

- Introduction
- Deaths caused by smoking
- Non fatal diseases
- Resources

Smoking statistics: Illness and death

www.ash.org.uk

enquiries@ash.org.uk

Telephone: 020 7739 5902

Introduction Smoking is the primary cause of preventable illness and premature death, accounting for 81,400 deaths in England in 2009.¹ Smoking harms nearly every organ of the body and dramatically reduces both quality of life and life expectancy. Smoking causes lung cancer, respiratory disease and heart disease as well as numerous cancers in other organs including lip, mouth, throat, bladder, kidney, stomach, liver and cervix. The 2010 US Surgeon General report, 'How Tobacco Smoke Causes Disease', concludes that "*there is no risk-free level of exposure to tobacco smoke, and there is no safe tobacco product.*"²

The World Health Organization estimates that the global yearly death toll as a result of tobacco use is currently 6 million (including exposure to secondhand smoke).³ This is expected to rise to 7 million by 2020 and to more than 8 million a year by 2030.^{4 5} It is predicted that by the end of the 21st century, tobacco will have killed one billion people.

For every death caused by smoking, approximately 20 smokers are suffering from a smoking related disease.^{6 2} In England it is estimated that in 2008-09, 462,900 NHS hospital admissions were attributable to smoking.⁷ Estimates of the cost of smoking to the National Health Service range from £2.7 billion⁸ to £5.2bn a year.⁹

Deaths caused by smoking Smoking is the leading cause of preventable death and disease in the UK. About half of all life-long smokers will die prematurely, losing on average about 10 years of life.¹⁰ Smoking kills more people each year than the following preventable causes of death combined: [figures for England except HIV which is for UK]

- obesity (34,100)¹¹
- alcohol (6,541)¹²
- traffic accidents (2,502)¹³
- illegal drugs (1,738)¹⁴
- HIV infection (529)¹⁵

Most smoking-related deaths are from one of three types of disease: lung cancer, chronic obstructive pulmonary disease (COPD which incorporates emphysema and chronic bronchitis) and coronary heart disease (CHD). In 2010, there were a total of 450,571 deaths of adults aged 35 and over in England of which 81,700 (18%) were estimated to be attributable to smoking.⁷

Of these smoking caused:

- 35% (22,300) of all respiratory deaths
- 29% (37,500) of all cancer deaths
- 14% (20,600) of all cardiovascular disease deaths

Estimated percentages and numbers of deaths attributable to smoking in England by cause, 2010 ⁷

	Deaths estimated to be caused by smoking					
	Number of deaths			% of deaths		
	All deaths	Men	Women	Total	Men	Women
Cancer						
Lung, Trachea and Bronchus	28,044	13,800	9,200	23,100	88	75
Oesophagus	6,199	2,900	1,300	4,200	71	62
Bladder	4,131	1,300	400	1,700	46	31
Pancreas	6,587	800	900	1,700	24	27
Upper respiratory sites	1,818	900	300	1,200	74	51
Stomach	4,041	700	200	900	27	13
Kidney	3,357	700	100	800	36	9
Larynx	601	400	100	500	82	76
Myeloid leukaemia	2,268	300	100	400	23	10
Cervical	699		100	100		12
Unspecified site	8,075	2,100	1,000	3,000	55	23
All Cancer	65,820			37,500		
Respiratory						
Chronic obstructive lung disease*	22,346	9,400	8,400	17,800	85	80
Pneumonia	23,565	2,400	2,100	4,500	24	15
All Respiratory	45,911			22,300		
Circulatory						
Ischaemic heart disease	65,128	6,200	3,100	9,400	16	11
Aortic aneurysm	6,456	2,500	1,500	4,000	64	58
Cerebrovascular disease	40,374	1,900	1,400	3,400	12	6
Other heart disease	23,593	1,900	1,500	3,400	19	11
Other arterial disease	2,511	200	300	500	18	19
Atherosclerosis	374	0	0	100	29	13
All Circulatory	138,436			20,600		
Digestive						
Stomach and duodenal ulcer	2,340	600	600	1,200	54	47
All deaths	255,801					
Total caused by smoking		49,000	32,700	81,700		

*ICD codes J40-J44 which includes bronchitis, emphysema and other chronic obstructive lung disease. The proportion of deaths attributable to smoking is the median (mid-point) between the highest and lowest estimates for this group of diseases.

