness of breath, so three small meals plus three snacks a day are recommended. High protein shakes and smoothies can be very helpful for getting in adequate protein and calories. The inclusion of fruit will provide essential vitamins, minerals, and antioxidants from produce.

Berries in particular contain powerful, disease-fighting antioxidants that can aid in strengthening the immune system. Blending in a handful of frozen blueberries, raspberries, or strawberries makes an instant breakfast shake or a smoothie not only delicious, but also much more nutritious.

It's important to remain upright after meals to prevent the stomach from pushing up against the diaphragm as this will increase difficulty breathing. Avoid carbonated beverages to prevent bloating that also impedes movement of the diaphragm.

Safely Hydrated

Drinking plenty of fluids keeps the mucus thin and easier to cough up. This is also important for those on oxygen therapy to prevent drying of the respiratory membranes.

A general guideline for how much water to take in during a day is to drink half your body weight in pounds, in ounces of water daily. Therefore, a 160 lb man would drink 80 ounces of water a day, or a little less than 3 quarts. Some people find it easier to fill a container with their daily fluid requirement in the morning and drink it over the course of the day.



Excess sodium can cause fluid retention in the body tissues and this can make breathing more labored. All foods that have more than 300 mg sodium per serving should be avoided. Salt substitutes are not always safe as some ingredients in them may be just as harmful as sodium.

Proper Body Weight

People with COPD tend to be underweight, but some are overweight. Excess body weight increases the workload on the heart and lungs. This can reduce oxygen supply to body tissues which in turn compromises health further.

Excess abdominal fat also crowds the diaphragm and can prevent full expansion of the lungs. Obese patients should strive to gradually reduce weight.

Daily Nourishment

COPD patients frequently struggle with the frightening reality of dyspnea, or insufficient airflow. Proper nutrition and weight management can reduce these symptoms while improving overall management of the disease and life expectancy.

Focus on getting in adequate protein from both animal (meat, dairy, and eggs – 6 oz daily) and plant sources (beans, nuts, and seeds – at least three servings). At least two servings of dairy products are recommended to provide sufficient calcium. Additionally, a minimum of three servings of whole grains and eight to ten servings of fruits and vegetables are advised for optimal nutrition.