Welcome

COPD MANAGEMENT PROGRAM

Reproduced with permission of UofL Pulmonary’s COPD Management Program
Section 1: What is COPD?
Section 2: How the Lungs work.
Section 3: Managing your COPD.
Section 4: Exercise
Section 5: Breathing techniques.
Section 6: Preventing Respiratory Infections.
Section 7: Nutrition & COPD.
Section 8: Smoking cessation.
Section 9: Medications
What is COPD – Chronic Obstructive Pulmonary Disease

**CHRONIC:** long term or recurrent  
**OBSTRUCTIVE:** To block or hinder  
**PULMONARY:** Involving or affecting the lungs  
**DISEASE:** An impairment of health or a condition of abnormal functioning

Chronic obstructive lung disease (COPD) is an illness that affects the lungs, which makes breathing difficult. It can also result in shortness of breath, chronic cough, and sputum production.

Many conditions are considered COPD. These include emphysema and chronic bronchitis. Other chronic lung conditions are asthma and restrictive (interstitial) lung disease.

**Emphysema** is a common type of COPD in which the air sacs (alveoli) of the lungs become damaged causing them to enlarge and burst.

The alveoli are the cells in the lungs where oxygen and carbon dioxide are exchanged. Damage in this area makes it difficult to expel air from the lungs. This causes an increase of carbon dioxide in the body.

In this disorder the lungs are unable to contract fully and gradually lose elasticity. Holes develop in the lung tissue, reducing the lungs' ability to exchange oxygen for carbon dioxide. As a result, breathing may become labored and inefficient, and you may feel breathless most of the time.

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**Chronic Bronchitis** involves the airways in the lungs. The airways are inflamed, and the mucus-producing glands in the larger airways of the lungs (bronchi) are enlarged. More mucus is produce than normal. Excessive mucus will increase chances of respiratory infections, and trigger a cough. In chronic bronchitis, this cough lasts for at least three months of the year for two consecutive years. When the airways become inflamed this results in less space for air to pass.

People with COPD may also have **Asthma**. The airways become inflamed and narrow. The muscles surrounding the airways go into spasm and tighten, making it hard for air to pass through the airways. The constriction and inflammation may cause patients to experience some or all of the following symptoms: Wheezing, Chest Tightness, Shortness of Breath, and Chronic Cough.

**Alpha1 – antitrypsin deficiency** (AAT deficiency) is one cause of COPD that occurs in a very small number of patients. It is genetic, meaning it is passed on by one or both parents at birth. Alpha-1 antitrypsin deficiency is an inherited form of emphysema (em-fuh-ZEE-muh). People with the condition, also known as AAT Deficiency or alpha-1, do not have enough of a protein called alpha-1 antitrypsin (AAT) in their blood. This protein is made in the liver, and it protects the lungs so they can work normally. Without enough AAT, the lungs can become damaged by emphysema. Alpha-1 also can also cause liver damage.
How the Lungs work

The lung’s job is to get air and gases into and out of the body. When you breathe in, air enters the lungs by traveling down the airways until it reaches the air sacs (alveoli). The air you inhale contains oxygen, a gas your body needs. Once in the air sacs, the oxygen passes into the blood vessels. The oxygen rich blood travels to all parts of the body. While the body is using up the oxygen, carbon dioxide is produced. The blood carries the carbon dioxide back to the lungs. Exhaling is how we rid our body of the carbon dioxide. This process of getting oxygen in and carbon dioxide out is called **gas exchange**.
Managing your COPD

COPD can be managed with appropriate care. The loss of lung function can be slowed, symptoms can be alleviated, and you can live an active life. Quitting smoking (if you smoke), limiting your exposure to lung damaging chemicals, exercising regularly, proper nutrition, flu and pneumonia vaccinations, and following your physicians plan of care.

Regular doctor visits help you and your doctor watch your condition and catch possible threats to your health early. Medications can help, but must be taken as your physician prescribes.

Rest is very important in managing your COPD. While you sleep our body has the time needed to repair minor damage from the day and to recharge your energy. Try to get eight hours of sleep every night.

