

Editorial

Second-hand smoke – ignored implications

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On an average 5.5 minute life is lost with each cigarette smoked. Smokers have ten times risk of acquiring lung cancer, two times risk of myocardial infarction and six times risk of chronic obstructive pulmonary disease (COPD). Economic costs of smoking should not be forgotten as for purchase of cigarettes, direct medical care cost because of smoking and indirect cost as low productivity, work day loss, excess morbidity, premature death, risk of fire at home or work place. ⁽¹⁾

There are two types of tobacco smoke, mainstream smoke which is directly inhaled by the mouth of a smoker and side stream smoke or second-hand smoke or passive smoking which comes from burning tip of cigarette mixed with surrounded air. Second-hand smoke is sometimes referred to environmental tobacco smoke. It is a combination of the smoke exhaled by a smoker and the smoke that comes from the end of a burning cigarette. When someone breathes in this smoke, it is often referred to as passive smoking. ⁽²⁾

Non-Smokers are frequently exposed to smoke when someone nearby is smoking, which exposed the nonsmokers to health hazards. Non-smokers can be exposed to second-hand smoke in public places, such as restaurants, offices, shopping centers, public transportation, cars, parks, schools, and daycare centers etc. If parents or elderly siblings smoke at home, children are frequently exposed and children are especially sensitive to the toxins in second-hand smoke. Second-hand smoke is as toxic as main stream smoke, although people inhale it in more diluted form. It contains carbon monoxide, nitrosamines and ammonia. Second-hand smoke come from all form of smoking e.g. Cigarette, cigar, pipes or water pipe (Shisha) etc. Tobacco smoke has more than 4,000 chemical compounds, at least 250 are known to cause diseases.

Second-hand smoke causes lung cancer in adults who have never smoked. Non-smokers who are exposed to second-hand smoke at home or at work increase their risk of developing lung cancer by 20–30%. Second-hand smoke causes more than 7,300 lung cancer deaths among U.S. nonsmokers each year. As with active smoking, the longer the duration and the higher the level of exposure to second-hand smoke, the greater the risk of developing lung cancer. ⁽⁴⁾

Second-hand smoke causes numerous health problems in infants and children, including more frequent and severe asthma attacks, respiratory infections, ear infections, and sudden infant death syndrome. Some of the health conditions caused by second-hand smoke in adults include coronary heart disease, stroke, and lung cancer. ^(1, 4)

Children are particularly at risk for the effects of second-hand smoke because their bodies are still growing and they breathe at a faster rate than adults. A study revealed that second-hand smoke/passive smoking among children leads to acute respiratory illness in children as pneumonia, bronchitis, middle ear problem, cough & wheeze. Similarly passive smoking among adults leads to eye irritation (69% cases), headaches (33% cases), nasal symptoms (33% cases), cough and allergic attacks (33% cases). ⁽⁶⁾

Exposure to second-hand smoke has immediate adverse effects on the cardiovascular system and can cause coronary heart disease and stroke: ^(2, 4, 5)

1. Second-hand smoke causes nearly 34,000 premature deaths from heart disease each year in the United States among nonsmokers. ⁽⁴⁾
2. Non-smokers who are exposed to second-hand smoke at home or at work increase their risk of developing heart disease by 25–30%. ⁽¹⁾
3. Second-hand smoke increases the risk for stroke by 20–30%. ⁽⁴⁾
4. Second-hand smoke exposure causes more than 8,000 deaths from stroke annually. ⁽⁴⁾

Breathing second-hand smoke can have immediate adverse effects on your blood and blood vessels, increasing the risk of having a heart attack. ^(2, 3, 4)

- a. Breathing second-hand smoke interferes with the normal functioning of the heart, blood, and vascular systems in ways that increase the risk of having a heart attack.

- b. Even brief exposure to second-hand smoke can damage the lining of blood vessels and cause platelets to become stickier. These changes can cause a deadly heart attack.

People who already have heart disease are at especially high risk of suffering adverse effects from breathing second-hand smoke and should take special precautions to avoid even brief exposures.

Preventive strategies includes local, state, and federal authorities to enact public policies to protect people from second-hand smoke and protect children from tobacco-related diseases. One should not wait for the government to act. Even if you smoke, you can decide to make your home and car smoke-free. This makes breathing safer and more enjoyable for children and other family members. One should not smoke in the home or around the young children.

Parents can help protect their children from second-hand smoke by taking the following actions: ⁽⁷⁾

- a. Do not allow anyone to smoke anywhere in your home.
- b. Do not allow anyone to smoke in car, even with the window down.
- c. Make sure children's schools are tobacco-free.
- d. If your state still allows smoking in public areas, look for restaurants and other places that do not allow smoking.

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