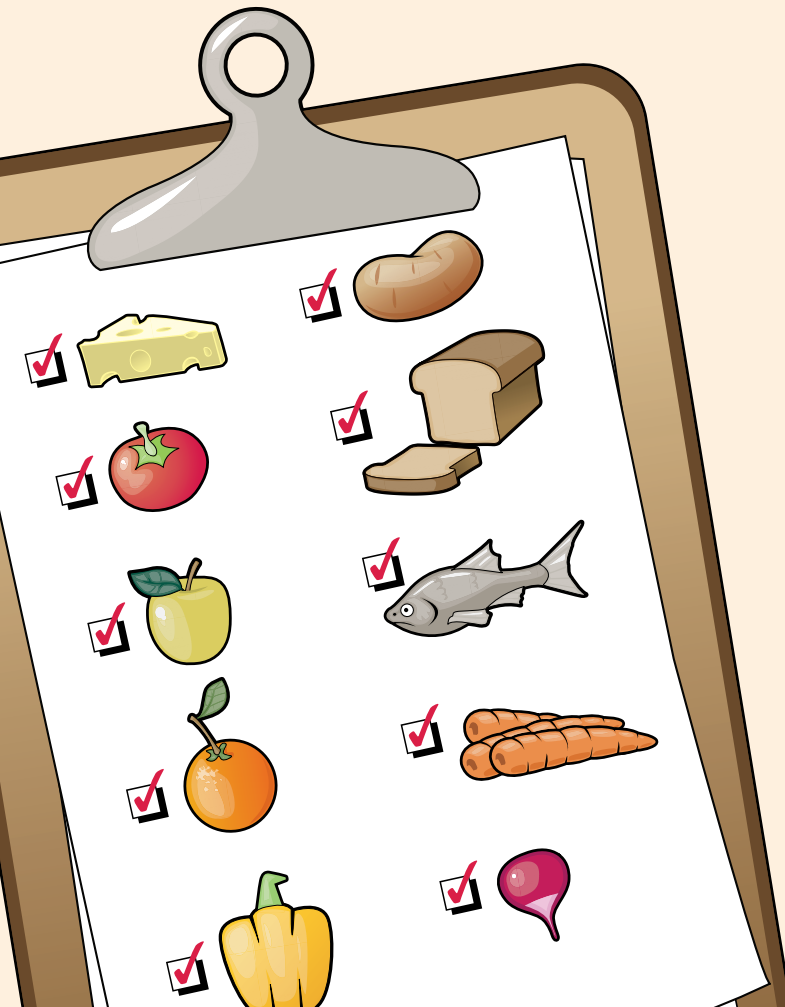


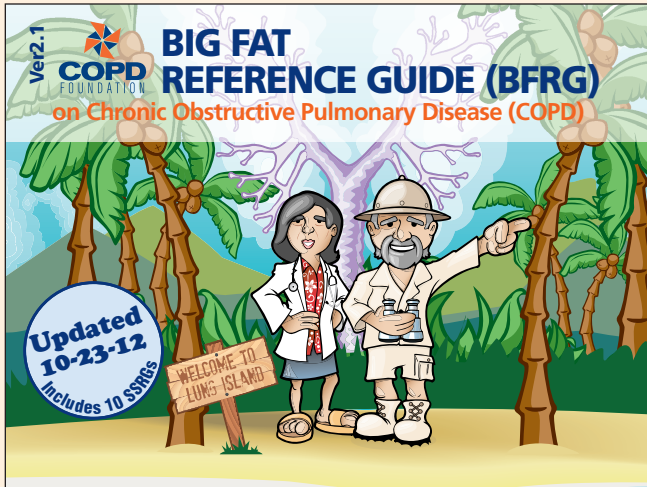
Nutrition Tips

COPD Foundation's

Slim Skinny Reference Guide® (SSRG)

Nutrition Tips for Someone with COPD





**This “Slim Skinny Reference Guide:
Nutritional Tips for Someone with COPD”
is part of the COPD \Foundation’s
Slim Skinny Reference Guide®
series which have been taken from the
COPD Big Fat Reference Guide®.**