When in doubt, call your Case Manager.
Exercise

COPD can cause you to be less and less active over time. Which can lead to you becoming more and more out of shape, and that can make it even harder for you to breathe.

Exercise keeps your lungs working at their best, helps to maintain your weight, and gives you more energy. Exercise may include walking, swimming, dancing, gardening, or riding on an exercise bike. Ask your physician to recommend activities that are best suited for you.

Plan your workout for the time of day when you normally have the most energy. Dress for comfort and wear shoes that support your feet. Check the weather before you start. On warm or humid days, reduce your workout and drink extra fluids. Exercise early in the day, before it gets hot. If it’s cold outside or if air quality is poor, exercise indoors.

Drink plenty of water before, during, and after exercise. Keep your rescue inhaler with you.

Shortness of breath is normal with exercise, as long as you can talk and are in control of your breathing. If you have increased shortness of breath, slow down. If it continues, stop and rest.

- Always check with your physician before trying any new exercise.
Breathing techniques

Pursed-Lip Breathing

Pursed-lip breathing is basically breathing in through the nose and out through pursed lips. This technique is particularly useful when your shortness of breath flares up and when you exercise.

When you have COPD, weaknesses in your airways can cause them to collapse when you exhale, leaving air trapped in your lungs. This trapped air is what leads to shortness of breath. When you exhale with your lips pursed, there is increased resistance in your airways, which helps them stay open during exhalation.

Practice this technique by inhaling through your nose, making sure to keep your mouth closed. Then purse your lips and exhale softly for at least twice the amount of time as your inhale (2 seconds in, 4 seconds out). Doing this forces you to use the correct breathing muscles and ensures you exhale as much air as possible so that it does not get trapped in your lungs. With less air trapped in your lungs, more oxygen will be able to get into your bloodstream.
Diaphragmatic breathing is a breathing exercise that helps to strengthen your diaphragm, which is the most important muscle used in breathing. Your diaphragm is located under your lungs and helps you expel air from your lungs when you exhale. When air gets trapped in the airways in COPD patients, the diaphragm has difficulty functioning properly and eventually becomes less useful.

Lie on your back with a pillow under your head. Bend your knees or put a pillow under them, as this helps to relax your stomach. Place one hand on your stomach, just below your rib cage. Put your other hand on your chest. Slowly breathe in and out through your nose, using your stomach muscles. If you do this right, the hand on your stomach will rise and fall as you inhale and exhale. The hand on your chest should hardly move. Time your breathing so that you exhale for about twice as long as you inhale (2 seconds in, 4 seconds out).

Once you have mastered this, you can do this technique while sitting, standing, and walking. Don’t forget to use pursed-lip breathing while doing diaphragmatic breathing.
Preventing Respiratory Infections

People with COPD are more likely to get respiratory infection. It’s impossible to prevent infection completely, but you can take precautions to reduce your chances of getting sick.

- Wash your hands often
- Use hand sanitizer between washings
- Care for your teeth and gums
- Get vaccinated (Flu and pneumonia)
- Stay aware of germs (crowds, avoid shaking hands, etc.)
- Take care of sinus problems (germs in the sinuses have a direct route to your throat and lungs)

Warning signs:

- Increased shortness of breath, wheezing, or coughing
- Mucus that has increased, has changed color, is bloody, or has an odor
- Feeling more tired than usual
- Chest tightness that does not go away with your normal medications
- Fever, chills, or night sweats
- Muscle aches and pains or headaches
- A change in peak flow numbers (if this is part of your treatment plan)

Infections don’t always cause fevers. Watch for all the signs listed above, and get to know YOUR own symptoms.
Nutrition & COPD

Eating better can help you feel better. A variety of healthy foods can help fight infections, prevent illnesses, and give you more energy.

- Eat 5-6 small meals a day instead of 3 large ones
  This will help prevent shortness of breath. Digesting a big meal draws blood and oxygen to the stomach and away from other parts of the body that need them.
- Drink more fluids, especially water, as this may help reduce excess mucus. (If you have another condition such as heart failure, your physician may limit fluid intake)
- Eat a variety of healthy foods every day (grains, vegetables, fruits, milk products, meat, and beans).
- Limit caffeinated drinks

Being underweight can decrease energy, making it harder to be active, and more prone to infection. Being overweight can increase shortness of breath.

