



## Respiratory Health and Nutrition

Most people are surprised to learn that the food they eat may affect their breathing. The right mix of nutrients in your diet can help you breathe easier.

### How Does Food Relate to Breathing?

The process of changing food to fuel in the body is called metabolism. Oxygen and food are the raw materials of the process, and energy and carbon dioxide are the finished products. Carbon dioxide is a waste product that we exhale.

Metabolism of carbohydrates produces the most carbon dioxide for the amount of oxygen used; metabolism of fat produces the least. For some people with COPD, eating a diet with fewer carbohydrates and more fat helps them breathe easier. Check with your doctor if this is something you should consider.

### What to Eat or Not to Eat a lot of?

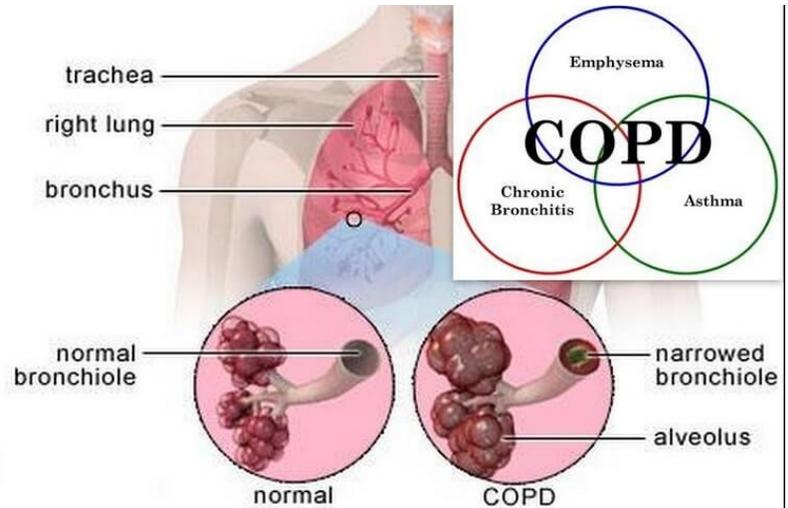


The “**Western**” dietary pattern, eating lots of refined grains (white breads and flours), processed and red meats, desserts and sweets, French fries, and high-fat dairy products has been linked to an increased frequency of asthma flare-ups and risk of COPD.

On the other hand—The **Mediterranean** diet has been found to have protective effects for respiratory diseases in population studies. Evidence suggest that eating a lot of fruit and vegetables is best for all life stages of asthma and the same in COPD. Likewise, some studies show benefits of improved lung function when the diet

includes foods high in omega-3 polyunsaturated fats such as certain fish, fish oils, vegetable oils, and/or supplements.

The majority of your meals would include fruit, vegetables, whole grains, nuts like almonds, walnuts, and peanut butter, fresh or water-packed tuna, trout, salmon, mackerel, sardines, and herring, limiting red meats and choosing lean types, avoiding sausage, bacon and other high-fat meats, choosing low-fat dairy products not whole fat, and using mostly oils like olive and canola and limiting butter, lard, and other saturated fats.





Antioxidants may also have a positive effect on respiratory health. These include vitamin C, vitamin E, flavonoids and carotenoids which are in fruits and vegetables, as well as nuts, vegetable oils, cocoa, red wine and green tea. The antioxidant lycopene, present mostly in tomatoes, has been shown to reduce inflammation from white blood cells in the airways.

Protein is very important for people with COPD patients. It produces antibodies that fight infection. Lack of protein can reduce the lungs' ability to fight infections. **Eat a good source of protein** at least twice a day including milk, eggs, cheese, meat, fish, poultry, nuts and dried beans or peas. Again, choose low-fat sources of protein such as lean meats and low-fat dairy products. If you need to gain weight, you may need to eat protein with a higher fat content, such as whole milk, whole milk cheese and yogurt.

As far as salt and sodium, too much sodium may cause edema (swelling) that may increase blood pressure. If edema or high blood pressure are health problems for you, talk with your doctor about how much sodium you should be eating each day. For most people the recommended intake is 2400 mg a day. This would mean eating less processed foods that have added sodium such as deli meats and cheeses, canned soups, veggies, sauces, boxed grain mixes, and frozen dinners, and most restaurant and fast food meals.