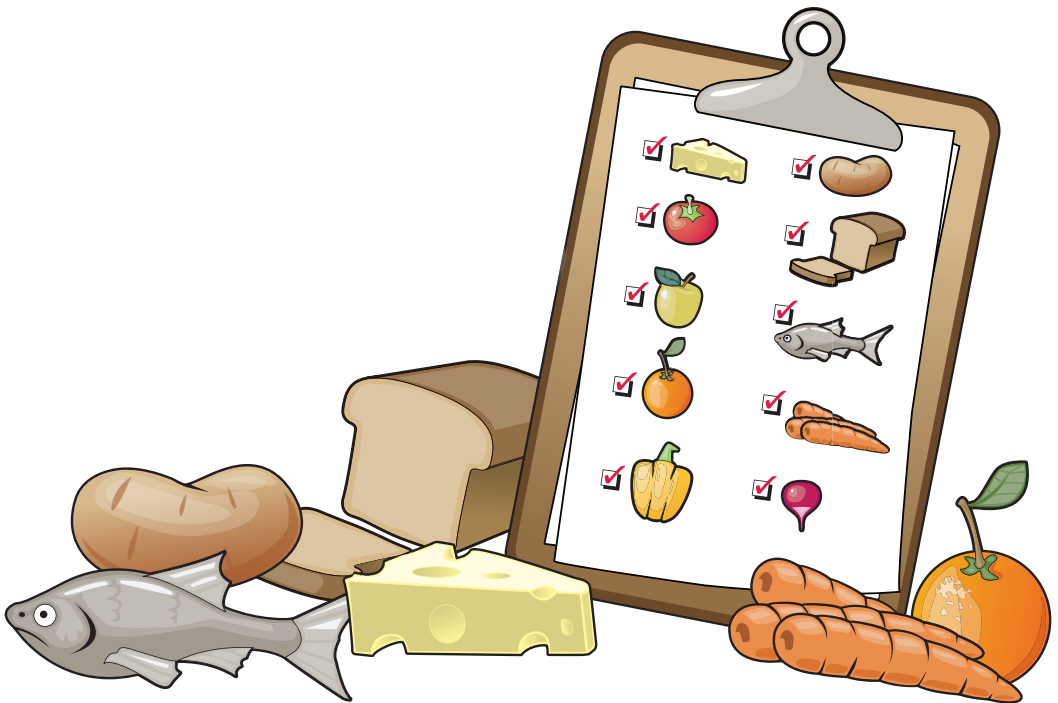
**To access the complete *COPD Big Fat
Reference Guide*®, visit www.copdbfrg.org.**

The mission of the COPD Foundation is to develop and support programs which improve the quality of life through research, education, early diagnosis, and enhanced therapy for persons whose lives are impacted by Chronic Obstructive Pulmonary Disease (COPD).

Nutrition Tips for Someone with COPD

What we eat affects our health. Our bodies require water and a source of energy (food) regularly.

We also need vitamins and minerals that cannot be created within our bodies. We find these in the plant and animal foods that we eat.



For someone with COPD* a healthy diet is especially important because:

- COPD patients need more energy to do the work of breathing.
- Unplanned weight loss from eating poorly can weaken the muscles used for breathing.

**COPD is an umbrella term used to describe the progressive lung diseases including: emphysema (em-fa-see-ma), chronic bronchitis (kron-ick-brawn-kie-tis), refractory (re-frac-ta-ree) asthma (az-ma) and some forms of bronchiectasis (brawn-key-eck-tay-sis). If you have COPD you have trouble moving air in and out of your lungs because of damage to the airways and/or the air sacs.*

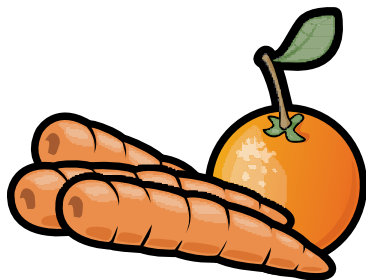
- A good diet can help prevent lung infections. (Lung infections can be very serious for COPD patients.)
- Eating poorly can make COPD symptoms worse. It can also decrease your ability to exercise.

What Is a Healthy Diet?

For everyone, eating well is a balance. We must make sure we eat enough of the vitamins and minerals our body needs. But we must also make sure we don't eat too much of some foods that may cause problems. Too much fat, too much salt, too much sugar and sometimes even too much of some vitamins and minerals can be unhealthy.

The United States Department of Agriculture (USDA) says a healthy diet is one that:

- Focuses on fruits, vegetables, whole grains, and fat-free or low-fat milk and milk foods.
- Includes lean meats, poultry (chicken and turkey), fish, beans, eggs and nuts.
- Is low in saturated fats, trans fats, **cholesterol** (koe-less-tur-all), salt and added sugars.



Grains, vegetables and fruits should make up most of our diet.

