



STOP SMOKING FOR BETTER HEALTH— TAKE THE FIRST STEP TODAY

HUMAN RESOURCES - WORKPLACE WELLNESS

HEALTH IMPACTS OF SMOKING AND SECOND-HAND SMOKE

In Canada, smoking remains one of the leading causes of preventable death with 37,000 Canadians dying from smoking related conditions annually (The Lung Association of Ontario, 2018). The inhaled smoke circulates in the human body affecting almost all the organs impacting the health and wellbeing of individuals who smoke. The smoke also affects the health of non-smokers exposed to it. Second-hand smoke is found to have the same chemicals as in the burning tobacco inhaled by the smoker (Canadian Cancer Society, 2020) and causes over 800 deaths every year in Canada from heart disease and lung cancer (Health Canada). This information sheet highlights the health risks of smoking, second-hand smoke and the benefits of quitting.

WHAT IS IN THE CIGARETTE SMOKE?

When tobacco is burnt, over 7000 chemicals are released. At least 70 of these chemicals are carcinogens (substances that cause cancer).

CIGARETTE SMOKE CONTAINS 7000 CHEMICALS, INCLUDING:



ARSENIC

also found in rat poison



ACETONE

also found in nail polish remover



AMMONIA

also found in household cleaners



FORMELDAHYDE

also found in embalming fluid



CARBON MONOXIDE

also found in car exhaust



Canadian Cancer Society (2020);
Health Canada (2019)

EFFECTS OF SMOKING ON HEALTH AND WELLBEING

Smoking has both short and long-term health effects. Within minutes of smoking a cigarette, the individual's blood pressure and heart rate increase, their body temporarily stops absorbing nutrients, and their ears and sinuses fill up with fluid.

The short-term effects of smoking include:

- Bad breath
- Fatigue and decreased energy
- Reduction in the senses of taste and smell
- Coughing, sore throat and shortness of breath
- Nausea, vomiting and abdominal cramping
- Dizziness, light-headedness, and headache

Long term, smoking has been linked to more than two dozen diseases and conditions that can lead to disability and premature death:

- Smoking can have devastating effects on the lungs, leading to chronic obstructive pulmonary disease (COPD)
- Smoking can increase the risk of developing 16 different types of cancer (Canadian Cancer Society, 2020).
- Tobacco use accounts for 30% of all cancer related deaths and is the cause of 85% of lung cancer cases (Lung Cancer Canada).



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Some of the health risks for individuals who smoke are outlined below:

RISK #1 Heart disease

Smoking constricts the blood vessels in the body, which increases blood pressure and forces the heart to work harder to pump blood. It also damages the lining of the arteries, causing a build-up of fatty material, which further narrows the arteries and restricts the blood flow. This can result in angina (chest pain) and increases the risk of developing heart disease.

When a person smokes, the level of carbon monoxide (a poisonous gas) elevates and the amount of oxygen in the blood decreases, which adds stress on the heart muscle, increasing the risk of having a heart attack.

RISK #2 Lung and respiratory disease

Smoking cigarettes is the leading cause of lung cancer in Canada, increasing the risk of developing lung cancer by 20 times compared to a non-smoker (Canadian Cancer Society, 2020).

Cigarette smoke can damage your airways and can increase the risk of developing chronic bronchitis (long-lasting/reoccurring infection), emphysema (a buildup of fluid in the lungs) and can also lead to reduced lung capacity. Over time, it can become harder for the individual who smokes to take a full breath of air and lead to feeling out of breath and fatigued.

Smoking can also worsen pre-existing asthma.

RISK #3 Cancer

In addition to lung cancer, smoking can increase the risk of developing 16 other types of cancer (Canadian Cancer Society, 2020), including

- Mouth, nose and throat cancer
- Esophageal and stomach cancer
- Kidney and bowel cancer
- Pancreatic cancer
- Liver cancer
- Cervical and ovarian cancer
- Bladder cancer

In addition to the health risks outlined above, people who smoke are at an increased risk for chronic health complications such as, diabetes, sleep apnea and reproductive health issues including infertility in both men and women.

