



Fact sheet

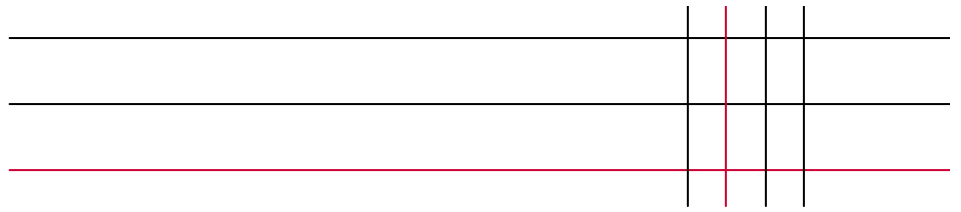
## Tobacco, Heart Disease and Stroke

***Cardiovascular disease (CVD) is a leading cause of death in both developed and developing countries. One out of three deaths across the world are now due to heart disease and stroke<sup>1</sup>.***

***Today, 80% of CVD deaths occur in low and middle-income countries.***

***Smoking is a major cause of death from cardiovascular disease<sup>2</sup>.  
It accounts for about 20% of cardiovascular deaths.***

- Risks are increased for coronary heart disease, including sudden death, cerebrovascular disease and peripheral vascular disease as aortic aneurysm.
- **Excess mortality** from **cardiovascular** disease is **two times higher** among smokers compared to non-smokers<sup>3</sup>.
- Smoking increases the risk of developing **coronary heart disease** in men and women. Several epidemiological studies have demonstrated an almost linear relationship between smoking and coronary heart mortality and morbidity, the risk being more than two fold and most pronounced in younger individuals<sup>4</sup>.
- Relative risk of **myocardial infarction** increased with tobacco consumption in both men and women and is higher in inhalers than in non-inhalers. The risk is higher in women than in men and does not depend on age<sup>5</sup>.
- Female smokers who take a **birth control pill** are about 20% to 40% more likely to develop coronary heart disease than female smokers who do not take the pill <sup>6</sup>.
- Smokers have a fourfold risk of **stroke** compared with people who have never smoked cigarettes<sup>7</sup>.

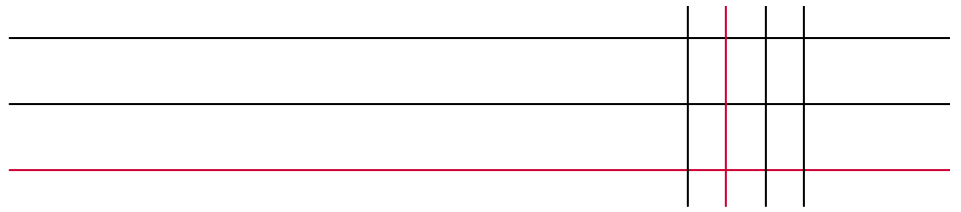


- Among women, stroke is more likely to occur in smokers than non-smokers and the use of both cigarettes and oral contraceptives greatly increases the risk.
- Cigarette smoking increases the risk of complications for hypertensives, including the development of nephrosclerosis and progression to malignant hypertension.
- The risk of cardiovascular disease is roughly proportional to cigarette consumption and the risk persists even at low level of smoking, that is, one to two cigarettes per day.

### ***Passive smoking is a cause of cardiovascular disease***

- Recent studies have shown that environmental tobacco smoke is a risk factor for **ischemic heart disease**. Passive smoking increases the coronary death rate among never smokers by 20% to 70%<sup>8</sup>.
- Non-smokers who breathe second-hand smoke have a relative risk of **coronary heart disease** of 1.25 as compared with non-smokers not exposed to smoke<sup>9</sup>. The British Medical Journal reports that women in the Xi'an province in China have a 24 per cent increased incidence of CHD if their husband smokes and an 85 per cent increased incidence if they were exposed to passive smoke at work.
- Passive smokers have a significantly increased risk of **stroke**<sup>7</sup>
- Passive smoking may cause dysfunction of the coronary circulation in non-smokers
- Increased risk for **myocardial infarction** related to environmental tobacco smoke exposure has previously been reported. The odds ratio is 1.58 for an average daily exposure of 20 cigarettes or more at home. The intensity of home exposure and time since last exposure are important<sup>10</sup>.





**Both men and women can reduce their risk of cardiovascular disease through smoke-free living.**

- The state of health begins to improve immediately after quitting as the risk of heart attack reduces considerably already during the first 1-2 years.
- According to the WHO, one year after quitting the risk of CHD decreases by 50 percent, and within 15 years the relative risk of dying from CHD for an ex-smoker approaches that of a long-time smoker.
- According to several studies five years after quitting, the former smoker has no higher risk of stroke than the non-smoker<sup>11</sup>.

**Source:**

<sup>1</sup> WHO, World Health Report 2000

<sup>2</sup> US Department of Health and Human Services. Reducing the health consequences of smoking: 25 years of progress. A report of the Surgeon General, 1989. Rockville, Maryland: Public Health Service, Centers for Disease Control, Office on Smoking and Health, 1989.

<sup>3</sup> Doll R, et al. Mortality in relation to smoking: 40 years' observations on male British doctors. BMJ 1994; 309: 901-911.

<sup>4</sup> Tidsskr Nor Laegeforen 2001 May 30;121(14):1710-2.

<sup>5</sup> BMJ 1998; 316:1043-1047

<sup>6</sup> Owen-Smith V, Hannaford PC, Warskyj M, et al. J Epidemiol Community Health 1998; 52: 420-4, Croft P, Hannaford PC. BMJ 1989; 298:165-8.

<sup>7</sup> Bonita R et al. Tob Contol 1999;156-160.

<sup>8</sup> JAMA 2001 Jul 25;286(4):436-41.

<sup>9</sup> Jiang He et al. Passive smoking and the risk of coronary heart disease-A meta-Analysis of Epidemiologic studies. 1999,12,340:920-6.

<sup>10</sup> Epidemiology 2001 Sep;12(5):558-64.

<sup>11</sup> Smoking and stroke : a causative role by Aldoori MI, Rahman SH. BMJ 1998;317:962-3.