Calories are the fuel that helps our bodies work. Calories come from the grains, vegetables, fruits, proteins and fats that we eat. How many calories a person needs each day depends on many things. These include their age, their disease condition, how much they exercise and if they need to lose or gain weight. We can get the amount of calories and nutrients that our bodies need by following a simple rule: *Choose a food from each food group at each meal.* Each food group has nutrients that the other food groups do not have.

The USDA's recommends the following for each food group every day:

| Food Groups and Subgroups | USDA Suggested Amount |
|----------------------------------|--------------------------------|
| Fruit Group | 2 cups or 4 servings per day |
| Vegetable Group | 2.5 cups or 5 servings per day |
| · Dark green vegetables | (3 cups per week) |
| · Orange vegetables | (2 cups per week) |
| · Legumes (dry beans) | (3 cups per week) |
| · Starchy vegetables | (3 cups per week) |
| · Other vegetables | (6.5 cups per week) |
| Grain Group | 6 ounces per day |
| · Whole grains | (3 ounces per day) |
| · Other grains | (3 ounces per day) |
| Meats and Beans Group | 5.5 ounces per day |
| Milk Group | 3 cups per day |
| Oils | 27 grams or 6 tsp |
| Optional Calories | 267 calories per day |

For more information about recommendations for nutrition, please read the COPD Foundation's Big Fat Reference Guide®, Chapter 5. The COPD Big Fat Reference Guide® can be found at www.copdbfrg.org.

Special Dietary Concerns for People with COPD

Unplanned Weight Loss

Being underweight is a serious health problem for a person with COPD. Even mild COPD increases the chance of being underweight.

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. This is true even if he/she is not aware that they are working harder at breathing.

Did You Know?

Unplanned weight loss affects as much as 40 to 70 percent of COPD patients.

When the number of calories you are taking in is too low to meet your energy needs, your body breaks down fat and muscle. It does this for energy. This

causes muscles to become weak. This also causes weight loss. A bad cycle begins: the muscles used to breathe are weakened. This causes shortness of breath. This causes a decrease in appetite. This causes more weight loss. And the cycle continues.

If you are underweight, you will need to increase the number of calories you eat on a daily basis. To add more calories to your diet:

- Mix a teaspoon of butter, margarine or olive oil into hot foods.
- Eat mayonnaise instead of salad dressing.
- Use a lot of peanut butter.
- Use honey for sweetening and as a snack.
- Drink milkshakes made with high fat ice cream. Try adding protein power or egg substitutes for more protein and added calories.
- Keep high calorie snacks around: olives, walnuts, raw almonds and dried fruits.
- Add flaxseed oil or olive oil to cottage cheese with fruit.
- String cheese is easy. It is 80 calories per stick.

COPD Symptoms Cause Too Much Weight-Loss

The most common reason people with COPD lose weight is they lose their appetite. Some say they eat less because the food does not taste as good as it used to. Others say they get too tired to make meals. For some, chewing, swallowing and breathing all at the same time is just too much work. Chewing and swallowing adds to the feeling of shortness of breath. Feeling bloated from swallowing air and not getting enough exercise can make you feel like not eating. And sometimes medicine side effects cause loss of appetite. Drugs can also cause problems with absorbing nutrients from food.

To make foods easier to chew:

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

To improve your appetite:

- Make meal time as pleasant as possible. Add soft music and candlelight. (But only if you are not on oxygen.)
- Do not talk about stressful topics at the table.
- Eat many snacks throughout the day. Keep them handy.
- When you know you should eat but are not hungry, eat some of your favorite foods.

But What if You Weigh More Than You Should?

Being overweight can make your lung disease symptoms worse:

You may not be able to expand your chest as well as you should. This will affect your breathing.

Your chances of developing other medical problems increase.

Increased weight adds to your body's oxygen demands.

Try to lose weight gradually. Extreme dieting is unhealthy. Eat fewer calories. Become more active.

To find out more about what your ideal weight should be, visit the COPD Foundation's Big Fat Reference Guide[®], Chapter A-5, pages 7-9. You may also want to read Chapter A-6 and B-11. These chapters focus on exercise.