** Call your physician if you are steadily losing weight (without trying to), or if you gain 3 to 5 pounds in 1 week.

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Smoking Cessation

Quitting smoking may be the most important thing you can do for your health. Your lung health will start to improve the very first day you stop smoking.

The health benefits of quitting smoking continue for the rest of your life. Here is an example of what you can expect when you quit smoking cigarettes:

- **20 minutes after quitting:** Your heart rate and blood pressure drops.
- **12 hours after quitting:** The carbon monoxide level in your blood drops to normal.
- **Two weeks to three months after quitting:** Your circulation improves and your lung function increases.
- **One to nine months after quitting:** Coughing and shortness of breath decrease; cilia (tiny hair-like structures that move mucus out of the lungs) regain normal function in the lungs, increasing the ability to handle mucus, clean the lungs, and reduce the risk of infection.
- **One year after quitting:** The excess risk of coronary heart disease is half that of a smoker's.
- **Five years after quitting:** Your stroke risk is reduced to that of a nonsmoker 5 to 15 years after quitting.
- **10 years after quitting:** The lung cancer death rate is about half that of a continuing smoker's. The risk of cancer of the mouth, throat, esophagus, bladder, cervix, and pancreas decreases.
- **15 years after quitting:** The risk of coronary heart disease is that of a nonsmoker's

Ask your physician or case manager for information about methods to help you quit smoking.

Secondhand smoke is also dangerous to your lungs. If you live, work, or socialize around smokers – ask them to not smoke when you are around.
Medications

Helpful facts and tips

- COPD medications are used to improve your symptoms, but they cannot cure COPD.
- Most people need to take more than one type of medication. Not everyone with COPD takes the same medication.
- There are many different COPD medications, and they come in many forms: pills, vapors, powder, liquids, and injections.
- COPD medications are generally very safe. However, side effects can occur and vary depending on the medication and dose. Ask your doctor to describe medication side effects.
- The way the body responds to medications might change over time, so your medications might need to be adjusted. Tell your doctor if you notice a difference in how well the treatment plan is working.

COPD Treatment: Bronchodilator

One type is bronchodilators, which open and relax your airways, making it easier to breathe. The different types of bronchodilators are:

- **Short-acting beta antagonist (SABA) bronchodilators** may last for four to six hours — long enough for you to get some relief. Then you may not need to use them until your next episode of symptoms. These include Albuterol (Ventolin, Proventil) and levalbuterol (Xopenex), Pirbuterol (Maxair), and Ipratropium (Atrovent). Albuterol and Ipratropium (Combivent) is a common combination short-acting inhaled bronchodilator.

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• **Long-acting beta antagonist (LABA) bronchodilators** are used every day and last about half a day or more. They are for patients whose COPD requires ongoing treatment. These include salmeterol (Serevent) and formoterol (Foradil). These medications **should not be used** for acute shortness of breath in an emergency.

• **Anticholinergic** medications are the most commonly prescribed COPD treatments. They work by keeping your airways from becoming tense and tightening up. COPD treatments in this class of medications include inhaled tiotropium (Spiriva), and ipratropium bromide (Atrovent).

• **COPD Treatment: Anti-Inflammatory Medications**
  If you have COPD, your airways can become swollen, especially if your bronchodilator is not keeping your symptoms under control. Your doctor may prescribe inhaled corticosteroids to reduce this inflammation so you can breathe more easily. These COPD treatments include the inhaled triamcinolone (Azmacort), fluticasone (Flovent), budesonide (Pulmicort), mometasone (Asmanex), and beclomethasone (QVAR). Prednisone may also be an option.

