

TOBACCO AND ASTHMA — ENOUGH TO TAKE YOUR BREATH AWAY

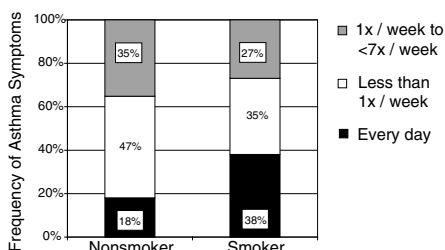
“Tobacco is a filthy weed, That from the devil does proceed; It drains your purse, it burns your clothes, And makes a chimney of your nose.”

BENJAMIN WATERHOUSE (1754–1846)

TOBACCO REMAINS the leading cause of preventable illness and death in the U.S. While this is more or less common knowledge, few providers in Oregon are aware of the widespread, debilitating effect of tobacco on Oregonians with asthma. An astounding 31% of Oregonians with asthma smoke, a rate more than a third higher than among those without asthma (23%; 2001 Behavioral Research Risk Factor Survey [BRFS]). As you might expect, all this smoking has a less-than-salubrious effect on asthma symptoms. People with asthma who smoke noted that asthma limited their activity 1½ times as often it did in those who never smoked (55 vs. 34%, $p < .05$), or in former smokers (55 vs. 38%, $p .05$). Patients with asthma who smoke also experience symptoms more often. While 18% of non-smokers with asthma are experiencing symptoms daily, 38% of smokers with asthma experience daily symptoms—more than double the rate in non-smokers (see figure below).

Oregon adult smokers with asthma also reported taking sick days because of their asthma almost twice as often as

Frequency of Symptoms in People with Asthma by Current Smoking Status, Oregon, 2001



their nonsmoking asthmatic counterparts (25 vs. 13%, $p < .05$). That means employees missed more work, students missed more school, and moms and dads missed more work to care for sick kids. As if all this weren't bad enough, smoking among people with asthma is also associated with faster decline in lung function, more severe exacerbations, and even an increase in fatal asthma attacks.¹

With all this added disability, plus the fact that tobacco smoke is one of the most common triggers for asthma, you'd think people with asthma would avoid the stuff like the plague; but they don't. Why? Here is one theory from the literature:

“Tobacco is a dirty weed; I like it. It satisfies no normal need; I like it. It makes you thin, it makes you lean, it takes the hair right off your bean. It's the worst darn stuff I've ever seen; I like it.”

GRAHAM LEE HEMMINGER (1896–1949)

Well, not all people with asthma necessarily “like it,” but it certainly is addictive. It is not known why asthma would be associated with high smoking rates, but it clearly is a trend worth reversing.

WOMEN ARE MORE AFFECTED BY ASTHMA, AND WOMEN WHO SMOKE HEAVILY HAVE THE HIGHEST RATES OF ALL

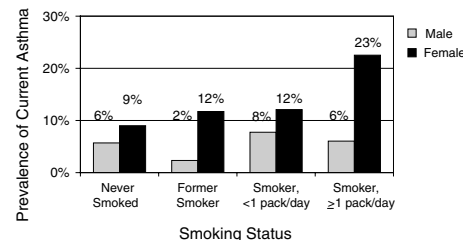
Women in Oregon are more likely to report having asthma (10.2%, CI[†] 8.9, 11.6) than are men (5.6%, CI 4.5, 6.7; [2002 BRFS]). Oregonians who smoke more than a pack a day are twice as likely to report having asthma as those who never smoked. Further examination of how the extent of smoking affects asthma prevalence finds an even more marked sex-based disparity. However, women are more likely to have asthma at all levels of tobacco

[†] 95% Confidence Interval

WARNING! THE READING OF SMOKING-RELATED STATISTICS MAY CAUSE HYPERTENSION AND SHORTNESS OF BREATH.

