Melanoma in South Dakota
Melanoma, the most serious form of skin cancer, is characterized by the uncontrolled growth of pigment-producing cells. Melanomas may appear on the skin suddenly without warning, but also can develop on an existing mole.

Melanoma was the number one cause of cancer death in white women age 25 to 29 in South Dakota in 2005-2009. According to the American Academy of Dermatology tanning beds and sun lamps increase the risk of developing melanoma by 75%. The increase in diagnosis is growing faster than any other cancer in the United States.

**Melanoma Estimates for 2012**

According to the American Cancer Society (ACS), an estimated 170 new cases of melanoma are expected in South Dakota in 2012. Nationally, the ACS estimates there will be 76,250 newly diagnosed cases and 9,180 deaths due to melanoma in 2012.

**Incidence and Mortality**

During 2005-2009, there was an average of 122 (66 men and 56 women) new cases of melanoma diagnosed among South Dakota residents per year. Of those cases, the white population averaged 120 cases and the American Indian population 1 case.

In South Dakota, 115 residents died from melanoma spanning the years from 2005 to 2009. None of the 115 deaths were American Indian.

<table>
<thead>
<tr>
<th>Incidence 2009</th>
<th>Mortality 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cases</td>
<td>Number of deaths</td>
</tr>
<tr>
<td>Total 128</td>
<td>Total 19</td>
</tr>
<tr>
<td>Males 70</td>
<td>Males 13</td>
</tr>
<tr>
<td>Females 58</td>
<td>Females 6</td>
</tr>
<tr>
<td>White 127</td>
<td>White 19</td>
</tr>
<tr>
<td>American Indian 0</td>
<td>American Indian 0</td>
</tr>
<tr>
<td>Median age at diagnosis 64 yrs</td>
<td>Median age at death 77 yrs</td>
</tr>
<tr>
<td>Mode 81 yrs</td>
<td>Mode 46 yrs</td>
</tr>
<tr>
<td>Age range at diagnosis 15-97 yrs</td>
<td>Age range at death 46-93 yrs</td>
</tr>
<tr>
<td>SD age-adjusted incidence rate 14.2</td>
<td>SD age-adjusted death rate 2.0</td>
</tr>
</tbody>
</table>


Source: South Dakota Department of Health

**Figure 1**

SEER Summary Stage

Melanoma stage at diagnosis, South Dakota, 2009

If detected early and treated properly, melanoma is highly curable. However, melanoma is more likely than other types of skin cancer to spread to other parts of the body.

Source: South Dakota Department of Health

Survival by Stage
Five-year relative survival by race and sex was 88.9% for white men and 93.4% for white women. As illustrated in the table at the right, the earlier a melanoma is diagnosed and treated the greater the chances of survival.

<table>
<thead>
<tr>
<th>Stage at Diagnosis</th>
<th>5-year Relative Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localized</td>
<td>98.2%</td>
</tr>
<tr>
<td>Regional</td>
<td>62.4%</td>
</tr>
<tr>
<td>Distant</td>
<td>15.1%</td>
</tr>
<tr>
<td>Unknown</td>
<td>75.8%</td>
</tr>
</tbody>
</table>


Risk Factors
• Tanning bed or sun lamp use
• UV (ultraviolet) light
• Moles (greater than 50)
• Fair skin
• Family history of melanoma
• Personal history of melanoma
• Weak immune system
• Aging
• Male gender

Prevention
• Do not use tanning beds or sun lamps
• Do not burn or tan
• Seek shade
• Wear protective clothing
• Wear sunglasses
• Generously apply sunscreen (SPF 30-recommended)
• Use extra caution near water, snow, and sand
• Get vitamin D safely

Detection
The ABCDE rule can help distinguish a normal mole from an abnormal mole. If a mole has any of these traits, it should be checked by a doctor.

• A - Asymmetry - one half is different than the other half
• B - Border Irregularity - the edges are notched, uneven, or blurred
• C - Color - is uneven; shades of brown, tan, and black are present
• D - Diameter - is greater than 6 millimeters
• E - Elevation/Evolving - the mole is raised and has an uneven surface

Screening Recommendations
The American Cancer Society recommends “Check your birthday suit on your birthday” with professional skin exams every year for people over 40, and every 3 years for people age 20 to 40. Monthly self-exams are recommended for all adults. Changing, growing, or bleeding skin needs to be checked by a doctor. Skin cancer is very treatable when caught early.

Figure 2
Melanoma Mortality Rates
Age-adjusted mortality rate, melanoma by race and gender, South Dakota, 2005-2009

Rates per 100,000 US 2000 standard population and SD 2005-2009 estimated population. Source: South Dakota Dept. of Health

Figure 3
Stage at Diagnosis Incidence Rate
Age-adjusted rate for melanoma cases at stage of diagnosis by race, South Dakota, 2005-2009

Figure 4
Melanoma Incidence Rate
Age-adjusted rate for melanoma cases by race and gender, South Dakota, 2005-2009

Figure 5
5-year Melanoma Cases and Deaths
Melanoma cases and deaths by age, South Dakota, 2005-2009

Figure 6
Melanoma Incidence and Mortality Rates
Melanoma incidence and mortality rates, South Dakota, 2005-2009

Rates per 100,000 US 2000 standard population and SD 2005-2009 estimated populations. Source: South Dakota Department of Health. Publication funded by the South Dakota Cancer Registry with a grant from the Centers for Disease Control and Prevention – grant number US8/DP000788-02. For more information or additional copies, contact the South Dakota Department of Health at 605.773.3361 or see the South Dakota Cancer Registry website at http://getscreened.sd.gov/registry/data/.

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