**Combination Long-Acting Bronchodilator and Anti-Inflammatory**

• These combination medications combine two medications that are used to manage COPD in one device, a long-acting bronchodilator and an anti-inflammatory. Common combination long-acting bronchodilator and anti-inflammatory medications include Advair® (Flovent and Serevent), and Symbicort (Pulmicort and Foradil). They are taken every 12 hours.
COPD Treatment: Expectorants
Check with your doctor before using an expectorant cough medicine to help you clear your lungs. (The ingredient guaifenesin on the label indicates that a medication is an expectorant.) Expectorants cause the body to make thinner mucus, which creates the "wet" cough that indicates you have mucus.

Helping you breathe more easily is the primary goal of treatment for COPD. The more easily you can breathe, the better able you will be to stay active and take care of your health.

COPD Treatment: Mucolytics
A prescription medication that allows your body to clear mucus from your airways. Atelcysteine (Mucomyst) is often prescribed with inhaled bronchodilators.

COPD Treatment: Oxygen
If you are not getting enough oxygen because of the damage to your lung tissue from COPD, your doctor may prescribe oxygen for your health. You may have an oxygen tank that you can carry with you and a mask or nose prongs at the end of a flexible tube that allow you to breathe the oxygen directly into your airways. Oxygen may be necessary to help you sleep well at night and be active during the day.

COPD Treatment: Vaccines
Vaccines play an important role in your COPD treatment. People with COPD can experience serious health consequences if they come down with the flu or pneumonia. Experts recommend that people with COPD include a pneumococcal vaccine and an annual flu shot in their COPD treatment plan.
COPD/Asthma Education Classes

Learn how to better control your condition and make changes to reach personal health goals

2013 Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Condition</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 11th</td>
<td>Friday</td>
<td>COPD</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>February 12th</td>
<td>Tuesday</td>
<td>Asthma</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>March 12th</td>
<td>Tuesday</td>
<td>COPD</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>April 18th</td>
<td>Thursday</td>
<td>Asthma</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>May 16th</td>
<td>Thursday</td>
<td>COPD</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>June 11th</td>
<td>Tuesday</td>
<td>Asthma</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>July 18th</td>
<td>Thursday</td>
<td>COPD</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>August 20th</td>
<td>Tuesday</td>
<td>Asthma</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>September 20th</td>
<td>Thursday</td>
<td>COPD</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>October 17th</td>
<td>Thursday</td>
<td>Asthma</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>November 15th</td>
<td>Friday</td>
<td>COPD</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>December 17th</td>
<td>Tuesday</td>
<td>Asthma</td>
<td>4:00 p.m. – 5:00 p.m.</td>
</tr>
</tbody>
</table>

These classes are free and will be held at the 
U of L Healthcare Outpatient Care Center
401 E. Chestnut Street – Suite 120 A
Louisville, KY 40202

Please call 502-852-2909 to reserve a seat
(Seating is limited to 15)

U of L Program of Excellence in COPD
Patient Questionnaire

Patient Name___________________________________ DOB___________ Today’s Date ___________

Gender:  □ Male  □ Female

Instructions: This questionnaire will help in understanding problems that you may have. It may be necessary to ask you more questions about some of these items. Please make sure to check a box to answer **every** question.

A. During the **LAST 2 WEEKS**, have you been bothered **A LOT** by…

   1. little interest or pleasure in doing things?  □ Yes  □ No
   2. feeling down, depressed or hopeless?  □ Yes  □ No

   For the Physician: If the answer to either question in the above “A section” is “YES”, proceed to administer the PHQ-9.

B. During the **LAST 2 WEEKS**, have you been bothered **A LOT** by…

   1. “nerves” or feeling anxious or on edge?  □ Yes  □ No
   2. worrying about a lot of different things?  □ Yes  □ No
   3. have you had an anxiety attack (suddenly feeling fear or panic?)  □ Yes  □ No

   For the Physician: If the answer to any of the above “B section” questions is “YES”, proceed to administer the Carroll Davidson Assessment.
**PHQ-9**

**PATIENT HEALTH QUESTIONNAIRE-9**

*PHQ-9*

Over the last 2 weeks, how often have you been bothered by any of the following problems? *(Use ✔️ to indicate your answer)*