Drinking plenty of water is important to be hydrated as well as to help keep mucus thin for easier removal. A good goal for many people is 6 to 8 glasses (8 fluid ounces each) daily. Besides water there are sodas and seltzers (diet?), dairy milk, soy and nut milks, juices, coffee and tea, but not alcohol. Fruits and veggies also have a lot of water in them too.



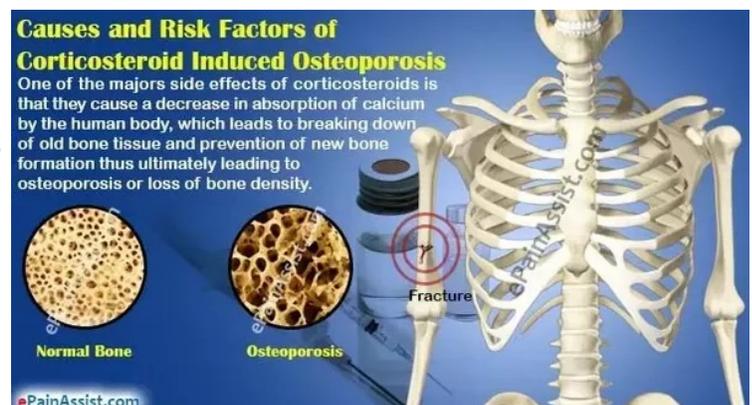
### **Milk does not create more mucus**

A lot of people think that drinking cow's milk makes extra mucus in their nose, throat and lungs. This is not the case. The fats in milk can leave a soft, filmy coating in your throat and mouth and this may make you feel like you have extra mucus in your throat.

### **Drug Side-effects**

Often, people with COPD take steroids. Long-term use of steroids may increase your need for calcium as these drugs can speed up the loss of calcium in both men and women. They affect hormones that control the deposit of calcium into the bone. Osteoporosis can occur. Discuss this with your doctor.

Some of the medicines taken by COPD patients have been linked to low phosphorus levels. Phosphorus helps in the building and repairing of tissues and bone. The drug can cause large amounts of phosphorus to be released from the kidneys. Most people get what they need from eating meat, poultry, eggs, and dairy products. Check with your doctor.

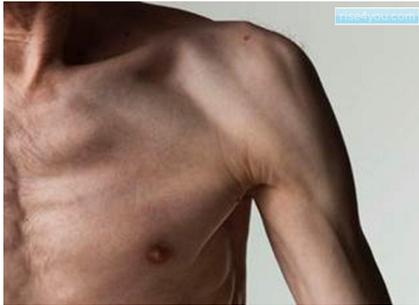


Potassium is very important for the heart muscle. High or low levels of potassium can cause an irregular heartbeat. Some diuretics cause the kidneys to release large amounts of potassium from the body. If you are taking diuretics, your doctor will check your potassium levels and advise you on what to do. Good sources of potassium include: milk, yogurt, winter squash, tomatoes, apricots, cantaloupe, bananas, oranges, prunes, carrots, potatoes, raisins, spinach and dates.

## Special Dietary Concerns for People with COPD

### If You Weigh More Than You Should?

Being overweight can make lung disease symptoms worse such as not being able to expand your chest as well as you should. This will affect your breathing and increases the risk of developing other medical problems. Increased weight also adds to your body's oxygen demands. Try to lose weight gradually by eating fewer foods and becoming more active. Get advice from your doctor or health care provider as to the best way to do this.

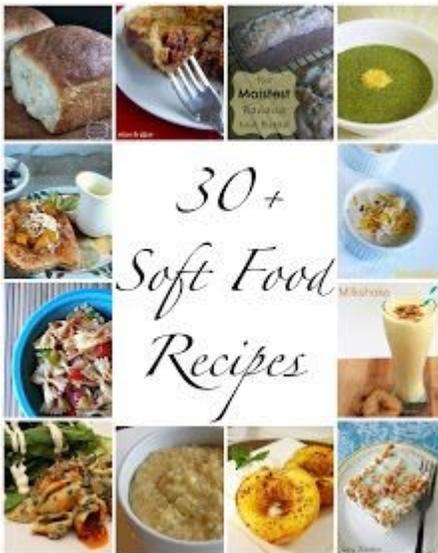


### Unplanned Weight Loss

Being underweight is a serious health problem for a person with COPD or anyone experiencing undesired weight loss. People with COPD need more energy just to breathe. A person with COPD needs between 430 and 720 calories a day just to do the work of breathing. Unplanned weight loss affects as many as 40 to 70 percent of COPD patients.

