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Vulvar Cancer Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Finding cancer early -- when it's small and before it has spread -- often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that's not always the case.

- Can Vulvar Cancer Be Found Early?
- Signs and Symptoms of Vulvar Cancers and Pre-Cancers
- Tests for Vulvar Cancer

Stages and Outlook (Prognosis)

After a cancer diagnosis, staging provides important information about the extent of cancer in the body and anticipated response to treatment.

- Vulvar Cancer Stages
- Survival Rates for Vulvar Cancer

Questions to Ask About Vulvar Cancer

Here are some questions you can ask your cancer care team to help you better understand your cancer diagnosis and treatment options.

Questions to Ask Your Doctor About Vulvar Cancer

Can Vulvar Cancer Be Found Early?

Having pelvic exams and knowing any signs and symptoms of vulvar cancer greatly improve the chances of early detection and successful treatment. If you have any of the problems discussed in Signs and Symptoms of Vulvar Cancers and Pre-Cancers, you should see a doctor. If the doctor finds anything abnormal during a pelvic examination, you may need more tests to figure out what is wrong. This may mean referral to a gynecologist (specialist in problems of the female genital system).

Knowing what to look for can sometimes help with early detection, but it is even better not to wait until you notice symptoms. Get regular well-women exams.

There is no standard screening for this disease.

References

See all references for Vulvar Cancer_(www.cancer.org/cancer/vulvar-cancer/references.html)

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Signs and Symptoms of Vulvar Cancers and Pre-Cancers

Symptoms depend on whether it is a cancer or pre-cancer and what kind of vulvar cancer it is.

Vulvar intraepithelial neoplasia

Most women with vulvar intraepithelial neoplasia (VIN) have no symptoms at all. When a woman with VIN does have a symptom, it is most often itching that does not go away or get better. An area of VIN may look different from normal vulvar skin. It is often

thicker and lighter than the normal skin around it. However, an area of VIN can also appear red, pink, or darker than the surrounding skin.

Because these changes are often caused by other conditions that are not precancerous, some women don't realize that they might have a serious condition. Some try to treat the problem themselves with over-the-counter remedies. Sometimes doctors might not even recognize the condition at first.

Invasive squamous cell cancer of the vulva

Almost all women with invasive vulvar cancers will have symptoms. These can include:

- An area on the vulva that looks different from normal it could be lighter or darker than the normal skin around it, or look red or pink.
- A bump or lump, which could be red, pink, or white and could have a wart-like or raw surface or feel rough or thick
- Thickening of the skin of the vulva
- Itching
- Pain or burning
- Bleeding or discharge not related to the normal menstrual period
- An open sore (especially if it lasts for a month or more)

Verrucous carcinoma, a subtype of invasive squamous cell vulvar cancer, looks like cauliflower-like growths similar to genital warts.

These symptoms are more often caused by other, non-cancerous conditions. Still, if you have these symptoms, you should have them checked by a doctor or nurse.

Vulvar melanoma

Patients with vulvar melanoma can have many of the same symptoms as other vulvar cancers, such as:

- A lump
- Itching
- Pain
- Bleeding or discharge

Most vulvar melanomas are black or dark brown, but they can be white, pink, red, or

other colors. They can be found throughout the vulva, but most are in the area around the clitoris or on the labia majora or minora.

Vulvar melanomas can sometimes start in a mole, so a change in a mole that has been present for years can also indicate melanoma. The **ABCDE**rule can be used to help tell a normal mole from one that could be melanoma.

Asymmetry: One-half of the mole does not match the other.

Border irregularity: The edges of the mole are ragged or notched.

Color: The color over the mole is not the same. There may be differing shades of tan, brown, or black and sometimes patches of red, blue, or white.

Diameter: The mole is wider than 6 mm (about 1/4 inch).

Evolving: The mole is changing in size, shape, or color.

The most important sign of melanoma is a change in size, shape, or color of a mole. Still, not all melanomas fit the ABCDE rule.

If you have a mole that has changed, ask your doctor to check it out.

Bartholin gland cancer

A distinct mass (lump) on either side of the opening to the vagina can be the sign of a Bartholin gland carcinoma. More often, however, a lump in this area is from a Bartholin gland cyst, which is much more common (and is not a cancer).

Paget disease

Soreness and a red, scaly area are symptoms of Paget disease of the vulva.