<table>
<thead>
<tr>
<th>Problem</th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Feeling down, depressed, or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Trouble falling or staying asleep, or sleeping too much</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Feeling tired or having little energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Poor appetite or overeating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Trouble concentrating on things, such as reading the newspaper or watching television</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead or of hurting yourself in some way</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**FOR OFFICE CODING**

0 + ________ + ________ + ________ = Total Score: ________

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

<table>
<thead>
<tr>
<th>Difficulty Level</th>
<th>Not difficult at all</th>
<th>Somewhat difficult</th>
<th>Very difficult</th>
<th>Extremely difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display or distribute.
These questions are to ask you about things you may have felt most days in the past six months.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Most days I feel very nervous.</td>
<td></td>
<td></td>
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<tr>
<td>2. Most days I worry about lots of things.</td>
<td></td>
<td></td>
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<tr>
<td>3. Most days I cannot stop worrying.</td>
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<td></td>
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<tr>
<td>4. Most days my worry is hard to control.</td>
<td></td>
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<tr>
<td>5. I feel restless, keyed up or on edge.</td>
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<td></td>
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<tr>
<td>6. I get tired easily.</td>
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<td></td>
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<tr>
<td>7. I have trouble concentrating.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I am annoyed or irritated.</td>
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<td></td>
</tr>
<tr>
<td>9. My muscles are tense and tight.</td>
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<td></td>
</tr>
<tr>
<td>10. I have trouble sleeping.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Did the things you noted above affect your daily life (home life, or work, or leisure) or cause you a lot of distress?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Were the things you noted above bad enough that you thought about getting help for them?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total score** (number of YES responses) = ________
Smoking Cessation Classes

If you are ready to become a nonsmoker, the Louisville Department of Public Health and Wellness and the Kentucky Cancer Program offer Cooper Clayton stop smoking classes all over Louisville!

Classes include 12 one-hour weekly sessions followed by relapse prevention. We want to make sure you have the skills you need to become and to remain a nonsmoker. Class participants use nicotine replacement products such as the nicotine patch, gum, or lozenges.

What you will learn at a Cooper Clayton Smoking Cessation Class:

- How to use nicotine patches, lozenges, or gum to deal with cravings for nicotine.
- How to handle urges to smoke.
- How to avoid weight gain.
- How to support and be supported by other nonsmokers.

Thousands of people have used these classes to become nonsmokers, and so can you. Even if you've tried to stop smoking before and haven't been able to, these classes can work for you!

Classes, materials and nicotine replacement products are provided free at most classes. **Registration is required.** For more information or to register, call (502) 574-STOP (7867) or register via email for the next class in your area. If you register by email, give your name, phone number, home address and email address, and tell us which class you want to attend. For a class schedule visit