EFFECTS OF SECOND-HAND SMOKE ON HEALTH AND WELLBEING

Second-hand smoke (also known as passive, involuntary or environmental tobacco smoke) comes from burning tobacco products such as cigarettes, cigars, pipes, hookah and e-cigarettes, either through excess burn off from someone else's device/cigarettes or the smoke that the individual who smokes exhales.

There is no safe level of second-hand smoke exposure as it contains many of the same chemicals as those inhaled by the smoker (Health Canada, 2011). Individuals exposed to second-hand smoke are at an increased risk for:

- Heart problems
- Lung cancer
- Breathing problems such as asthma
- Excessive coughing
- Throat irritation
- Premature death

Individuals with pre-existing heart and lung conditions may experience worsening of their conditions if they inhale second-hand smoke. The nicotine and other chemicals combined with increased carbon monoxide and lower oxygen levels in the air can irritate lungs, making it more difficult to breathe and force the heart to work harder.

DID YOU KNOW?

2/3 of tobacco smoke is found in the air surrounding the smoker.

Health Canada (2019)



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The following table highlights some of the health risks associated with exposure to second-hand smoke for women who are pregnant, children and infants.

Segment of the POPULATION	EXAMPLES OF HARMFUL EFFECTS
Pregnant women	Harsh chemicals such as nicotine are carried through the mother's blood stream to the unborn baby, thus increasing the risk of complications, including premature delivery, having a low birth weight baby, miscarriage and stillbirth.
Children	Because the respiratory and immune systems of children are still developing, they are more susceptible to the risks of second-hand smoke including asthma attacks, pneumonia, bronchitis, ear infections caused by the shifting of fluid in the sinuses and inner ear.
Infants	Exposure to second-hand smoke can affect the development of an infants' brain. Infants exposed to second-hand smoke or whose mother smoked during pregnancy are at an increased risk for sudden infant death syndrome (Health Canada).

In addition to humans, second-hand smoke can also have negative impact on pets (dogs, cat, birds, etc.) and increase their risk of developing cancer and various respiratory illnesses. Not only do animals inhale the second-hand smoke but they are also exposed to what is described as third-hand smoke (the residue that is left on the walls, clothing and furniture) when they groom themselves.

HEALTH BENEFITS OF QUITTING

Studies have outlined that as soon as a person quits smoking their body starts to renew itself, reducing the risk of developing heart disease, cancer, breathing problems and increasing life expectancy. The diagram to the right highlights the health benefits after quitting.

Even individuals who have developed smoking-related chronic diseases by the time they quit can benefit from quitting. For example, compared to continuing to smoke, those who quit after having a heart attack may reduce their chances of having another heart attack by as much as 50% (Health Canada).

Other health benefits include a broken nicotine addiction cycle, improved taste and smell, more energy, a boost to the immune system and cleaner teeth and mouth. It is never too late to quit smoking for better health.



20 MINUTES AFTER QUITTING:
Your blood pressure and pulse rate will return to normal.



8 HOURS AFTER QUITTING:
You will notice that you can breathe easier. Your oxygen levels will be back to normal and your chance of having a heart attack will decrease.



24 HOURS AFTER QUITTING:
Your lungs will start to clear out the mucus. All that coughing will be a good sign.



48 HOURS AFTER QUITTING:
You will be nicotine-free. Your senses of taste and smell will improve so you will probably start to enjoy food more.



72 HOURS AFTER QUITTING:
You will have more energy. Your lung capacity will increase and your bronchial tubes will relax, so breathing and exercising will get easier.



1 YEAR AFTER QUITTING:
Your risk of having a heart attack will drop by 50%



10 YEARS AFTER QUITTING:
Your risk of dying from lung cancer will be cut in half.



10-15 YEARS AFTER QUITTING:
Your risk of coronary heart disease will be the same as the risk for someone who has never smoked.



Source: Canadian Cancer Society (smokershelpline.ca)

Quitting smoking can have significant positive effects not only on your health but also on the wellbeing of others around you. For more information, or for a listing of the sources consulted to write this publication, please visit:

UWINDSOR.CA/WORKPLACEWELLNESS



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