References

See all references for Vulvar Cancer (www.cancer.org/cancer/vulvar-cancer/references.html)

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Tests for Vulvar Cancer

Medical history and physical exam

The first step is for the doctor to take your complete medical history to check for risk factors and symptoms. Then your doctor will physically examine you, including a pelvic exam. He or she will feel your uterus, ovaries, cervix, and vagina for anything irregular. Your doctor will also look at your vagina and cervix (with a speculum) and may do a Pap test and an HPV test¹.

Biopsy

Certain signs and symptoms might strongly suggest <u>vulvar cancer</u>², but many of them can be caused by changes that aren't cancer. The only way to be sure cancer is present is for the doctor to do a <u>biopsy</u>³. To do this, a small piece of tissue from the changed area is removed and examined under a microscope. A pathologist (a doctor specially trained to diagnose diseases with laboratory tests) will look at the tissue sample with a microscope to see if cancer or pre-cancer cells are present and, if so, what type it is.

The doctor might use a colposcope or a hand-held magnifying lens to select areas to biopsy. A colposcope is an instrument that stays outside the body and has magnifying lenses. It lets the doctor see the surface of the vulva closely and clearly. The vulva is treated with a dilute solution of acetic acid (like vinegar) that causes areas of vulvar intraepithelial neoplasia (VIN) and vulvar cancer to turn white. This makes them easier to see through the colposcope. Examining the vulva with magnification is called **vulvoscopy**.

Less often, the doctor might wipe the vulva with a dye (called toluidine blue) to find areas of abnormal vulvar skin to biopsy. This dye causes skin with certain diseases -- including VIN and vulvar cancer -- to turn blue.

Once the abnormal areas are found, a numbing medicine (local anesthetic) is injected into the skin so you won't feel pain. If the abnormal area is small, it may be completely removed (called an **excisional biopsy**). Sometimes stitches are needed afterward.

If the abnormal area is larger, a **punch biopsy** is used to take a small piece of it. The instrument used looks like a tiny apple corer and removes a small, cylinder of skin about 4 mm (about 1/6 inch) across. Stitches aren't usually needed after a punch biopsy. Depending on the results of the punch biopsy, more surgery may be needed.

To learn more, see <u>Testing Biopsy and Cytology Specimens for Cancer</u>⁴.

Seeing a specialist

If your biopsy shows that you have vulvar cancer, your health care provider will refer you to a gynecologic oncologist, a specialist in female reproductive system cancers. This specialist will also look at your complete personal and family medical history to learn about related <u>risk factors</u>⁵ and <u>symptoms</u> of vulvar cancer. The doctor will do a complete physical exam to evaluate your general state of health, paying special attention to the <u>lymph nodes</u>⁶, particularly those in your groin region, to check for signs of cancer spread.

Depending on the biopsy results, more tests may be done to find out to find out the size of the tumor, how deeply it has grown into tissues at the place it first started, if it has grown into nearby organs, and if it has metastasized (spread to other parts of your body). This is called staging. The stage of your cancer is the most important factor in selecting the right treatment plan. (See Vulvar Cancer Stages for more details.)

Here are some of the tests that may be done:

Imaging tests

Imaging tests use sound waves, x-rays, magnetic fields, or radioactive substances to create pictures of the inside of your body.

Chest x-ray

An x-ray of your chest may be done to see if cancer has spread to your lungs.

Computed tomography (CT) scan

A <u>CT scan</u>¹⁰ is an x-ray test that makes detailed cross-sectional images of your body. CT scans are not often needed, but they might be done in women with large vulvar tumors or enlarged lymph nodes. They can also be helpful in deciding whether to do a sentinel lymph node procedure to check groin <u>lymph nodes</u>¹¹ for cancer spread. (This is discussed in more detail in <u>Surgery for Vulvar Cancer</u>¹²).

Magnetic resonance imaging (MRI)

An MRI¹³ uses radio waves and strong magnets instead of x-rays to make images of the

body. Like a CT scanner, it produces cross sectional slices of the body. MRI images are very useful in examining pelvic tumors. They can show enlarged lymph nodes in the groin. But, they're rarely used in patients with early vulvar cancer.

Positron emission tomography (PET) scan

A <u>PET scan</u>¹⁴ uses a form of radioactive sugar that's put into the blood. Body cells take in different amounts of the sugar, depending on how fast they're growing. Cancer cells grow quickly and are more likely to take up larger amounts of the sugar than normal cells. A special camera is then used to create a picture of areas of radioactivity in the body.

This test can be helpful for spotting collections of cancer cells, and seeing if the cancer has spread to lymph nodes. The picture from a PET scan is not as detailed as a CT or MRI scan, but it provides helpful information about whether abnormal areas seen on these other tests are likely to be cancer or not.

