

Title: Ovarian cancer screening in high risk individuals..

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Abstract: Currently, there is no good screening test for ovarian cancer. The screening tests used are more useful in women who are at high risk of developing ovarian cancer, but they are far from perfect. Whether these screening tests will reduce the number of women who die from ovarian cancer remains to be seen with the completion of the Prostate, Lung, Colon, and Ovarian cancer trial. The results from this trial are projected to be available in 2016.

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Ovarian Cancer Facts:

The ovaries are two almond-sized organs located deep in a woman's pelvis that make female hormones and eggs for reproduction. Cancer occurs when the cells that make up the ovary multiply out of control.

Ovarian cancer is the 5th most common cause of death in all women with cancer. Each year about 20,000 people will be diagnosed with ovarian cancer and 15,000 people will die.

Deaths		Cases	
270,000		658,800	
25%	Lung and bronchus	32%	Breast
15%	Breast	12%	Lung and bronchus
11%	Colon & rectum	11%	Colon & rectum
6%	Pancreas	6%	Uterine Corpus
5%	Ovary (14,300)	4%	Ovary (24,500)
4%	Non-Hodgkin lymphoma	4%	Non-Hodgkin lymphoma
4%	Leukemia	3%	Melanoma of skin
3%	Uterine corpus	3%	Thyroid
2%	Brain/ONS	2%	Pancreas
2%	Multiple myeloma	2%	Urinary bladder
23%	All other sites	20%	All other sites

Women with ovarian cancer have a better chance of living if the disease is caught early. But it is hard to detect because the ovaries are very deep within the body, so women usually don't have symptoms until the cancer has spread to other parts of the body.

Right now, there isn't a good test available to the average woman to catch ovarian cancer in its early stages. There are some tests available for women who are at high risk for ovarian cancer.



Ovarian cancer is hard to detect until it has spread because of the ovaries' deep location.

Symptoms:

The symptoms of ovarian cancer are very common symptoms that you can also have with other less serious diseases, so it's easy to ignore the signs. The symptoms of ovarian cancer are constant and usually get worse as time goes on. Here are some things to watch for:

- Bloating, gas, indigestion, nausea
- Increased waist size (clothing fits tighter around waist)
- The need to urinate often
- Changes in stools (diarrhea or constipation)
- Constant low back pain
- Pain with sexual intercourse
- Decreased energy
- Unexplained weight loss or weight gain
- Abdominal pain or pressure

You may be at risk if...

- If you have family members with ovarian cancer (especially mother, sisters and daughters)
- If you or a family member has a mutated gene called BRCA 1 or BRCA 2
- If you are between the ages of 50 and 70
- If you are over-weight by age 18
- If you have never had any children
- If you have never used birth control pills
- If you have had trouble getting pregnant
- If you are of Ashkenazi Jewish heritage
- If you have taken hormones after menopause

Tests for screening:

Currently, there are no tests that are used to screen average women. This is because the average woman has a small risk of getting ovarian cancer and the tests aren't very accurate in these cases. Many times the test will show that a woman has cancer when she actually doesn't. This may cause a woman with without cancer to have surgery to remove healthy ovaries.

On the other hand, if a woman has a high risk for getting ovarian cancer these tests are more useful, but they are not perfect. There is research being done to see how useful these tests are and also to find better tests. If you think you are at high risk talk to your doctor about making a screening plan that is right for you.

Here are some of the screening tests:

- **CA-125:** a protein found in the blood of a person with a number of different diseases including ovarian cancer. This test is more accurate when used with the next test.
- **Transvaginal Ultrasound:** a device is inserted into the vagina to take a picture of the ovaries using sound waves, similar to the ultrasound a woman has when she is pregnant.

New tests still under investigation:

- **Proteomics:** This test is used to compare the types and amounts of proteins in the blood of women with known ovarian cancer with women who have no ovarian cancer.

- **Other Tumor Markers:** LPA, mesothelin, alpha-folate receptor, and OVX1. Like CA-125, these are proteins in the body that may be increased if a woman has ovarian cancer.

For more information:

You can figure your risk of developing ovarian cancer by going to this website:

<http://www.yourdiseaserisk.siteman.wustl.edu/>

Other good websites:

The American Cancer Society

http://www.cancer.org/docroot/CRI/CRI_2x.asp?sitearea=&dt=33

The National Cancer Institute

<http://www.cancer.gov/cancertopics/types/ovarian>



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