

# Melanoma

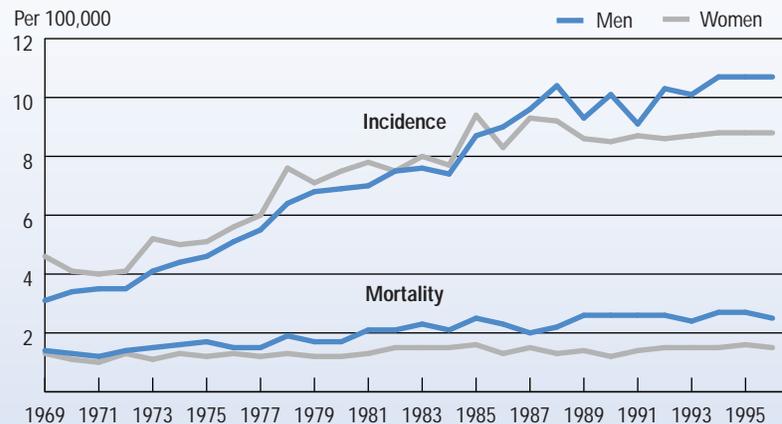
by Leslie A. Gaudette and Ru-Nie Gao

Cancer is one of the leading causes of death in Canada, second only to cardiovascular disease. In 1998, an estimated 62,700 Canadians died from the various forms of this disease. One of the most rapidly increasing forms of cancer is melanoma, the most serious type of skin cancer. An estimated 3,150 new cases of melanoma were diagnosed in 1998, representing just over 2% of all new cancer cases; a total of 740 people died from melanoma, accounting for 1% of all cancer deaths. Since exposure to ultraviolet light is a major factor related to melanoma, there is concern that incidence rates may continue to rise due to the predicted depletion of the Earth's protective ozone layer, which filters the harmful UV radiation emitted by the sun.

However, after rising during the 1970s and 1980s, the incidence of melanoma has leveled off in recent years. Among men, the rate has been relatively flat since the late 1980s,

while among women, it has actually declined slightly since the mid-1980s. In fact, the incidence rate is now about 10% higher for men than for women. This contrasts with much

## CST Incidence rates for melanoma have levelled off in recent years



Note: Rates are age-standardized to the 1991 Canadian population.  
Source: National Cancer Incidence Reporting System, Canadian Cancer Registry, Canadian Vital Statistics Data Base.

## CST What is melanoma?

Melanoma is a cancer of the cells that colour the skin (melanocytes) and can occur in other organs of the body. It is by far the most serious type of skin cancer compared to the more common forms that occur in the basal and squamous cells of the epidermis. According to the Canadian Cancer Society, warning signs of melanoma include changes in the size, shape or colour of a mole; a sore that does not heal; or patches of skin that bleed, ooze, swell, itch or become red or bumpy. Once considered a near-

lethal disease, survival rates for melanoma five years after diagnosis are now relatively high: 88% for women and 74% for men.

To reduce the risk of skin cancer, the Canadian Cancer Society recommends reducing sun exposure between 11:00 a.m. and 4:00 p.m.; seeking shade; wearing clothing that covers arms, legs and trunk; and wearing a sun hat, sunglasses and sunscreen. It also advises keeping young babies under a year old out of the sun.



During 1989-1993, the highest incidence rates for melanoma were found in British Columbia and Nova Scotia

	Incidence rate		Mortality rate	
	Men	Women	Men	Women
	Per 100,000			
<b>Canada</b>	<b>9.8</b>	<b>8.7</b>	<b>2.5</b>	<b>1.4</b>
Newfoundland	4.9	7.0	1.0	0.4
Prince Edward Island	12.3	11.5	3.6	1.1
Nova Scotia	12.7	11.5	3.1	1.1
New Brunswick	10.9	10.4	3.0	1.0
Quebec*	4.8	4.4	1.8	1.2
Ontario	12.1	9.8	3.0	1.6
Manitoba	9.2	9.1	1.9	1.3
Saskatchewan	10.5	9.3	2.2	1.3
Alberta	10.1	9.9	2.5	1.4
British Columbia	12.4	12.2	2.8	1.7
Yukon	8.1	2.8	5.7	--
Northwest Territories	3.0	6.5	3.0	--

Note: Rates are age-standardized to the 1991 Canadian population.

