

HPV and Cancer

Between 9 and 26 Years of Age?
Get Vaccinated to Prevent Cancer

PARENT CALL TO ACTION

Please review the content of this publication. Consider the consequences of HPV. Talk to a health care provider about HPV vaccination.

WHAT IS HPV?

Human papillomavirus (HPV) is a widespread virus that can infect males and females. It is the most common sexually transmitted infection. It can cause cancer and genital warts. The primary cancer sites included are anus/rectum, cervix, head/neck/oral, penis, vagina, and vulva. There are more than 100 different types of HPV and more than 40 of those can be sexually transmitted. Most people who are infected with HPV do not know they have it since there are no signs or symptoms. HPV transmission can happen with genital contact – intercourse is not necessary. HPV vaccinations are available to prevent the infection and the possibility of cancer and genital warts.

HPV VACCINATION

HPV vaccination protects against some of the most common cancer-causing types of HPV. Vaccination is recommended for males and females ages 11 to 26 years (minimum age 9 years). Two vaccines, Gardasil and Cervarix, are approved by the Food and Drug Administration and recommended by the Centers for Disease Control and Prevention (CDC). Both are safe and given in a series of three injections over a six month period. The best protection is achieved after all three injections are given. Vaccination prior to the onset of first sexual activity is best. If not, infections caused by HPV types that haven't been introduced previously may be prevented.

- Gardasil – males and females
- Cervarix – females only

Gardasil is part of the Vaccines for Children program, a federal program that helps to provide free vaccines to children and adolescents 18 years and younger who are uninsured, Medicaid eligible, American Indian or Alaskan Native, or those whose health insurance will not cover. For more information, contact the South Dakota Department of Health Immunization Program at 800-592-1861.

SIGNS and SYMPTOMS

HPV initially causes no symptoms and may resolve naturally within two years. There is no way to know who will resolve naturally and who will develop HPV-related health problems. Males and females that get HPV pass it on without realizing it. For those who develop health problems, there are signs and symptoms to look for:

- Genital warts
 - One or more growths on anus, groin, penis, testicles, thighs, or vagina
 - Usually no pain
 - Various shapes - raised, flat, or cauliflower-shaped
 - May appear within weeks or months after sexual contact
 - Warts will not turn into cancer
- Anal/rectal cancer
 - Anal bleeding, pain, itching, or discharge
 - Swollen anal or groin lymph nodes
 - Changes in bowel habits or stool
- Cervical cancer
 - Vaginal bleeding after intercourse
 - Watery, bloody vaginal discharge that may be heavy and have a foul odor
 - Pelvic pain
 - Painful intercourse
- Head/neck/oral cancer
 - Persistent sore throat or ear pain
 - Constant coughing
 - Pain or difficulty swallowing or breathing
 - Unexplained weight loss
 - Hoarseness or voice changes for longer than 2 weeks
 - Lump or mass in neck
- Penile cancer
 - Changes in color, skin thickening, or tissue build-up on penis
 - Growth or sore on penis
- Vaginal cancer
 - Unusual vaginal bleeding
 - Watery vaginal discharge
 - Lump or mass in vagina
 - Painful urination
 - Constipation
 - Pelvic Pain
- Vulvar cancer
 - Persistent itching of vulva
 - Vulva pain and tenderness
 - Bleeding not from menstruation
 - Changes in skin color or thickening on vulva
 - Lump, wart-like bumps, or an open sore on vulva

SCREENING

For some of the cancers caused by HPV, screenings are available to detect abnormal tissue or cancer at an early stage.

- Oral cancer may be detected during routine exams by a medical or dental provider.
- Cervical cancer is one of the most preventable cancers due to the detection and treatment of abnormal tissue before cancer develops. It is important for women to have routine cervical cancer screenings (Pap) as recommended by their physician. HPV types that affect the genital area can cause abnormal Pap tests.

TESTING

For cervical cancer, the Pap test helps find pre-cancer and cell changes that might become cancer. The HPV test used with the Pap test will check for the virus that can cause these cell changes on the cervix. It might be used when a Pap test has unclear results.

Currently, there is no routine test recommended for other HPV-related health problems.

TREATMENT

There is no cure for HPV, but there are treatments for the diseases that HPV can cause.

- Genital warts can be treated with self – applied medications or treated by a health care provider. Treatments include medicine applied to wart(s), cryotherapy, or surgery. Treatment can be decided by personal preference and the location of the wart(s).
- HPV-related cancers (anus/rectum, cervix, head/neck/oral, penis, vagina, and vulva) are treated with surgery, radiation, or chemotherapy. When cancers are diagnosed at an early stage, chances of survival are greatest.

STAGE AT DIAGNOSIS

The earlier the stage of cancer progression at diagnosis, the better the chances of survival. The table below displays the HPV-related cancers diagnosed in South Dakota by stage of diagnosis and primary cancer site for years 2001-2008. *In situ* cancers are least progressed, and distant cancers are most progressed (widespread) throughout the body.