http://www.louisvilleky.gov/Health/IWantTo/StopSmokingClasses.htm

Passport Yes, You Can! Smoking Cessation Program

Members interested in a Smoking Cessation Coach should call 877-903-0082, press “0”, and then press “8366.”
<table>
<thead>
<tr>
<th>Pharmacotherapy</th>
<th>Precautions</th>
<th>Side Effects</th>
<th>Dosage</th>
<th>Use</th>
<th>Availability</th>
<th>Cost/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicotine Gum</td>
<td>Pregnancy (Category D) and breastfeeding</td>
<td>Mouth soreness</td>
<td>&gt;25 cigarettes/day: 4mg</td>
<td>Up to 12 weeks</td>
<td>Nicorette®, Nicorette Mini®, generic products (OTC only)</td>
<td>Brand name: 2 mg - $4.45, 4 mg - $4.76</td>
</tr>
<tr>
<td>Nicotine Lozenge</td>
<td>Pregnancy and breastfeeding Recent (&lt; 2 weeks) myocardial infarction Serious underlying arrhythmias Serious/worsening angina pectoris</td>
<td>Hiccups</td>
<td>1st cigarette &lt;30 min after waking: 4mg</td>
<td>Up to 12 weeks</td>
<td>Combi™ Lozenge, generic products (OTC only)</td>
<td>Brand name: 2 mg - $4.05, 4 mg - $4.05</td>
</tr>
<tr>
<td>Nicotine Patch</td>
<td>Severe eczema or psoriasis Pregnancy (Category D) and breastfeeding Recent (&lt; 2 weeks) myocardial infarction Serious underlying arrhythmias Serious/worsening angina pectoris</td>
<td>Local skin reaction</td>
<td>One patch per day if &gt; 10 cigs/day: 2mg</td>
<td>8-12 Weeks</td>
<td>Nicoderm CQ®, Nicotrol, generic products (prescription and OTC)</td>
<td>Brand name: $3.61, Generic: $2.58</td>
</tr>
<tr>
<td>Nicotine Spray</td>
<td>Severe reactive airway disease Pregnancy (Category D) and breastfeeding Recent (&lt; 2 weeks) myocardial infarction Serious underlying arrhythmias Serious/worsening angina pectoris</td>
<td>Nasal irritation</td>
<td>1-2 doses/hour (8-40 doses/day) (one dose = one spray per nostril): Maximum: 5 doses/hour</td>
<td>Up to 6 months</td>
<td>Nicotrol NS® (prescription only)</td>
<td>$3.04 (8 doses)</td>
</tr>
<tr>
<td>Nicotine Oral Inhaler</td>
<td>Recent (&lt; 2 weeks) myocardial infarction Serious underlying arrhythmias Serious/worsening angina pectoris Bronchospastic disease</td>
<td>Local irritation of mouth &amp; throat</td>
<td>6-16 cartridges/day Individual dosing: initially use 1 cartridge q 1-2 hours</td>
<td>3-6 months</td>
<td>Nicotrol SR® Inhaler (prescription only)</td>
<td>$7.10 (6 cartridges)</td>
</tr>
<tr>
<td>Bupropion SR</td>
<td>History of seizure History of eating disorder MAO inhibitor therapy in previous 14 days Current use of bupropion in any other form Pregnancy (Category C) and breastfeeding</td>
<td>Insomnia</td>
<td>Days 1-3: 150 mg each morning Days 4-end: 150 mg twice daily</td>
<td>Begin treatment 1-2 weeks before quit date Use for 7-12 weeks or maintenance up to 6 months</td>
<td>Zyban®, generic SR products (prescription only)</td>
<td>Brand name: $6.72, Generic: $2.70</td>
</tr>
<tr>
<td>Varenicline</td>
<td>Severe renal impairment (dosage adjustment is necessary) Currently undergoing dialysis Monitor for changes in mood, behavior, psychiatric symptoms, and suicidal ideation Pregnancy (Category C) and breastfeeding</td>
<td>Nausea</td>
<td>Days 1-3: 0.5 mg every morning Days 4-7: 0.5 mg twice daily Days 8-end: 1 mg twice daily</td>
<td>Begin treatment one week before quit date Use for 3 months; maintenance up to 6 months</td>
<td>Chantix™ (prescription only)</td>
<td>$4.75 (2 tablets)</td>
</tr>
</tbody>
</table>

* The information contained in this table is not comprehensive. Please see package insert for additional information.
1 Cost/day based on average retail prices of medications purchased at four chain pharmacies located in Kentucky October 2009.
2 Quitting smoking, with or without medication, can result in nicotine withdrawal symptoms (such as depressed mood, agitation) or a worsening of underlying psychiatric illness, such as depression. Monitor patients for behavior or mood changes.
3 In July 2009, the FDA mandated that the prescribing information for all bupropion and varenicline containing products include a black-box warning highlighting the risk of serious neuropsychiatric symptoms, including changes in behavior, hostility, agitation, depressed mood, suicidal thoughts and behavior, and attempted suicide. Clinicians should advise patients to stop taking varenicline or bupropion SR and contact a healthcare provider immediately if they experience agitation, depressed mood, and any changes in behavior that are not typical of nicotine withdrawal, or if they experience suicidal thoughts or behavior. If treatment is stopped due to neuropsychiatric symptoms, patients should be monitored until the symptoms resolve.