To decrease shortness of breath:

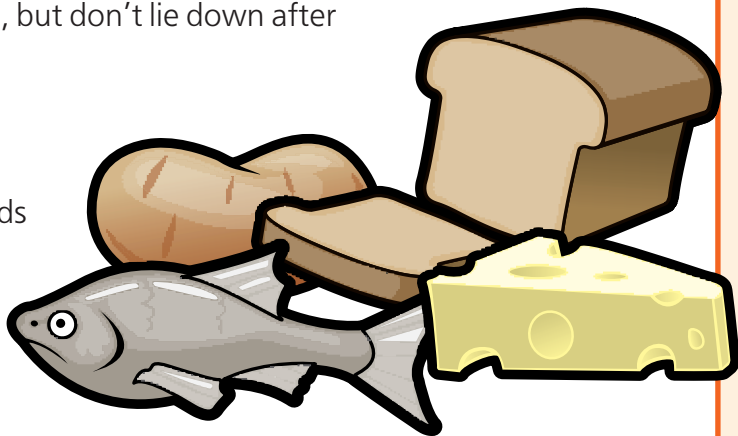
- Try to rest 30 minutes before meals.
- If you become short of breath, use pursed-lip and deep breathing.
- Sit upright and lean forward with your elbows on the table. Put your feet on the floor. This will give you the greatest expansion of the lungs.
- Eat foods that are easy to chew (see above).
- If you are on continuous oxygen, ask your doctor if you should increase your flow rate during meals.

(Do not increase your oxygen without talking with your doctor first).

- Relax before and after meals. Anxiety causes shortness of breath.

To reduce tiredness:

- Check out “Meals on Wheels” (www.mowaa.org). This service (or one like it) can provide you with a nutritious, low cost meal. This will keep you from having to prepare a meal.
- Eat 6 small meals instead of 3 big ones. Digestion requires energy. Energy requires oxygen. If you eat smaller meals you use less oxygen.
- Eat your larger meals earlier in the day.
- Rest before eating, but don’t lie down after meals.
- Use easy-to-make recipes.
- Ask family or friends to help with making meals.



- Don't think that eating more carbohydrates will give you more energy. Sweets, cookies, cakes and pies—simple carbohydrates—can cause you to hold in too much carbon dioxide. This can cause tiredness.

To reduce bloating:

- Try to not rush your meals.
- Do not eat when you are short of breath. This can cause you to swallow air. This will make the bloating worse.
- Eat several small meals.
- Drink fluids one hour before and one hour after a meal. This will decrease the amount of food in the stomach at one time.
- Avoid foods that cause gas and bloating. These may be onions, cabbage, sauerkraut, broccoli, Brussels sprouts and beer.
- Eat less fried, fatty foods. High-fat foods are digested slowly. They can cause a feeling of bloating.
- Lactose may cause bloating. It is found in milk, yogurt, cottage cheese and fat-free sherbets.
- Avoid being **constipated** (*con-sti-pay-ted*) by adding lots of fiber and fluid to your diet.

Important Dietary Guidelines for People with COPD

Protein

Protein is very important for COPD patients. It produces **antibodies** (*ant-tee-bodies*) that fight infection. Lack of protein can reduce the lungs' ability to fight infections in people with COPD.

The main sources of protein are meat, fish, eggs, poultry, legumes and dairy products.

To Get More Protein in Your Diet

- Add skim milk powder to hot milk, cereal, eggs, soups, casseroles, gravies and ground meat dishes. This will add extra protein and calcium to your diet.
- Add chopped, high protein poultry, meats, cheese or legumes to soups and casseroles and vegetables. Nuts also can be added.
- Blend finely chopped hard-boiled egg or egg substitute into a sauce, gravy or soup.
- Include high protein snacks such as pasteurized eggnog, instant breakfast and puddings in your diet.
- Have peanut butter, bean dips, nuts, cottage cheese or other cheese with snacks to add additional protein and calories.
- Try using double strength milk (add 1 cup powdered milk to 1 quart whole milk).

Fluids

Drinking enough fluids is very important for people with COPD. It helps thin out and clear out lung secretions. Oxygen therapy can be very drying. Fluids keep you hydrated. People with COPD should drink 8 to 12 cups of caffeine-free liquids per day. Water may be the best fluid to choose. It prevents constipation. Fruit juices, decaffeinated coffee and tea are also good choices. Milk is also a good fluid choice. It provides needed nutrients.

Sodium or “salt”

Too much salt in your diet can cause you to retain fluids. It can also increase your blood pressure and shortness of breath. Your doctor may ask you to reduce the amount of salt you eat.

Calcium (cal-see-um)

Calcium helps with lung function, muscle contraction and blood clotting. It works with **magnesium** (*mag-knee-zee-um*).



