

# MAKE SMOKING HISTORY<sup>®</sup>

## The health effects of smoking

Tobacco smoking is a significant risk factor for a range of disabling and fatal conditions. It harms nearly every organ of the body, causing many diseases and reducing the health of smokers in general.<sup>1</sup> There are high risks of smoking even for so-called 'social smokers' with a major Norwegian study finding that smoking just one to four cigarettes a day can be deadly in the long term, almost tripling a person's risk of dying from heart disease or lung cancer.<sup>2</sup> There is no such thing as a safe cigarette or a safe level of smoking.

### Cancer

All smokers face an increased risk of cancer. Those directly attributable to smoking include cancers of the lung, oral cavity, pharynx (throat), larynx (voice-box), oesophagus, stomach, pancreas, bladder, kidney, and acute myeloid leukaemia (which affect the blood and bone marrow).<sup>1</sup> Smoking is also a risk factor for developing anal cancer.<sup>3,4</sup> For sex-specific cancers linked to smoking, see health effects for men and women.

### Cardiovascular disease

Smoking causes coronary heart disease (also called ischaemic heart disease), cerebrovascular disease (stroke) and atherosclerotic peripheral vascular disease (PVD). PVD most commonly occurs in the legs and feet, but can also develop in the arms and hands, and can result in gangrene or amputation.<sup>5</sup> Smokers are at increased risk of abdominal aortic aneurysm, which is frequently fatal, as well as sudden cardiac death which can occur even when there is no previous history of heart trouble.<sup>5</sup> Smoking is both a contributing factor to the key disease processes leading to congestive heart failure as well as an independent risk factor for this condition.<sup>5</sup>

### Respiratory diseases

Smoking causes chronic obstructive pulmonary disease (COPD, commonly known as chronic bronchitis and emphysema) and acute respiratory illnesses such as pneumonia.<sup>5</sup> A number of major respiratory symptoms in adults result from smoking, including coughing, phlegm, wheezing and dyspnoea (difficulty in breathing).<sup>1</sup> Smoking is also associated with poor asthma control.<sup>1</sup>

### Specific health effects for men

Men who smoke may experience some additional sex-specific health effects such as decreased semen volume and sperm number, and increased sperm abnormalities; however further research is required in this area.<sup>1</sup> Men who smoke are also at increased risk of erectile dysfunction (i.e. impotence).<sup>5</sup>

### Specific health effects for women

Cigarette smoking places women at greater risk of a number of sex-specific health problems. Smoking is a cause of cervical cancer<sup>1</sup> and may also increase the risk of vulvar cancer.<sup>6</sup> Women who smoke and use the contraceptive pill are at greater risk of coronary heart disease.<sup>6</sup> Smoking can lead to delayed conception and reduced fertility.<sup>6</sup> Studies

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suggest smoking may affect menstrual function, increasing the risk of dysmenorrhoea (painful periods), secondary amenorrhoea (where menstruation ceases) and irregularity.<sup>6</sup> There is also greater risk of earlier menopause or more menopausal symptoms.<sup>6</sup>

Smoking in pregnancy is associated with low birth weight, premature birth, perinatal death (both stillbirth and newborn deaths) and sudden infant death syndrome (SIDS).<sup>6</sup> Women who smoke whilst pregnant may also be at increased risk of miscarriage and ectopic pregnancy.<sup>6</sup>

Women who smoke are less likely to breastfeed and more likely to wean their baby earlier.<sup>5</sup> Smoking also appears to have a direct negative effect on breast milk quality and the quantity produced.<sup>5</sup>

## Some other health effects

- It has been found that smoking causes diminished health status which can result in increased absenteeism from work and increased use of medical services.<sup>1</sup>
- Smoking is a major risk factor for age-related macular degeneration (AMD) and a cause of eye cataracts.<sup>1</sup> Both are leading causes of blindness.<sup>1</sup>
- Increased facial wrinkling, altered complexion colour and loss of skin elasticity have been attributed to smoking.<sup>5</sup>
- Smokers are more likely to develop abdominal obesity. A recent Finnish study found that smoking in adolescence appears to make smokers twice as likely to develop abdominal obesity in adulthood, and is a risk factor for being overweight in women.<sup>7</sup>
- Smoking is a cause of periodontitis (disease affecting gum and bone surrounding teeth).<sup>1</sup>
- People who smoke are of increased risk of experiencing adverse surgical outcomes related to wound healing and respiratory complications.<sup>1</sup>
- There is evidence that smoking is a cause of hip fractures and, in postmenopausal women, low bone density.<sup>1</sup>

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<sup>1</sup> US Department of Health and Human Services. *The health consequences of smoking: a report of the Surgeon General*. Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2004.

<sup>2</sup> Bjartveit B, Tverdal A. Health consequences of smoking 1-4 cigarettes per day. *Tob Control*. 2005;14:315-20.

<sup>3</sup> Uronis H, Bendell J. Anal Cancer: An Overview. *The Oncologist*. 2007;12:524-534.

<sup>4</sup> Cancer Research UK. Risks and causes of anal cancer [homepage on the internet]. c2009 [updated 2009 January 6; cited 2009 January 15]. Available from <http://www.cancerhelp.org.uk/type/anal-cancer/about/risks-and-causes-of-anal-cancer>.

<sup>5</sup> Scollo MM, Winstanley MH, editors. *Tobacco in Australia: facts and issues*. 3rd ed. Melbourne: Cancer Council Victoria; 2008.

<sup>6</sup> US Department of Health and Human Services. *Women and smoking: A report of the Surgeon General*. Washington: Department of Health and Human Services, Centers for Chronic Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2001.

<sup>7</sup> Saarni SE, Pietiläinen KH, Kantonen S, Rissanen A, Kaprio J. Association of smoking in adolescence with abdominal obesity in adulthood: a follow-up study of 5 birth cohorts of Finnish twins. *Am J Public Health*. 2009;99(2):348-354.