-- Data not available.

\* Quebec has a somewhat lower incidence rate due in part to an incomplete registration of new cases.

Source: National Cancer Incidence Reporting System, Canadian Cancer Registry, Canadian Vital Statistics Data Base.

of the previous quarter century, when women were more likely than men to be diagnosed with melanoma. Age-standardized mortality rates in 1996 have also tended to level off since the mid- to late 1980s.

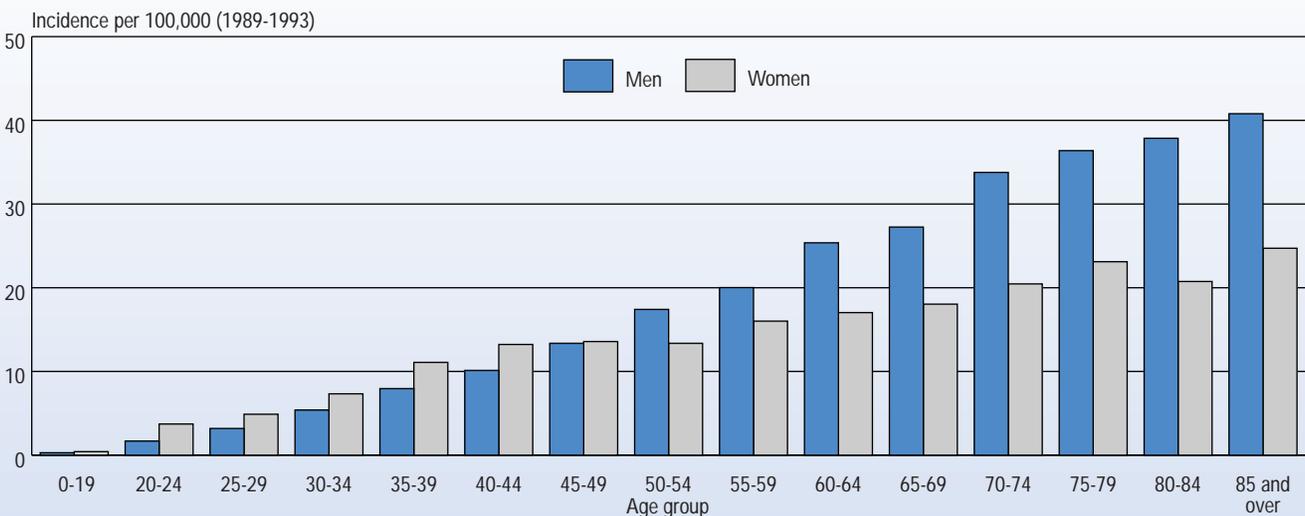
Both incidence and mortality rates for melanoma have declined since 1985 among younger Canadians, and increased among older age groups. For men, incidence rates have been falling for those under 50 and rising for those age 50 and over; the same fall and rise is observed among women on each side of age 60. The pattern for mortality rates is somewhat similar, with both men and women aged 30 to 39 experiencing particularly large declines.

**Are sun protection measures paying off?**

It is well-established that sunburns during childhood may initiate the development of melanomas which appear later in life. Sun exposure can also play a role in promoting its development among adults. Data from the 1996 Sun Exposure Survey indicate that many Canadians have now adopted a variety of strategies to reduce this risk by protecting themselves from the