Calcium also plays an important role in making our bones strong, helping the immune system and transporting nerve impulses.

Many people with COPD take **corticosteroid** (*kort-te-coe-stair-royd*) drugs. 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** (*ah-stee-oh-pah-row-sis*), a condition of weak bones, can occur. Corticosteroids are only

To Reduce Sodium or Salt in Your Diet:

- Do not use added salt while making food or for food served at the table.
- Read labels and ingredients on all foods. Avoid those that contain salt.
- Read the sodium content on the labels. Look for products having less than 140 mg sodium per serving or labeled “low sodium.”
- Avoid those foods that have more than 140 mg of sodium per serving.

These include:

- Cured smoked and canned meats, bologna, frankfurters, ham and salami
- Regular canned vegetables, soups and vegetable juices
- Salted snacks (nuts, pretzels, chips)
- Regular frozen meals
- Foods in brine (pickles, olives, sauerkraut, feta cheese)
- Regular processed cheeses
- Seasoned salt, meat tenderizer, MSG, soy sauce, barbeque sauce

needed for short periods of time in COPD patients. But you should talk with your doctor about the risk of osteoporosis and your calcium and Vitamin D intake.

Dairy products are the main source of calcium. People who cannot eat dairy must choose their foods carefully to make sure they get enough calcium. Calcium is not easily absorbed. And just because a food has calcium does not mean your body can absorb the calcium. Vitamin D is important for calcium to be absorbed. So your diet

must include good sources of Vitamin D. Adults up to age 50 should have 200 international units (IU) or 5mcg of calcium per day. Adults 51 to 70 should have 400 IU or 10 mcg of calcium daily. Two cups of milk can satisfy the daily adult need for calcium.

Magnesium

Magnesium (*mag-knee-zee-um*) is the “fuel” that makes muscles work. It is also an important mineral that is involved in blood clotting, muscle contraction and protein production. Magnesium also works with calcium to help control the activity of the **bronchial** (*brawn-key-el*) tubes (airways in the lungs). A low level of magnesium weakens the muscles. This is true for the breathing muscles. So people with COPD should eat foods rich in magnesium. The average American only eats three-fourths of the recommended amount of magnesium. The recommended amounts for people between 19 and 30 are: 400 mg daily for men, 310 mg for women. For those older than 31: 420 mg daily for men, 320 mg for women.

Magnesium is found in the chlorophyll or green pigment of plants. Dark green vegetables are rich natural sources of magnesium. Magnesium may also be found in whole grains, beans, peas, lentils, tofu and some seafood. Chocolate contains some. Foods made from refined flours (like white bread) have 80 percent less magnesium than whole grain flours.

Phosphorus

Phosphorus (*foss-for-us*) plays a role in all living cells. It helps in the building and repairing of tissues. And it plays a role in the formation of bone. Adults should have 700 mg of phosphorus each day. Most people get this amount by eating meat, poultry, eggs and milk products. A lack of enough phosphorus is rare in healthy adults. But people with COPD are at risk for not having enough phosphorus. The low levels are likely caused by drug side effects. Some of the medicines taken by COPD patients have been linked to low phosphorus levels. The drugs can cause large amounts of phosphorus to be released from the kidneys. A poor diet can also cause low phosphorus levels.

Talk with your doctor about your phosphorous levels. Phosphorous is not measured in routine blood work. Having enough phosphorous is important for lung function.

Potassium

Potassium (*poe-taa-see-um*) is required for muscle contractions. It is very important for the heart muscle. High or low levels of potassium can cause an irregular heartbeat.

Some **diuretics** (*die-you-reh-ticks*) cause the kidneys to release large amounts of potassium from the body. If you are taking diuretics, your doctor will check your potassium levels. You can keep a good potassium level by eating foods high in it. These include: milk, yogurt, winter squash, tomatoes, apricots, cantaloupe, bananas, oranges, prunes, carrots, potatoes, raisins, spinach and dates.

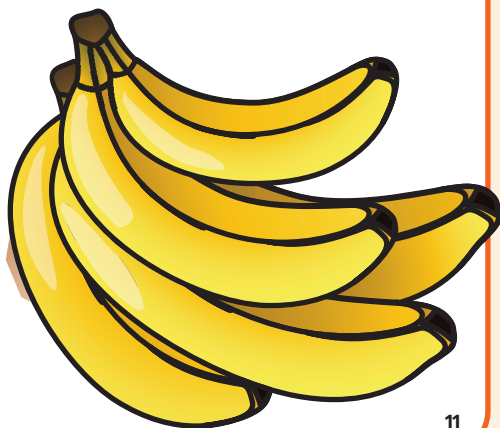
The Relationship Between Drugs and Nutrients

Some COPD medicines can have an effect on your nutritional needs. In addition, the foods you eat can change a drug's effectiveness.