PET scans are also useful when your doctor thinks the cancer has spread, but doesn't know where (although they aren't useful for finding cancer spread in the brain). PET scans can be used instead of several different x-rays because they scan your whole body. Often, a machine that combines a PET scanner and a CT scanner (called a PET/CT) is used, which gives more information about areas of cancer and cancer spread.

Other tests to look for cancer

These tests aren't often used, but if the doctor suspects the cancer has spread to nearby organs, other tests may be used to look for it. These tests let the doctor directly look inside your body for signs of cancer. You may be given drugs to put you into a deep sleep (general anesthesia) while the test is done.

Cystoscopy

The doctor uses a lighted tube to check the inside lining of your bladder. Some advanced cases of vulvar cancer can spread to the bladder, so any suspicious areas noted during this exam are biopsied. This procedure also can be done using a local anesthetic, where the area is just numbed, but some patients may need general anesthesia.

Proctoscopy

This lets the doctor look at the inside of the rectum using a thin, lighted tube. Some advanced cases of vulvar cancer can spread to the rectum. Any suspicious areas are biopsied.

Examination of the pelvis while under anesthesia

Putting the patient into a deep sleep (under anesthesia) allows the doctor to do a more thorough exam that can better evaluate how much the cancer has spread to internal organs of the pelvis.

Blood tests

Your doctor might also order certain <u>blood tests</u>¹⁵ to help get an idea of your overall health and how well certain organs, like your liver and kidneys, are working.

Hyperlinks

- 1. <u>www.cancer.org/cancer/cancer-causes/infectious-agents/hpv/hpv-and-hpv-testing.html</u>
- 2. www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html
- 3. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/testing-biopsy-and-cytology-specimens-for-cancer.html</u>
- 4. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/testing-biopsy-and-cytology-specimens-for-cancer.html</u>
- 5. www.cancer.org/cancer/vulvar-cancer/causes-risks-prevention/risk-factors.html
- 6. www.cancer.org/cancer/cancer-basics/lymph-nodes-and-cancer.html
- 7. www.cancer.org/treatment/understanding-your-diagnosis/staging.html
- 8. www.cancer.org/cancer/vulvar-cancer/treating.html
- 9. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/x-rays-and-other-radiographic-tests.html</u>
- 10. www.cancer.org/treatment/understanding-your-diagnosis/tests/ct-scan-for-cancer.html
- 11. www.cancer.org/cancer/cancer-basics/lymph-nodes-and-cancer.html
- 12. www.cancer.org/cancer/vulvar-cancer/treating/surgery.html
- 13. www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html
- 14. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/nuclear-medicine-scans-for-cancer.html</u>

15. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/understanding-your-lab-test-results.html</u>

References

See all references for Vulvar Cancer (www.cancer.org/cancer/vulvar-cancer/references.html)

National Comprehensive Cancer network. NCCN Clinical Guidelines in Oncology (NCCN Guidelines). Vulvar Cancer (Squamous Cell Carcinoma) Version 1.2018 – October 27, 2017.

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Vulvar Cancer Stages

After a woman is diagnosed with vulvar cancer, doctors will try to figure out if it has spread, and if so, how far. This process is called **staging**. The stage of a cancer describes the amount of cancer in the body. It helps determine how serious the cancer is and how best to <u>treat</u>¹ it. Doctors also use a cancer's stage when talking about survival statistics.

Vulvar cancer stages range from stage I (1) through IV (4). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more. Although each person's cancer experience is unique, cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

How is the stage determined?

The 2 systems used for staging vulvar cancer, the FIGO (International Federation of

Gynecology and Obstetrics) systemand the AJCC (American Joint Committee on Cancer)TNM staging systemare basically the same.

They both stage (classify) this cancer based on 3 pieces of information:

- The extent (size) of the tumor (T): How large and deep has the cancer grown? Has the cancer reached nearby structures or organs like the bladder or rectum?
- The spread to nearby lymph nodes (N): How many lymph nodes has the cancer spread to and has it grown outside of those lymph nodes?
- The spread (**m**etastasis) to distant sites (**M**): Has the cancer spread to distant lymph nodes or distant organs?

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced. Once a person's T, N, and M categories have been determined, this information is combined in a process called **stage grouping** to assign an overall stage.

The staging system in the table below uses the **pathologic stage** (also called the**surgical stage**). It is determined by examining tissue removed during an operation. . Sometimes, if surgery is not possible right away, the cancer will be given a clinical stage instead. This stage is based on the results of a physical exam, <u>biopsy</u>², and <u>imaging</u> tests³ done before surgery. For more information see <u>Cancer Staging</u>⁴.