SEER Summary Stage of Cancer Progression for HPV-related Cancers

Primary Site	<i>In situ</i>	Localized	Regional	Distant	Unknown	Total
Anus/Rectum	85	469	314	149	114	1131
Cervix	* 28	105	48	23	17	221
Head/Neck/Oral	19	319	233	63	104	738
Penis	15	24	4	0	3	46
Vagina	9	7	2	4	6	28
Vulva	97	61	28	4	12	202
Total	253	985	629	243	256	2366

**In situ* cervical cancer is seldom reported in South Dakota
Source: South Dakota Department of Health

The actual number of *in situ* cervical cancer cases is not known in South Dakota or nationwide. According to the National Cancer Institute, 3.5 million abnormal Pap tests are found each year in the U.S., and require medical follow-up. The CDC attributes almost 100% of cervical cancer cases to HPV, however, the other cancers are less than 100% attributable to HPV.

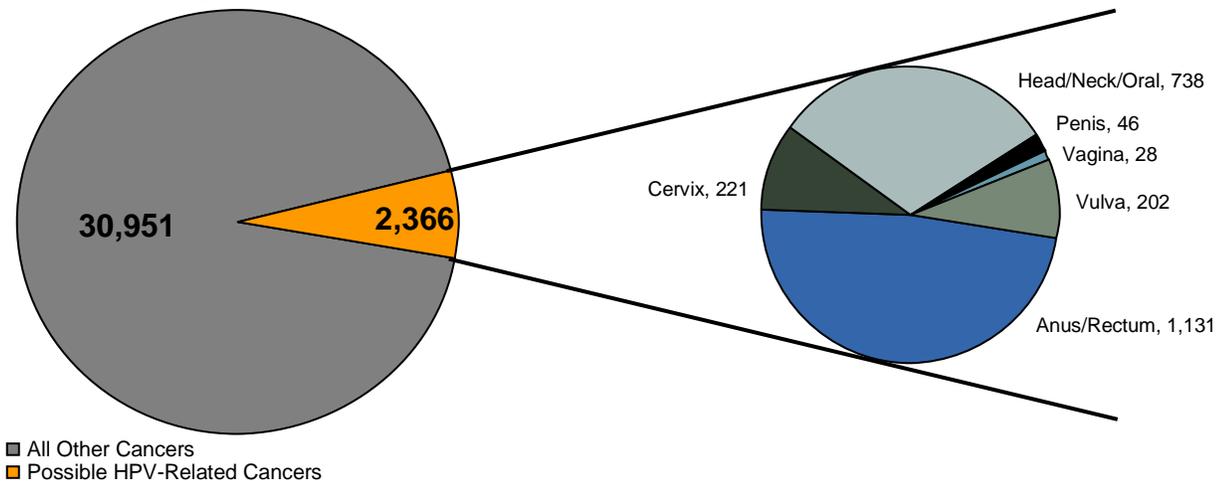
INCIDENCE

More than 7% of all cancers diagnosed in South Dakota from 2001 to 2008 were in a primary site that may have been caused by HPV. According to CDC estimates, the following percentages of cancer are caused by HPV in the U.S.

- 93% Anus/Rectum
- 96% Cervix
- 63% Head/Neck/Oral
- 36% Penis
- 64% Vagina
- 51% Vulva

Applying these same percentages to cancers diagnosed in South Dakota shows that if HPV were prevented then significant numbers of cancer diagnoses would be stopped.

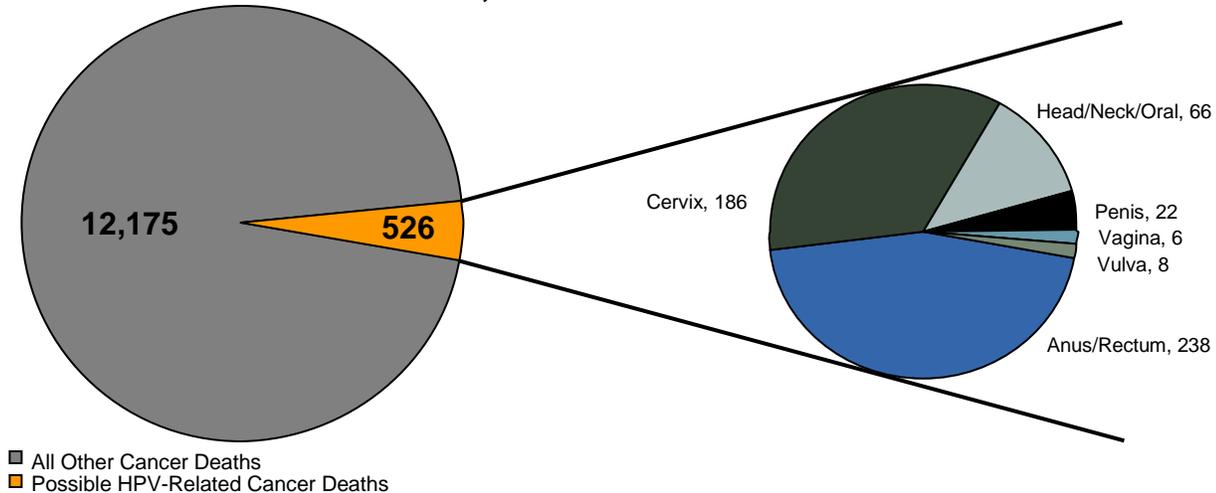
Cancers Diagnosed in South Dakota, 2001-2008



Source: South Dakota Department of Health

MORTALITY

Cancer Deaths in South Dakota, 2001-2008



Source: South Dakota Department of Health

Four percent of the total cancer deaths in South Dakota in 2001-2008 were from HPV-associated cancers. HPV vaccination saves lives in South Dakota. Get vaccinated today.

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