

Risk Factors

The risk of developing ovarian cancer increases with age. Other risk factors are use of estrogen alone as treatment for menopause, personal or family history of breast or ovarian cancer, inherited breast cancer genetic mutations (e.g., BRCA1), and being overweight or obese. Pregnancy and long-term use of oral contraceptives may decrease the risk. Preventive surgery, like hysterectomy and tubal ligation, where either the ovaries or fallopian tubes are removed, may decrease the risk in women with inherited breast cancer mutations.¹

Warning Signs and Symptoms

The most common sign is enlargement of the abdomen which is due to accumulation of fluid. Persistent bowel problems (gas, stomach discomfort, stomach bloating) may be symptom of ovarian cancer. Urinary problems may also be a warning sign. Abnormal vaginal bleeding as a symptom is rare.¹

Early Detection

There is no proven screening test for ovarian cancer for average-risk women. A pelvic exam may only detect ovarian cancer when it is in a later stage. Women who are at high risk or showing symptoms should have a combination of a pelvic exam, a transvaginal ultrasound, and a blood test for the tumor marker CA125 to diagnose possible ovarian cancer.¹



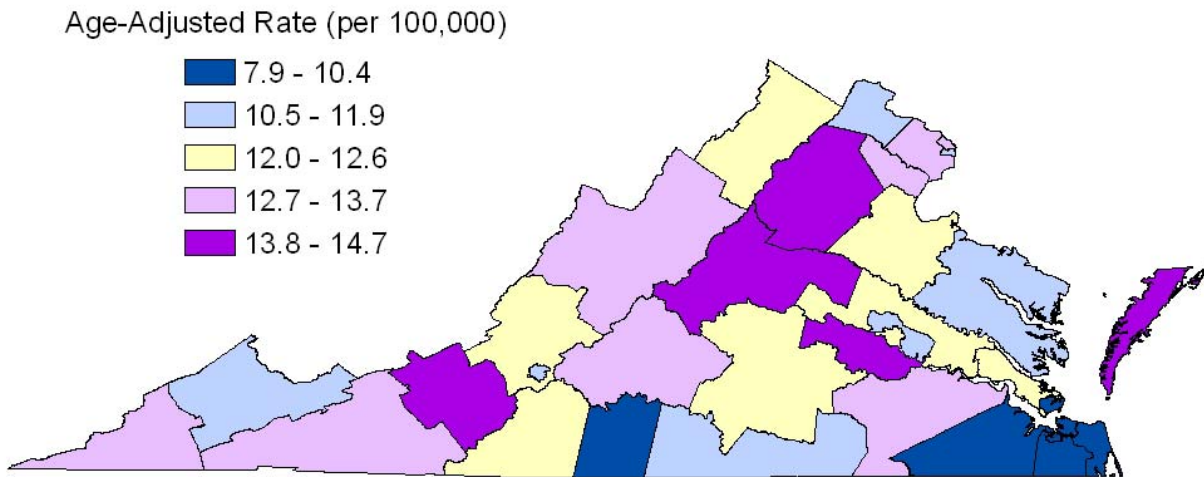
Ovarian Cancer in Virginia

- Ovarian cancer is ranked eighth (8th) and seventh (7th), respectively, among the top cancers diagnosed among women in the U.S. and in Virginia.^{2,3} According to the American Cancer Society, an estimated **21,650 women** in the U.S., will be diagnosed with ovarian cancer in 2008.¹ An average of 484 cases of ovarian cancer were diagnosed each year in Virginia from 2001 through 2005.³
- Ovarian cancer is the **fifth (5th)** most common cause of death due to cancer among women in the U.S. and Virginia.^{2,4} An estimated **15,520 women** will die from ovarian cancer nationwide, including 390 women from Virginia, in 2008.¹ Ovarian cancer accounts for three percent of all new cancer cases and six percent of all cancer deaths among women in the U.S.¹
- Between 2001 and 2005, women were diagnosed at a rate of **12.1 cases** per 100,000,³ and died from ovarian cancer at a rate of **8.9 deaths** per 100,000.⁴ In the U.S., the incidence rate was 13.3 cases, and the mortality rate was 8.8 deaths per 100,000.²
- Four of five (80%) ovarian cancer cases were diagnosed in women age 50 and older.³ Women have a one percent (1.4%) chance of being diagnosed with ovarian cancer during their lifetime.¹

Ovarian Cancer (continued)

- In Virginia, white women were more likely than black women to be diagnosed with ovarian cancer (12.7 versus 9.6 per 100,000). However, both groups had similar rates of dying from ovarian cancer.^{3,4} National data indicates that Hispanic, Asian, and American Indian women had lower ovarian incidence and mortality rates than white women.²
- Chesterfield (14.7 per 100,000), New River (14.6) and Eastern Shore (14.4) health districts had the highest rates of diagnosis of ovarian cancer in the state (Figure 1).³

Figure 1 – Ovarian Cancer Incidence Rate by Health District, Virginia, 2001-2005



Source: Virginia Cancer Registry. Rates are age-adjusted to the 2000 U.S. standard population. For health districts that have counts less than 16, a rate is not reported.

- From 1995 to 2005, the ovarian cancer incidence rate in Virginia declined by 24%, while the mortality rate remained steady.^{3,4}
- The five-year relative survival rate for ovarian cancer is **93%** if diagnosed early.¹ Ovarian cancer is treatable when detected early. In Virginia, 17% of women are diagnosed with ovarian cancer in its earliest (local) stage when it's most curable. White women (18%) were diagnosed in the local stage more often than black women (11%).³
- In Virginia, there were 28 inpatient hospitalizations for ovarian cancer that occurred in 2006, at a total charge (cost) of more than \$17 million. The average length of stay was 6.5 days, and the average charge per stay was \$32,423.⁵

¹ American Cancer Society *Cancer Facts & Figures 2008* (<http://www.cancer.org>).

² Ries LAG, Melbert D, Krapcho M, Stinchcomb DG, et al. (eds.), *SEER Cancer Statistics Review, 1975-2005*, National Cancer Institute. Bethesda, MD: 2008 (http://seer.cancer.gov/csr/1975_2005/).

³ Virginia Cancer Registry. Based on combined data from 2001 to 2005. Rates are age-adjusted to the 2000 U.S. standard population.

⁴ VDH Division of Health Statistics. Based on combined data from 2001 to 2005. Rates are age-adjusted to the 2000 U.S. standard population.

⁵ Virginia Health Information Hospital Discharge Patient-Level Dataset.