The system described below is the most recent AJCC system, effective January 2018.

These systems are not used to stage vulvar melanoma, which is staged like melanoma of the skin. Information about melanoma staging can be found in Melanoma Skin Cancer⁵.

Vulvar cancer staging can be complex, so ask your doctor to explain it to you in a way you understand.

AJCC stage	Stage grouping	FIGO stage	Stage description*
IA	T1a N0	IA	The cancer is in the vulva or the perineum (the space between the rectum and the vagina) or both and has grown no more than 1 mm into underlying tissue (stroma) and is 2 cm or smaller (about 0.8 inches) (T1a).
	MO		It has not spread to nearby lymph nodes (N0) or to distant sites (M0).

	ı	I	
ΙΒ	T1b N0	ΙΒ	The cancer is in the vulva or the perineum or both and is either more than 2 cm (0.8 inches) or it has grown more than 1 mm (0.04 inches) into underlying tissue (stroma) (T1b).
	MO		It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
T2 II N0 I		II	The cancer can be any size and is growing into the anus or the lower third of the vagina or urethra (the tube that drains urine from the bladder) (T2).
	MO		It has not spread to nearby lymph nodes (N0) or to distant sites (M0).
IIIA	T1 or T2		Cancer is in the vulva or perineum or both (T1) and may be growing into the anus, lower vagina, or lower urethra (T2).
	N1 M0	IIIA	It has either spread to a single nearby lymph node with the area of cancer spread 5 mm or more OR it has spread to 1 or 2 nearby lymph nodes with both areas of cancer spread less than 5 mm (N1).
			It has not spread to distant sites (M0).
IIIB	T1 or T2		Cancer is in the vulva or perineum or both (T1) and may be growing into the anus, lower vagina, or lower urethra (T2).
	N2a or N2b M0	IIIB	The cancer has spread either to 3 or more nearby lymph nodes, with all areas of cancer spread less than 5 mm (N2a); OR the cancer has spread to 2 or more lymph nodes with each area of spread 5 mm or greater (N2b).
			It has not spread to distant sites (M0).
	T1 or T2		Cancer is in the vulva or perineum or both (T1) and may be growing into the anus, lower vagina, or lower urethra (T2).
IIIC	N2c	IIIC	The cancer has spread to nearby lymph nodes and has started growing through the outer covering of at least one of the lymph
	MO		nodes (called extracapsular spread; N2c). It has not spread to distant sites (M0).
IVA	T1 or T2		Cancer is in the vulva or perineum or both (T1) and may be growing
1 / /	N3	IVA	into the anus, lower vagina, or lower urethra (T2).
			The cancer has spread to nearby lymph nodes and has become

	МО		stuck (fixed) to the underlying tissue or has caused an ulcer(s) to form on the lymph node(s)(ulceration) (N3). It has not spread to distant sites (M0).		
	OR				
	T3		The cancer has spread beyond nearby tissues to the bladder, rectum, pelvic bone, or upper part of the urethra or vagina (T3).		
	Any N	IVA			
	MO		It might or might not have spread to nearby lymph nodes (any N). It has not spread to distant sites (M0).		
	Any T		The cancer has spread to distant lymph nodes (pelvic) or organs such as lung or bone (M1). The cancer can be any size and might or		
IVB	Any N	IVB	might not have spread to nearby organs (Any T).		
	M1		It might or might not have spread to nearby lymph nodes (Any N).		

^{*} The following additional categories are not listed on the table above:

- TX: Main tumor cannot be assessed due to lack of information.
- T0: No evidence of a primary tumor.
- NX: Regional lymph nodes cannot be assessed due to lack of information.

Hyperlinks

- 1. www.cancer.org/cancer/vulvar-cancer/treating.html
- 2. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/testing-biopsy-and-cytology-specimens-for-cancer.html</u>
- 3. <u>www.cancer.org/treatment/understanding-your-diagnosis/tests/imaging-radiology-tests-for-cancer.html</u>
- 4. <u>www.cancer.org/treatment/understanding-your-diagnosis/staging.html</u>
- 5. https://www.cancer.org/cancer/melanoma-skin-cancer.html

References

American Joint Committee on Cancer. Vulva. In: *AJCC Cancer Staging Manual*. 8th ed. New York, NY: Springer; 2017: 633-640.

See all references for Vulvar Cancer (www.cancer.org/cancer/vulvar-cancer/references.html)

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Survival Rates for Vulvar Cancer

Survival rates can give you an idea of what percentage of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can't tell you how long you will live, but they may help give you a better understanding of how likely it is that your treatment will be successful.