Non fatal diseases

There are many medical conditions associated with or aggravated by smoking, which may not be fatal but still cause years of debilitating illness. These include:¹⁶

Smokers are at increased risk of:

Heart and circulation

- Angina
- Buerger's Disease (severe circulatory disease)
- Peripheral vascular disease

Diseases of the gums and teeth

- Acute necrotizing ulcerative gingivitis (gum disease)
- Tooth loss
- Tooth discolouration

Eyes

- Cataract
- Macular degeneration
- Nystagmus (abnormal eye movements)
- Optic neuropathy (loss of vision)
- Ocular histoplasmosis (fungal eye infection)
- Tobacco Amblyopia (loss of vision)

Diseases that can be significantly aggravated by smoking

- Asthma
- Common cold
- Crohn's disease (chronic inflamed bowel)
- Chronic rhinitis (inflammation of nose)
- Diabetic retinopathy (eye disease)
- Graves' disease (over-active thyroid gland)
- Influenza
- Multiple sclerosis
- Optic neuritis
- Tuberculosis

Reproductive functions affected by smoking

- Female fertility (30% lower)
- Menopause (onset 1.74 years earlier on average)

Stomach/digestive system

- Colon polyps
- Crohn's disease (chronic inflamed bowel)
- Duodenal ulcer
- Stomach ulcer

Ligaments, muscles and bones

- Ligament, tendon and muscle injuries
- Neck and back pain
- Osteoporosis (in both sexes)
- Rheumatoid arthritis (in heavy smokers)¹⁷

Skin

- Psoriasis
- Skin wrinkling

Other

- Depression
- Hearing loss
- Type 2 Diabetes

Resources For information about tobacco use and related harm at local level in England, please refer to the [Tobacco Profiles](#), published by the Association for Public Health Observatories.

The American Cancer Society produces a global [Cancer Atlas](#) which has a chapter on [Tobacco](#). The Centers for Disease Control and Prevention in the United States has produced an [interactive version of the Atlas](#)

For more on deaths in the UK and worldwide: www.deathsfromsmoking.net

References

- 1 Healthy Lives, Healthy People: A Tobacco Control Plan for England. HM Government 2011. [Download report](#)
- 2 U.S. Department of Health and Human Services. How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease: A Report of the Surgeon General. Atlanta, GA: U.S. 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, 2010. [Download report](#)
- 3 World No Tobacco Day 2011 celebrates WHO Framework Convention On Tobacco Control. WHO press release 31 May 2011 <http://www.who.int/tobacco/wntd/2011/en/>
- 4 WHO report on the global tobacco epidemic, 2008. The MPOWER package. World Health Organization, 2008. <http://www.who.int/tobacco/mpower/en/>
- 5 World Lung Foundation and American Cancer Society. The Tobacco Atlas. 3rd Edition. 2010. [View Atlas](#).
- 6 Cigarette smoking-attributable morbidity – United States, 2000. MMWR Weekly Report. 5 Sep. 2003
- 7 Statistics on Smoking, England 2011. The NHS Information Centre for Health and Social Care. 2011. <http://www.ic.nhs.uk/pubs/smoking11>
- 8 Callum C, Boyle S, Sandford A. Estimating the cost of smoking to the NHS in England and the impact of declining prevalence. Health Economics Policy & Law. 2010 doi:10.1017/S1744133110000241
- 9 Allender, S et al. The burden of smoking-related ill health in the United Kingdom. Tobacco Control 2009; 18: 262-267
- 10 Doll R, Peto, R, Boreham & Sutherland I. Mortality in relation to smoking: 50 years' observations on male British doctors. BMJ 2004; 328: 1519 <http://www.bmj.com/content/328/7455/1519.long>
- 11 Statistics on obesity, physical activity and diet: England, 2011. Information Centre for Health and Social care, 2011 http://www.ic.nhs.uk/webfiles/publications/003_Health_Lifestyles/opad11/Statistics_on_Obesity_Physical_Activity_and_Diet_England_2011_revised_Aug11.pdf
- 12 Statistics on Alcohol: England, 2009. Information Centre for Health and Social Care, 2011 <http://www.ic.nhs.uk/webfiles/publications/alcoholeng2009/Final%20Format%20draft%202009%20v7.pdf>
- 13 Road casualties – English Local authority Tables: 2007. Dept for Transport <http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/excel/173025/221412/221549/228019/416630/gordistrictlevel07.xls#Tab2.1abc!A42>
- 14 Source: Statistics on Drug Misuse, England - 2010 Report. Information Centre for Health and Social care, 2011. <http://www.ic.nhs.uk/pubs/drugmisuse10>
- 15 AVERT website. "HIV and AIDS in the UK: the current situation" <http://www.avert.org/aids-uk.htm>
- 16 Cigarettes: what the warning label doesn't tell you. American Council on Science and Health, 1997.
- 17 Hutchinson, D et al. Annals of Rheumatic Diseases 2001; 60: 223-7