# facts on

# For More Information Contact:

1319 Colony Street Saskatoon, SK S7N 2Z1 Bus. 306.651.4300 Fax. 306.651.4301 info@skprevention.ca www.skprevention.ca

# The Saskatchewan Prevention Institute is supported by:

Government of Saskatchewan Kinsmen Telemiracle Foundation Saskatchewan Abilities Council University of Saskatchewan Community-At-Large

# Smoking and Environmental Tobacco Smoke (ETS)

Smoking and Environmental Tobacco Smoke (ETS) negatively affect a woman's health before becoming pregnant. During pregnancy, smoke can be harmful to both the woman and her unborn baby. After birth, the effects of ETS continue to harm the health of children, as well as their mothers.

### **Types of Smoke**

- Mainstream Smoke is the smoke inhaled by the smoker.
- Sidestream Smoke is smoke from the burning end of a cigarette, pipe or cigar.
- Exhaled Smoke is smoke exhaled by the smoker.

### What's in Tobacco Smoke?

Tobacco smoke contains over 4,000 harmful substances, including carbon monoxide, nicotine, tar, ammonia, arsenic, cyanide, and lead. Nicotine, for example, causes blood vessels to constrict, reducing blood flow. Carbon monoxide decreases oxygen intake which reduces the amount of oxygen delivered to the heart, other body tissues and, for a pregnant woman, to her unborn baby. Of the 4,000 chemicals in tobacco smoke, 50 are associated with causing cancer and promoting tumour growth.

### Second-Hand and Third-Hand Exposure

- Second-hand exposure refers to the direct inhalation of smoke from tobacco products used by others.
- Third-hand exposure refers to the chemical residue from tobacco smoke that remains in the environment after smoking ceases. For example, chemical residue on clothes.

### **Hazards of ETS**

When non-smokers breathe in ETS or are exposed to the chemical residue of tobacco smoke, they are passively smoking. Brief periods of exposure to ETS may produce headaches, eye, nose and throat irritation, coughing and wheezing, dizziness and nausea, as well as stress to the heart and blood vessels. ETS also aggravates the symptoms of people with allergies, asthma and other respiratory and heart disorders. Long-term exposure has been linked to heart and respiratory diseases, stroke, ulcers, and many forms of cancer.

### **Pregnant Women**

Smoking and exposure to ETS also have effects on women's reproductive health. Women who smoke have increased risk for cancer of the cervix, endometrium and urinary tract. Smoking and exposure to ETS are related to reduced fertility and earlier menopause. Smokers, on average, reach menopause two years earlier than nonsmokers.

### **Pregnancy Complications**

Smoking and exposure to ETS increase a woman's risk of complications during pregnancy. These complications also affect the health of the fetus. Pregnancy complications include:

- Miscarriage
- Ectopic (Tubal) Pregnancy
- Placenta Previa
- Abruptio Placenta
- Premature Rupture of the Membranes
- Pre-eclampsia or Gestational Hypertension (toxemia of late pregnancy)

A pregnant woman who smokes, like all smokers, is at a higher risk for delayed wound healing following surgery and/or caesarian delivery than one who does not smoke. This is due to the negative effects of smoking on tissue oxygenation, heart rate, airway clearance, immune response, and circulation.

### **Newborns**

Babies born to smokers are, on average, about 200 grams (1/2 pound) lighter than babies born to non-smokers. There is also evidence that non-smoking mothers who are exposed to ETS give birth to smaller babies than non-exposed mothers.

The baby exposed to tobacco smoke before birth is at higher risk for:

- Low Birth Weight and Premature Birth
- Damaged Lungs
- Death

### Infants and Children

Infants and children are particularly vulnerable to the effects of ETS because they are still maturing physically and mentally. Children breathe faster than adults. They inhale more air relative to their body weight. Their lungs are still growing and developing.

Infants and children who are exposed to ETS are at greater risk for:

- Sudden Infant Death Syndrome (SIDS)
- Increased Infection and Illness
- Ear Infections (otitis media)
- Enlarged Adenoids
- Asthma
- Respiratory Infections
- Allergies
- Respiratory Symptoms
- Developmental and Behavioural Problems

### Clearing the Air

Children can be exposed to smoke in the home, workplaces, public facilities, and outdoors. In Canada, 900,000 children under age 12 are regularly exposed to ETS in their homes. Twenty-five percent of families with children under age 12 expose their children to ETS at home. For working women, on-the-job exposure to ETS can be four times higher than in the home.

The only way to eliminate Environmental Tobacco Smoke is to remove the source. Prohibit smoking in the workplace and indoor public places. Maintain a smoke-free home.

Air "purifiers" and electronic filters may remove some smoke particles from the air, but they cannot remove those that have settled on food, skin and other surfaces. Increasing ventilation will dilute the smoke but will not remove it completely or make it safe, since there is no known safe level of exposure to carcinogens. Restricting smokers to separate rooms will work only if these rooms have their own ventilation systems.

### Steps to Take

There are steps that people can take to protect pregnant women and children from ETS.

- Try to quit smoking.
- Keep a smoke-free home by restricting smoking to the outdoors.
- Avoid taking children to public places and homes where they would be exposed to ETS. Pregnant women should try to avoid the same places.
- Avoid smoking in the presence of pregnant women and children.
- Support non-smoking by-laws in all workplaces and public places, especially where children are likely to be.
- Encourage people who work with children to set a non-smoking example not to smoke when children are present, and ensure that smoking materials are kept out of the reach of children.
- Promote non-smoking as the norm.
- Help people understand second and third-hand smoke exposure.

For more information about tobacco smoke and the risk to unborn babies, pregnant women and children, contact the Saskatchewan Prevention Institute.

## Information for this fact sheet was adapted from:

Saskatchewan Prevention Institute. Tobacco Smoke: The Risk to Unborn Babies, Pregnant Women and Children. Saskatoon, SK. 2002.

saskatchewan
preventioninstitute
our goal is healthy children