

Hope in Action: A Patient's Guide to Cancer Immunotherapy

for Ovarian Cancer



Starting With What You Need to Know

Hearing the words “*You have ovarian cancer*” can feel overwhelming. You may feel scared, confused, or uncertain about what comes next. These feelings are not unexpected — and you are not alone. You don’t have to become an expert overnight.

This guide from the Cancer Research Institute (CRI) is designed to help you understand a treatment option called immunotherapy, how it may fit into your ovarian cancer treatment plan, and what questions you may want to ask your health care team along the way.



Getting a Diagnosis:

What is Ovarian Cancer?

What are ovaries, and what is ovarian cancer?

The ovaries are two small female reproductive organs that produce eggs and hormones. Ovarian cancer develops when cells in an ovary grow out of control. Some ovarian cancers are now believed to originate in the fallopian tubes, which carry eggs from the ovaries toward the uterus.

A closely related cancer can develop in the peritoneum, the tissue that lines the inside of your abdomen. Because ovarian, fallopian tube, and primary peritoneal cancers share many features and are generally treated in similar ways, they are often discussed together as “ovarian cancer.”

Getting a Diagnosis: What is Ovarian Cancer? (Cont.)

Are there different types of ovarian cancer?

Yes. Knowing the type, or subtype, of ovarian cancer you have can help guide treatment.

- **Epithelial ovarian cancer** may begin in the ovary or fallopian tube and accounts for about 90% of ovarian cancers. High-grade serous carcinoma is the most common subtype.
- **Germ cell tumors** begin in the cells that produce eggs and are more common in younger people.
- **Stromal tumors** begin in the hormone-producing and structural tissues of the ovary.

Most of the immunotherapy information in this guide applies to epithelial ovarian, fallopian tube, and primary peritoneal cancers. Germ cell and stromal tumors may be treated differently. Your health care team can explain which information applies to your diagnosis.

What does staging mean?

Staging describes how far cancer has spread. Ovarian cancer is staged from Stage I to Stage IV. Stage I cancer is limited to your ovaries or fallopian tubes, while more advanced stages may involve other tissues in your pelvis or abdomen, lymph nodes, or distant parts of your body.

Understanding the stage of cancer can help your health care team recommend treatment options.

What type of oncologist treats ovarian cancer?

A gynecologic oncologist is a doctor who specializes in cancers of the female reproductive system and is trained in both cancer treatment and gynecologic surgery.

Because surgery is an important part of treatment for many people with ovarian cancer, people with suspected or newly diagnosed disease should discuss their treatment plan with a gynecologic oncologist whenever possible.

What about fertility, menopause, or sexual health?

Ovarian cancer and its treatment can affect fertility, hormone levels, and sexual health, including causing early menopause, vaginal dryness, discomfort during sex, or changes in sexual desire or body image.

If fertility is important to you, ask whether you should speak with a fertility specialist before treatment begins. Your health care team can also help manage menopause and sexual health concerns or refer you to a specialist.



Making a Decision: Understanding Immunotherapy

What is immunotherapy?

Immunotherapy is a type of cancer treatment that helps your immune system recognize and attack cancer cells. In ovarian cancer, the currently approved immunotherapies are immune checkpoint inhibitors (ICIs). ICIs block signals cancer can use to suppress immune cells, helping “release the brakes” so your immune system can respond more effectively.

Does immunotherapy work for everyone with ovarian cancer?

No. Immunotherapy has helped some people with ovarian cancer, but it does not work for everyone and is currently used only in certain situations.

For most people with newly diagnosed ovarian cancer, treatment generally begins with surgery and platinum-based chemotherapy rather than immunotherapy.

What genetic and biomarker testing might I need?

Genetic and biomarker testing can help guide treatment and identify hereditary changes that may also be important for your family. Your health care team may recommend hereditary cancer genetic testing, usually using blood or saliva, as well as tumor testing, which examines features of the cancer itself.

Testing may include:

Test / Biomarker	Why It May Matter
<i>BRCA1</i> and <i>BRCA2</i>	Can affect hereditary cancer risk and eligibility for some PARP inhibitors, which are a type of targeted cancer treatment
Homologous recombination deficiency (HRD)	Can help guide use of PARP inhibitors
Folate receptor alpha (FRα)	Can identify some patients who may benefit from certain antibody-drug conjugates (ADCs)
PD-L1	Can help determine eligibility for pembrolizumab (Keytruda®) in platinum-resistant ovarian cancer
Microsatellite instability (MSI) / DNA mismatch repair (MMR) / Tumor mutational burden (TMB)	Can identify some tumors that may respond to immune checkpoint inhibitors

What does “platinum-resistant” ovarian cancer mean?