use, and as the amount of smoking goes up, asthma prevalence skyrockets. Women who smoke heavily are 2½ times as likely to have asthma than women who never smoked, and almost four times as likely to have it than male heavy smokers (see figure below). Why this would be so is a mystery. Some suggest that women's lungs may be more susceptible to the harmful effects of smoking than men's.² It is also possible that a woman coughing secondary to her smoking habit may be more likely to be diagnosed with asthma than her male counterpart. In any case, smoking by an asthmatic (or non-asthmatic) mother does not affect her health alone. Infants born to mothers who smoked during pregnancy are more likely to develop asthma and atopy than those born to mothers who did not smoke.³

Prevalence of Adult Asthma by Smoking Status, Oregon, 2001



STEROIDS, AND SMOKING, AND FLARES, OH MY!

In addition to the high rates of smoking among asthmatics, there is another problem. Recent studies have indicated that active smoking impairs responsiveness to corticosteroids in



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patients with asthma.^{4,5} Corticosteroids are the best tool to control chronic asthma and reduce airway inflammation during flare-ups of the disease; if they don't work in a large subset of asthma patients because those patients are smoking, that creates a big problem. From a public health standpoint, this phenomenon may be an important contributing factor in recent increases in morbidity from asthma. From a clinical standpoint, it presents a bigger reason (as if we needed one) to get asthmatic patients to quit smoking.

"For thy sake, Tobacco, I would do anything but die."

CHARLES LAMB (1775–1834)

FIGHTING THE GOOD FIGHT

Physicians are the front line in the war against tobacco use, and a new battleground has been identified in Oregonians with asthma. As regular readers of the CD Summary know by now, brief, frequent advice to quit given by a health care provider, along with behavioral and pharmacologic assistance, have repeatedly been demonstrated to increase quit rates.⁶ When people with asthma quit smoking, their symptoms improve, they attend work and school more regularly and their children are healthier.

How can we fight the debilitating effects of smoking in patients with asthma? Simple systems approaches are effective and powerful. Setting up a Five-A's office system is one of the best ways. Contrary to what you may have heard, the Five A's do *not* stand

for: *Assume, Annoy, Aggravate, Assault, and Argue*. Rather they outline a simple, effective strategy to help smokers kick the habit: *Ask* about smoking status, *Advise* the smoker to quit, *Assess* their readiness to quit, *Assist* the smoker with access to counseling, nicotine replacement therapy or bupropion, and *Arrange* for follow-up. It's quick, it's easy, and it works.

The Five A's can be completely integrated into an office- or hospital-wide system. The smoking status of every patient can be assessed and documented at each office visit. Staff can be designated to provide education and counseling about quit strategies, tobacco withdrawal symptoms, and pharmacologic therapy. If this seems a bit much to put in place at this point, recommend that people with asthma (and other smokers) quit, give them the Oregon Quit Line phone number, and encourage them to call (1-877/270-STOP or 1-877/2NO FUME [in Spanish]). The Quit Line provides motivational interviewing and evidence-based, tailored interventions.

Clinicians who treat children with asthma are well positioned to approach the topic of parental smoking because of the ongoing relationship with the family, and because a parent's quitting affects the health of his or her child. Pediatric and family practice providers can help asthmatic children by determining if their parents smoke and by having a system in place to help parents quit. And this doesn't mean that you have to do it all yourself. By designating staff to track

parental smoking status and to make sure all parents who smoke receive a recommendation to quit and contact information for the Oregon Quit Line, a pediatric practice can be every bit as important in the battle against tobacco-induced disease as one for adults.

"This very night I am going to leave off tobacco! Surely there must be some other world in which this unconquerable purpose shall be realized."

LETTER TO THOMAS MANNING (1815)

The Oregon Tobacco Prevention and Education Program can provide on-site clinic trainings to integrate the Five A's into your practice. We have free brochures and other smoking cessation materials available through our Clearinghouse. Give us a call at 503/731-4273.

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