For more information about the relationship between drugs, nutrients and food, talk with your doctor. You may also want to read the COPD Foundation's *Big Fat Reference Guide*®, Chapter B-10, pages 14-17. The COPD *Big Fat Reference Guide*® can be found at www.copdbfrg.org.

Milk Does NOT Create More Mucus

Many people believe that drinking cow's milk will create extra mucus in their nose, throat and lungs. This is not true. The fats in milk can leave a soft, filmy coating in your throat and mouth. This may make you feel like you have extra mucus in your throat. Milk is an important part of a good diet. It contains calcium, protein, vitamins A, D and B-12 and riboflavin.

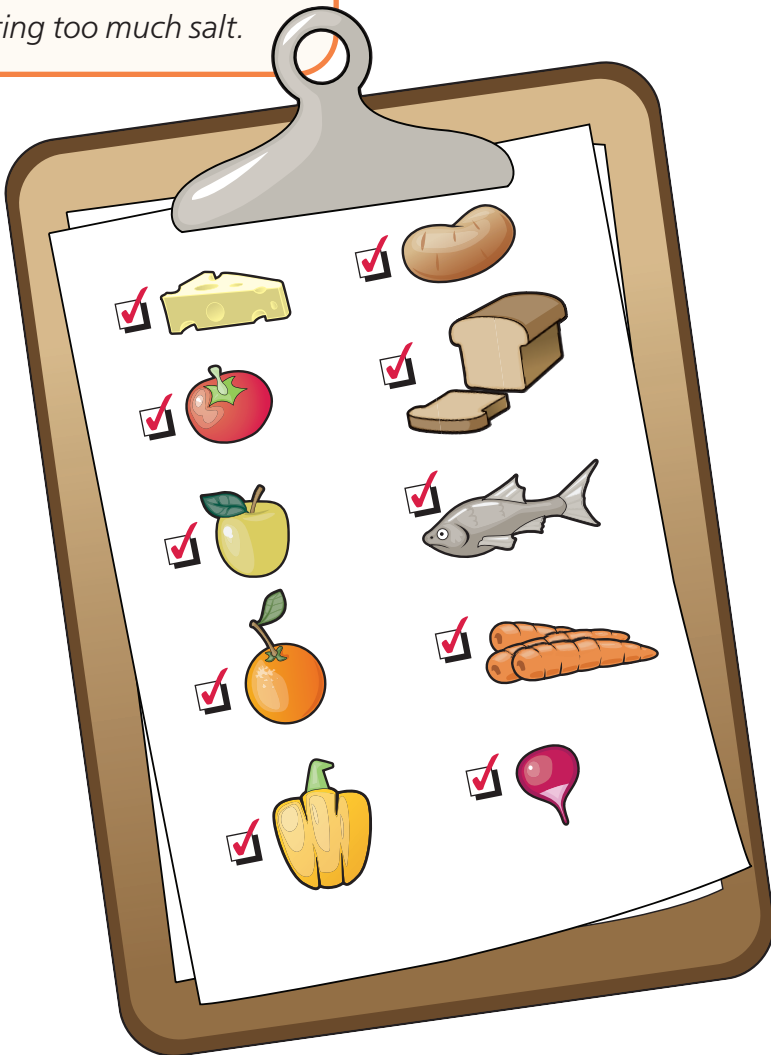


A Fluid-Restricted Diet

At some point you may be “retaining fluid.” Your doctor may put you on a fluid-restricted diet. Ask your doctor or dietitian to help you plan what to eat and drink. Fluid retention can be caused by medicines. It can also be caused by your COPD. And sometimes it is caused by eating too much salt.

Good Nutrition is Key to Managing Your Lung Disease

A good, nutritious diet is very important for anyone. But it is most critical for someone with COPD. Keeping an ideal weight supports your lungs as they work. Good nutrition gives your body the energy it needs to do the work of breathing and staying active. Good nutrition can help you have a better quality of life.



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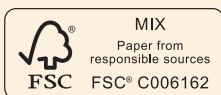
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**This Slim Skinny Reference Guide® (SSRG)
was created by the COPD Foundation.**

Take Action Today. Breathe Better Tomorrow.



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