

# **ENVIRONMENTAL TOBACCO SMOKE**

## **A HEALTH HAZARD TO CHILDREN**

### ***INTRODUCTION***

#### ***SLIDE #1***

Thank you for inviting me here to speak about the important issue of secondhand smoke. We hear a lot these days about the addictive qualities of cigarettes, and the health hazards faced by those who smoke cigarettes. But what about the people living with and around those who smoke? Too often those people are children. And too often they face a health hazard of their own. That hazard is secondhand smoke, also known as environmental tobacco smoke.

As a pediatrician, one of the most common illnesses I see in children is ear infections. But I'm here to tell you that many ear infections could be prevented by reducing children's exposure to secondhand smoke.

Today I'll be talking more about what kind of health problems secondhand smoke causes in children...There are quite a few; one of the most serious of which is asthma. I'll also tell you what you can do to make sure your child is kept safe from secondhand smoke.

The presentation I'll give you today comes from a collaboration between the American Academy of Pediatrics (AAP) and the Environmental Protection Agency (EPA). The facts I'll share with you are based on research studies conducted by the National Academy of Sciences, the Surgeon General, the EPA and other scientists.

The Environmental Protection Agency and others have conducted numerous indoor air studies. Those studies show that indoor air can be two-to-five times more polluted than the air outdoors, and under some circumstances, can be as much as a hundred to 1,000 times more polluted. Because Americans spend up to 90-percent of their time indoors, it is important to reduce health risks for us all... and especially for children.

### ***SECONDHAND SMOKE***

Children may be especially vulnerable to secondhand smoke and other environmental pollutants. You see, children are growing and, per pound of weight, drinking more water, eating more food, and breathing more air than adults. Because of this, they may be at higher risk from environmental dangers.

Let's start out with just a few statistics to show us how serious the problem of secondhand smoke is.

### ***SLIDE #2***

A survey conducted by the Centers for Disease Control and Prevention, also known as the CDC, shows that 38 percent of children age two months to five years are exposed to secondhand smoke in their home.<sup>1</sup> Many young children spend a large proportion of their time indoors. That means millions of young children may be spending that time exposed to secondhand smoke.

And what does that exposure lead to? Take a look at this:

### **SLIDE #3**

A study published in the AAP journal, *Pediatrics*<sup>2</sup>, shows that each year... secondhand smoke exposure is linked to:

Up to two million ear infections in children... nearly 530-thousand doctor visits for asthma.... up to 436-thousand episodes of bronchitis in children under five years of age....and up to 190-thousand cases of pneumonia in children under five years of age.

Just what exactly *is* secondhand smoke...What's it made of? Well, how would you feel if I told you that you were breathing in carcinogens such as benzene and nickel. Would you want your children to breathe this stuff? Well, they *are* breathing it, along with carbon monoxide, ammonia and cyanide, when they are exposed to secondhand smoke.

### **SLIDE #4**

Secondhand smoke is a mixture of smoke that is breathed out by a smoker, as well as smoke from the burning end of cigarettes, cigars, or pipes. Secondhand smoke is composed of nearly four thousand different chemical compounds,<sup>3</sup> including the ones I've just mentioned.

Children are certainly among those who may develop health problems associated with secondhand smoke. And these problems can start before a child is even born.

## **SLIDE #5**

When a woman smokes during pregnancy, her unborn child is exposed to chemicals in the smoke. This can be very harmful to the child, and lead to:

- miscarriage
- prematurity
- low birth weight

## **SLIDE #6**

And once born... look at the other problems children may develop if exposed to smoke:

- more upper respiratory infections
- more bronchitis and pneumonia
- more ear infections and hearing problems
- and higher rates of Sudden Infant Death Syndrome, known as SIDS.
- secondhand smoke may cause asthma...

especially in pre-school-aged children... and it causes children who already have asthma to have more attacks with more severe symptoms. Studies show that up to a million asthmatic children have their condition worsened by secondhand smoke.

## **SLIDE #7**

Children of smokers also:

- cough and wheeze more and have a harder time getting over colds
- get more sore throats and colds
- eye irritation and hoarseness

Let me tell you about some studies that bear out what I'm saying.

**SLIDE #8**

Researchers interviewed pregnant women to determine their smoking habits... and then studied hospital admissions for infants younger than one year. The infants whose mothers smoked were 38-percent more likely to be admitted to the hospital for bronchitis and pneumonia than were those whose mothers did not smoke.<sup>4</sup>

**SLIDE #9**

Another study showed that children younger than one year whose mothers smoked were almost four times as likely to be hospitalized as were infants of non-smoking mothers.<sup>5</sup>

**SLIDE #10**

Yet another study showed that infants with two parents who smoked were more than twice as likely to have had pneumonia and bronchitis, as were infants with parents who did not smoke.<sup>6</sup>

Let's take a quick look at ear infections... one of the most common illnesses in children.

**SLIDE #11**

One study looked at children who lived in households where more than three packs of cigarettes were smoked per day. Those children were more than four times more likely to be admitted to the hospital for placement of tympanostomy tubes... or ear tubes... than were children whose parents did not smoke.<sup>7</sup>

## ***SLIDE #12***

Now let's go back to the issue of children with asthma for a minute.

