



# Smoking and Respiratory Disease

## *What Healthcare Professionals Need to Know*

### Smoking Causes Respiratory Disease

Cigarette smoking has long been linked to adverse effects on the respiratory system, causing malignant and nonmalignant diseases, exacerbating chronic lung diseases, and increasing the risk for respiratory infections. Research shows that smoking causes:

- Chronic obstructive pulmonary disease (COPD), resulting in about 8 in 10 COPD-related deaths in the U.S.
- Asthma exacerbation in adults
- Increased risk of tuberculosis disease and mortality
- Respiratory symptoms, including cough, wheeze, phlegm, and dyspnea
- Acute respiratory illness, including pneumonia
- Reduced lung function and impaired lung growth in childhood and adolescence

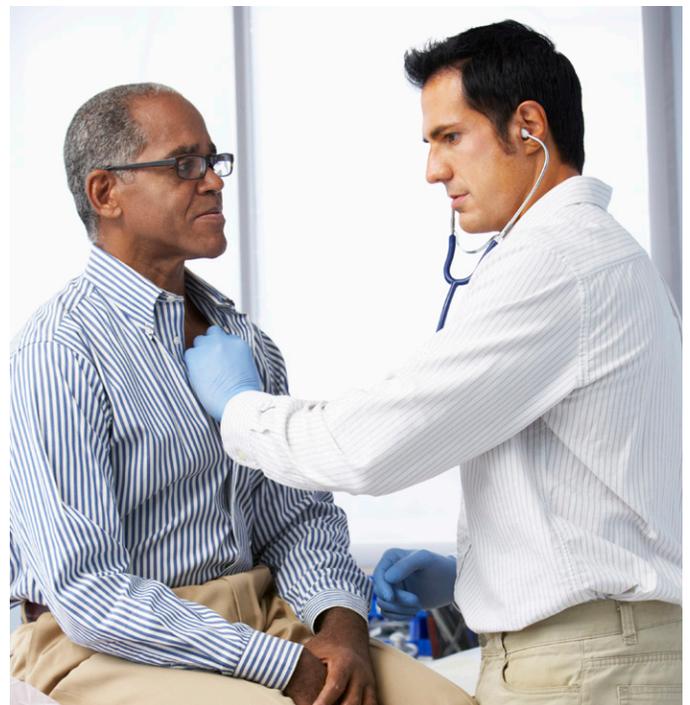
Additionally, research suggests that smoking may cause idiopathic pulmonary fibrosis, recurrent tuberculosis disease, asthma exacerbation in adolescents, and increased incidence of asthma in adolescents and adults.

Secondhand smoke exposure causes respiratory symptoms, impaired lung function, and lower-respiratory illnesses in children and may cause respiratory symptoms, COPD, and the incidence of adult-onset asthma.

### Smoking Cessation Improves Lung Health

Smoking cessation is one of the most important actions people who smoke can take to improve their health and reduce their risk for COPD. This is true for all people who smoke, regardless of age or smoking duration and intensity. The health benefits also extend to patients already diagnosed with COPD.

**Smoking cessation improves respiratory health. Healthcare professionals, particularly those in pulmonary care, should treat patients' tobacco use and dependence.**



### Benefits of Smoking Cessation

- ▶ Reduces the risk of developing COPD.
- ▶ Among those with COPD, slows the progression of COPD and reduces the loss of lung function over time.
- ▶ Reduces risk of cancers in the respiratory system.
- ▶ Reduces respiratory symptoms (e.g., cough, sputum production, wheezing).
- ▶ Reduces respiratory infections (e.g., bronchitis, pneumonia).
- ▶ Research suggests cessation may improve lung function, reduce symptoms, and improve treatment outcomes among persons with asthma.

## Clinical Interventions Work

Tobacco use and dependence is a chronic, relapsing condition that often requires repeated intervention and long-term support. Quitting can be hard, but evidence-based treatments (listed below) improve success.

- **Behavioral Counseling:** Counseling can be in person (one-on-one or in a group) or over a telephone quitline. Text messaging and web-based interventions also help people quit smoking.
- **Medication:** Seven medications are approved by the U.S. Food and Drug Administration (FDA) for smoking cessation (see text box).
- **Combining Treatments:** Counseling and medication are effective on their own, but using them together can more than double the chances of quitting. Combining long-acting NRT (patch) with short-acting NRT (e.g., gum, lozenge) also increases the chances of quitting.

## FDA-Approved Medications

- ▶ **Nicotine Replacement Therapy (NRT)** reduces nicotine withdrawal symptoms and is available over the counter (patch, gum, and lozenge) and by prescription (inhaler and nasal spray).
- ▶ **Varenicline** is a nicotine receptor partial agonist available only by prescription. It reduces nicotine withdrawal symptoms (including craving) and reduces the rewarding effects of cigarettes by blocking nicotinic receptors.
- ▶ **Bupropion** is a dopamine and norepinephrine reuptake inhibitor with nicotine receptor antagonist properties. It reduces craving and other withdrawal symptoms and is available by prescription only.

## The Entire Clinical Care Team Can Help

A team approach is the best way to treat tobacco use and dependence. Integrating treatment into the routine clinical workflow and engaging the entire healthcare team in treatment delivery can make a difference.



### Advise Patients to Quit

- Talk to patients at every visit about their tobacco use. Even brief advice can influence a patient's decision to quit smoking.
- Advise patients that quitting is one of the most important things they can do to improve their health and prognosis.
- Remind patients that it is never too late to quit smoking. Quitting is beneficial at any age.
- Provide patients support, regardless of their readiness to quit.



### Offer Patients Treatment

- Offer patients a combination of counseling and medications.



### Refer Patients to Additional Support

- Refer patients to cessation resources and programs in your health system and community. You can also refer them to telephone quitlines (1-800-QUIT-NOW) and web- and text-based programs.



### Follow Up With Patients

- Assess your patients' progress over time and provide additional support. It may take several attempts for them to quit smoking.
- Try new strategies, like new medications the patient hasn't tried, medication combinations, or new approaches to handling triggers.
- Provide ongoing support and encourage patients to keep trying and not give up.

## Smoking Cessation Resources for Clinicians

- ▶ CDC resources: [www.cdc.gov/TobaccoHCP](http://www.cdc.gov/TobaccoHCP)
- ▶ Million Hearts resources: [Tobacco Treatment Protocol](#), [Action Guide](#), and [Change Package](#) available at [millionhearts.hhs.gov](http://millionhearts.hhs.gov)
- ▶ [Treating Tobacco Use and Dependence, Clinical Practice Guideline: 2008 Update](#) available at [www.ahrq.gov](http://www.ahrq.gov)
- ▶ U.S. Preventive Services Task Force: [Tobacco Smoking Cessation in Adults, Including Pregnant Women: Behavioral and Pharmacotherapy Interventions](#) available at [www.uspreventiveservicestaskforce.org](http://www.uspreventiveservicestaskforce.org)