The cycle starts with the muscles used to breathe are weakened. This causes shortness of breath, which causes a decrease in appetite and more weight loss. If you are underweight, you will need to increase the number of calories you eat on a daily basis.

Chewing and swallowing can also add to the feeling of shortness of breath. Feeling bloated from swallowing air and not getting enough exercise can make one feel like not eating. Some drug side effects can also cause loss of appetite. Get advice from your doctor or health care provider as to the best way to gain weight and the possible need for a nutritional supplement.



Anyone experiences weakness or just tired may get some help by making foods easier to chew:

- Cook vegetables until they are soft.
- Mince or grind up meats.
- Dip breads in liquids.
- Eat pasta, mashed potatoes, thick soups, creamed soups, casseroles.
- Try fruit smoothies, milk shakes and eggnog.

To improve your appetite:

- Rest before a meal.
  - Make meal time as pleasant as possible.
  - Do not talk about stressful topics at the table.
  - Eat earlier in the day if you find you are usually tired by dinner time.
- Eat snacks throughout the day.
  - When you know you should eat but are not hungry, eat some of your favorite foods.
  - If drinking liquids with the meal fills you up, save it for an hour later but be sure to drink what you should throughout the day.

**If you need help with food shopping, meal preparation, or other chores, be sure to ask for help by contacting the New York Connects or Schenectady Senior and Long Term Care Services.**

## Some Basic Pointers to Soothe Your Cold Besides Chicken Soup



**1: Drink Up!** Get plenty of fluids. It helps break up congestion, makes your throat moist, and keeps you from getting dehydrated.

**2: Make It Steamy!** You can loosen up a stuffy nose if you breathe in some steam. Hold your head over a pot of boiling water and breathe slowly through your nose. Put a humidifier in your bedroom or add moisture from a hot shower.

**No. 3: Blow Your Nose** It is better than sniffing mucus back into your head. Press a finger over one nostril while you blow gently to clear the other.

**No. 4: Use Saline Spray or Salt-Water Rinse** Mix 3 teaspoons of iodide-free salt and 1 teaspoon baking soda. Place in an airtight container. Add 1 teaspoon of this mixture to 8 ounces of lukewarm boiled or distilled water. Next, fill a bulb syringe with this solution (or use a Neti pot as shown).



**No. 5: Stay Warm and Rested** It helps your body direct its energy to fighting off your infection.

**No. 6: Gargle With Warm Salt Water** Try a half teaspoon of salt dissolved in 8 ounces warm water four times a day. To calm the tickle in your throat, try a gargle made from tea. Or use one that's got honey in it.

**No. 7: Drink Hot Liquids** Relieves congestion and soothes the inflamed lining of your nose and throat.

**No. 8: Use Mentholated Salve** Try a small dab under your nose. It opens up breathing passages. Menthol, eucalyptus, and camphor all have mild numbing ingredients that may help relieve the pain of a nose rubbed raw.

### Resources:

<http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/copd/living-with-copd/nutrition.html>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4377870/>

[https://www.webmd.com/cold-and-flu/cold-guide/cold\\_guide\\_treatment\\_care](https://www.webmd.com/cold-and-flu/cold-guide/cold_guide_treatment_care)

**Consumer-centered access for  
long-term care information,  
referrals and assessments.  
For information,  
call 382-8481, #9, ext.304**



### **Do you have a questions or concerns about what to eat?**

If you are participating in services offered by Schenectady County's Senior and Long Term Care services, you are eligible to have a free consultation with a Registered Dietitian.

Call Cornell Cooperative Extension, Schenectady County at 518-372-1622, ext. 269. Leave a message, if necessary, for dietitian to call you back.

### **Check out our website for nutrition resources:**

**<http://ccschenectady.org/nutrition-for-seniors>**

Schenectady County Department of Senior and Long Term Care Services denies no person services or access to service based upon race, color, sex, religion, national origin, marital status and/or handicapping conditions. Schenectady County Department of Senior and Long Term Care Services is primarily funded with County tax dollars. Supplemental funding is through the New York State Office for the Aging under Title III-B/D, III-C-1, III-C-2, III-F of the Federal Older Americans Act, and New York State Expanded In-Home Services for the Elderly (EISEP), Community Services for the Elderly Act (CSE), Congregate Services Initiative (CSI), and the Wellness In Nutrition (WIN).