One out of thirteen children in the United States has asthma. Asthma is a chronic disease of the passageways that carry air to the lungs. These "airways" become narrow and the linings become swollen, irritated, and inflamed. This causes labored breathing, coughing, feelings of chest tightness, and shortness of breath. Other symptoms can include wheezing, fast breathing, or difficult breathing that uses extra muscles from the neck, abdomen, and chest... to help draw in air.

## ***SLIDE #13***

Since we spend up to 90 percent of our time indoors, exposure to indoor allergens and irritants can play a significant role in triggering asthma attacks. Some of the most common asthma triggers found indoors include: secondhand smoke, dust mites, animal dander, cockroaches, and mold.

Allergies to dust, animals, pollens, and molds can cause asthma. Children with asthma may also be especially sensitive to irritants like viral infections, cold air, particles or chemicals in the air, and of course, secondhand smoke.

Symptoms of asthma can be different for each person, depending on how often those symptoms occur... or how much or how fast the airways become narrowed. Some children have symptoms of asthma most days and may have to take daily medication... others may just need medication when they have asthma symptoms.

These medicines are effective. But as pediatricians, and as parents, our

obvious goal is to prevent the need for medication, by preventing the asthma in the first place.

One way to prevent asthma attacks is to keep secondhand smoke away from your child.

***SLIDE #14***

Here are some suggestions:

Number one... if you are a smoker... the best thing you can do is quit. I know it won't be easy. Maybe you've tried quitting and couldn't do it. Well it doesn't matter how many times you've tried and failed. Think of it this way. When a child is learning to walk, he stumbles and falls the first few times out. But we don't say, "Oh well, this child can't walk... end of story." We encourage that child to keep trying until he can walk. So keep trying to quit smoking. This time, do it for your child's health... for your child's life. Talk to your child's pediatrician, or your physician, about getting the help you need to quit for good.

Some other advice:

- Until you can quit, choose not to smoke in your home.
- Don't let anyone smoke in your home. Help family members and visitors understand that, for the health of your child, you do not permit smoking. Don't put out any ashtrays... this will discourage people from lighting up. And remember, air flows through a house, so smoking even in one room will allow that smoke to travel throughout the house.
- Don't let anyone smoke in your car. Opening windows is just not enough to clear the air.

- Choose a child care provider who doesn't smoke, and doesn't allow smoking in the house.
- When you are taking your child to public areas like shopping malls, restaurants, and bowling alleys...select non-smoking places and when that option is not available, sit in non-smoking sections.

You can enlist your child's help in these efforts. By taking these steps, you can teach him or her about the health hazards of smoking, and hopefully prevent that child from starting to smoke.

You may think your child is too young to talk to about smoking, but listen to this. In this country, one-hundred thousand children under the age of thirteen smoke.<sup>8</sup> So talk to your child before he or she joins that number. Your child may not be able to comprehend the long-time health risks associated with smoking, so you might want to focus instead on the immediate consequences, like stained teeth and the bad smells that come with smoking.

### **CONCLUSION**

As you can see, secondhand smoke can pose a number of threats to your child's health. But after hearing what I've said here today, I hope you feel that you can do a lot to protect your child from these threats. Do it for your health, and for your *child's* health. As a pediatrician, I'm appealing to you to join me in my most important goal as a health care provider... the goal of prevention. Any illness or injury we can prevent is a health care success story.

Smokers and nonsmokers alike can take further action to help curb the

problem of secondhand smoke. Check with your child's pre-school or and other places he or she visits often... and find out what policies exist to eliminate secondhand smoke... and other indoor air hazards.

***SLIDE #15***

To take the Smoke-Free Home Pledge, call 1-866-SMOKEFREE, or go to the Website at [www.epa.gov/smokefree](http://www.epa.gov/smokefree). For more information on secondhand smoke or other indoor air quality problems, call the EPA's Indoor Air Quality Clearinghouse toll free at 1-800 -438- 4318. They have printed materials they can send you to help you tackle these issues.

Thank you for your time and interest here today. None of us can foresee every possible danger in the world. But it is good to know that parents, or anyone who cares about kids, can take extra steps to safeguard our children's health....against secondhand smoke, and other indoor air pollution problems affecting our children.

## FOOTNOTES

---

<sup>1</sup> Pirkle JL, Flegal KM, Bernert JT, et al. Exposure of the U.S. Population to environmental tobacco smoke: The Third National Health and Nutrition Examination Survey, 1988-1994.

<sup>2</sup> Morbidity and in Children Associated with the Use of Tobacco Products by Other People. Joseph R. DiFranza, MD, *Pediatrics*, 97(4): 560-8, 1996 Apr.

---

<sup>3</sup> National Research Council. "Environmental tobacco Smoke: Measuring Exposures and Assessing Health Effects." Washington, D.C. National Academy Press 1986:337

<sup>4</sup> Harlap S, Davies AM. Infant admission to the hospital and maternal smoking. *Lancet*. 1974;1:529-532

<sup>5</sup> Rantakallio P. Relationship of maternal smoking to the morbidity and mortality of the child up to the age of five. *Acta Paediatr Scand*. 1978;67:621-631

<sup>6</sup> Colley JR, Holland WW, Corkhill RT. Influence of passive smoking and parental phlegm pneumonia and bronchitis in early childhood. *Lancet* 1974;2:1031-1034

<sup>7</sup> Kraemer MJ, Richardson MA, Weiss NS, et al. Risk factors for persistent middle-ear effusion otitis media, catarrh, cigarette smoke exposure and atopy. *JAMA*. 1983;249:1022-1025