Keep in mind that survival rates are estimates and are often based on previous outcomes of large numbers of people who had a specific cancer, but they can't predict what will happen in any particular person's case. These statistics can be confusing and may lead you to have more questions. Talk with your doctor about how these numbers may apply to you, as he or she is familiar with your situation.

What is a 5-year relative survival rate?

A **relative survival rate** compares women with the same type and stage of vulvar cancer to people in the overall population. For example, if the **5-year relative survival rate** for a specific stage of vulvar cancer is 90%, it means that women who have that cancer are, on average, about 90% as likely as women who don't have that cancer to live for at least 5 years after being diagnosed.

Where do these numbers come from?

The American Cancer Society relies on information from the SEER* database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.

The SEER database tracks 5-year relative survival rates for vulvar cancer in the United States, based on how far the cancer has spread. The SEER database, however, does

not group cancers by AJCC TNM stages (stage 1, stage 2, stage 3, etc.). Instead, it groups cancers into localized, regional, and distant stages:

- Localized: The cancer is only in the vulva, without spread to lymph nodes or nearby tissues. This includes stage I cancers.
- **Regional:** The cancer has spread to nearby lymph nodes or tissues, but hasn't spread to distant organs. This includes mainly stage II, III and IVA cancers.
- **Distant:** The cancer has spread to distant parts of the body such as the lungs, liver or bones. This includes stage IVB cancers.

5-year relative survival rates for vulvar cancer

(Based on women diagnosed with vulvar cancer between 2008 and 2014.)

SEER Stage	5-Year Relative Survival Rate			
Localized	86%			
Regional	53%			
Distant	19%			
All SEER stages combined 71%				

Understanding the numbers

- Women now being diagnosed with vulvar cancer may have a better outlook than these numbers show. Treatments improve over time, and these numbers are based on people who were diagnosed and treated at least five years earlier.
- These numbers apply only to the stage of the cancer when it is first diagnosed. They do not apply later on if the cancer grows, spreads, or comes back after treatment.
- These numbers don't take everything into account. Survival rates are grouped based on how far the cancer has spread, but your age, overall health, how well the cancer responds to treatment, and other factors will also affect your outlook.

^{*}SEER= Surveillance, Epidemiology, and End Results

Hyperlinks

1. https://seer.cancer.gov/csr/1975_2015/

References

Noone AM, Howlader N, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2015, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2015/_(seer.cancer.gov/csr/1975_2015/_)¹, based on November 2017 SEER data submission, posted to the SEER web site, April 2018.

See all references for Vulvar Cancer_(www.cancer.org/cancer/vulvar-cancer/references.html)

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Questions to Ask Your Doctor About Vulvar Cancer

It is important for you to have honest, open discussions with your cancer care team. They want to answer all of your questions, no matter how trivial you might think they are. Here are some questions to consider:

- What type1 of vulvar cancer do I have?
- Has my cancer spread beyond the vulva?
- What is the stage of my cancer and what does that mean?
- What <u>treatments</u>² are appropriate for me? What do you recommend? Why?
- What should I do to be ready for treatment?
- What risks or side effects should I expect?
- Can anything be done to minimize my risks?
- Will I be able to have children after my treatment?
- Will I be able to enjoy normal sexual relations?

- What are the chances my cancer will <u>recur</u>³ (come back) with the treatments we have discussed?
- Should I follow a special diet?
- What is my expected prognosis, based on my cancer as you view it?
- What do I tell my children, husband, parents, and other family members?

In addition to these sample questions, be sure to write down some questions of your own. For instance, you might want specific information about anticipated recovery times so that you can plan your work schedule. Or you may want to ask about second opinions⁴ or about clinical trials for which you may qualify.

Other health care professionals, such as nurses and social workers, may have the answers to some of your questions. You can find more information about communicating with your health care team in The <u>Doctor-Patient Relationship</u>⁶.

Hyperlinks

- 1. www.cancer.org/cancer/vulvar-cancer/about/what-is-vulvar-cancer.html
- 2. www.cancer.org/cancer/vulvar-cancer/treating.html
- 3. <u>www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html</u>
- 4. <u>www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team/seeking-a-second-opinion.html</u>
- 5. www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html
- 6. www.cancer.org/treatment/understanding-your-diagnosis/talking-about-cancer/the-doctor-patient-relationship.html

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See all references for Vulvar Cancer (www.cancer.org/cancer/vulvar-cancer/references.html)

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