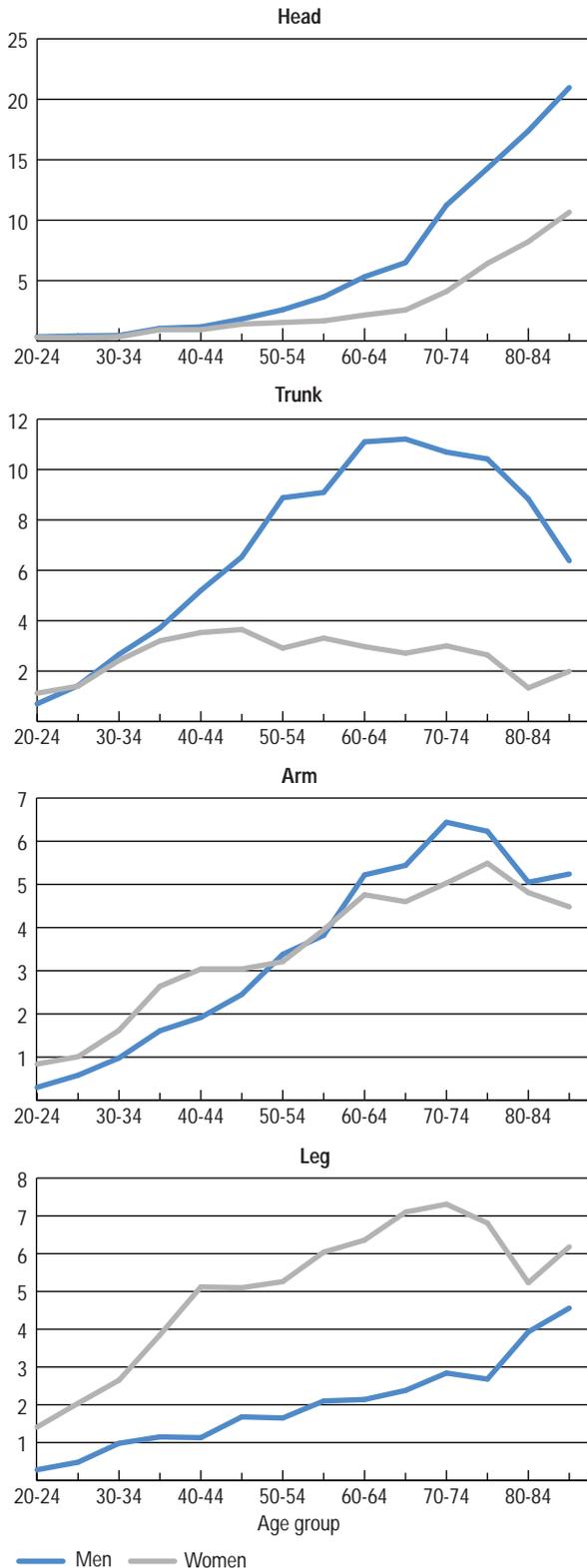
Melanoma is most common among older people, especially men



Source: National Cancer Incidence Reporting System, Canadian Cancer Registry.

# CST Melanoma sites vary by age and sex

Incidence per 100,000 population (1989-1993)



Source: National Cancer Incidence Reporting System, Canadian Cancer Registry.

sun. About four in ten Canadians aged 15 and over wore protective clothing during their leisure hours, covered their heads, used sunscreen on their faces and stayed in the shade as much as possible. Men were more likely to wear protective clothing, while women were more likely to use other measures to protect themselves from the sun.

Trends in the incidence and mortality rates for melanoma appear to be related to changes in sun exposure or to protective behaviours in early childhood. Part of the increase in incidence rates during the 1970s may be explained by changes in the previous 70 years in recreational activities and the style of outdoor dress which increased the sun exposure of children and adults. Meanwhile, the recent declines in melanoma rates among younger Canadians suggest that sun exposure patterns may have changed among those born since 1950.

This suggestion is supported by data on the sites of the body on which melanomas develop. The incidence rates for melanoma are somewhat different for the different parts of the body, depending on the age of the affected person and whether they are male or female. This may reflect the fact that women and men have different levels of exposure to the sun during their lifetimes. For example, melanomas appear on the head twice as frequently among men 50 and over as among women the same age, probably because many men go bald. Men also have much higher rates for melanoma of the trunk after age 35, a likely consequence of their additional exposure to the sun during both recreational and work activities. On the other hand, incidence rates for melanoma of the leg are typically two to three times higher among women in almost all age groups, and have increased rapidly, probably because women more frequently expose their legs to the sun in shorts, skirts and bathing suits. The stability of incidence rates for the leg since the mid-1980s may reflect women's tendency to "cover up" beginning in the mid-1970s.

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