Platinum-based chemotherapy, such as carboplatin or cisplatin, is a mainstay of ovarian cancer treatment. Cancer that progresses during platinum treatment or returns within about six months afterward is often described as being platinum-resistant.

Whether ovarian cancer is platinum-sensitive or platinum-resistant can affect your treatment options, including whether a U.S. Food and Drug Administration (FDA)-approved immunotherapy may be appropriate.

Making a Decision: Understanding Immunotherapy (Cont.)

What immunotherapies are used for ovarian cancer?

Immune checkpoint inhibitors may be an option for certain people with ovarian cancer based on factors such as prior treatment, platinum-resistance, and tumor biomarkers.

Your Situation	What Immunotherapy May Be Used
PD-L1-positive, platinum-resistant cancer after one or two previous systemic treatments	Pembrolizumab with paclitaxel chemotherapy, with or without bevacizumab
Certain advanced tumors with MSI-H, dMMR, or TMB-H	Pembrolizumab
Certain recurrent or advanced dMMR tumors after previous treatment	Dostarlimab (Jemperli®)

What is a clinical trial, and when should I consider participating?

Clinical trials are carefully monitored research studies that test new treatments or new ways of using existing treatments. They may provide access to promising therapies that are not yet approved by the FDA.

Ask your doctor about trials at your treatment center or use CRI’s Clinical Trial Finder to explore options that you may be eligible for.



What to Expect:
Starting Treatment

How is immunotherapy for ovarian cancer given?

Pembrolizumab can be given by IV (intravenous) infusion or as a subcutaneous injection, while dostarlimab is given by IV infusion. Immunotherapy is typically given every three to six weeks, depending on the type and treatment plan.

For PD-L1-positive, platinum-resistant ovarian cancer, pembrolizumab is given with weekly paclitaxel chemotherapy, with or without bevacizumab. Your health care team can explain which form and schedule are appropriate for you.

What side effects should I expect?

Many people tolerate immunotherapy well, but side effects can occur because the immune system becomes more active and may affect healthy tissues. Common side effects may include fatigue, rash or itching, and diarrhea. Less commonly, immune-related side effects can affect the colon, liver, lungs, hormone-producing glands, or other organs.

If you receive immunotherapy with chemotherapy or bevacizumab, you may also experience side effects from those treatments. Tell your health care team about new or worsening symptoms as soon as possible, even if they seem minor.

What to Expect: Starting Treatment (Cont.)

How will I know if treatment is working?

Your health care team may use imaging scans, physical exams, blood tests, and changes in your symptoms to determine how well treatment is working.

For some people with ovarian cancer, levels of a blood protein called CA-125 may also help monitor treatment response. Your doctor will consider CA-125 results alongside scans, symptoms, and other information rather than relying on the blood test alone.



Looking and Living Forward: Post-Treatment Support

What ongoing care will I need?

Regular follow-up care helps monitor for recurrence and manage ongoing side effects. It may include physical exams, imaging, blood tests such as CA-125, and conversations about your physical and emotional well-being.

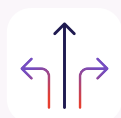
What if immunotherapy doesn't work or the ovarian cancer comes back?

Not everyone responds to immunotherapy, and it can be difficult if treatment does not work as hoped. If immunotherapy isn't effective or the cancer returns, your doctor may recommend additional chemotherapy, targeted therapy, immunotherapy, surgery, or a clinical trial.

Where can I find support from others affected by ovarian cancer?

Connecting with other people affected by ovarian cancer can provide practical and emotional support. You can explore personal stories and resources for people affected by cancer and immunotherapy.

Organizations such as the Ovarian Cancer Research Alliance (OCRA) and National Ovarian Cancer Coalition (NOCC) also offer additional educational resources, support programs, and peer connections for patients and caregivers.



What Comes Next?

No matter where you are in your journey — newly diagnosed, in treatment, or considering next steps — your questions matter. Keep asking. Bring support when you can. And let your health care team know how you're feeling, both physically and emotionally.

Appendix

10 Questions to Ask Your Doctor About Ovarian Cancer and Immunotherapy

Being diagnosed with ovarian cancer can feel overwhelming, and understanding your treatment options can make a big difference. Asking questions can help you take an active role in your care, make informed decisions, and feel more prepared as you move forward.

Here are 10 questions you may want to ask your health care team:

- 1 What exact type and stage of ovarian, fallopian tube, or primary peritoneal cancer do I have?
- 2 Should I be treated by or get a second opinion from a gynecologic oncologist?
- 3 Have I had both genetic testing and tumor biomarker testing?
- 4 Which of my genetic or biomarker results affect my treatment options, and do they have any implications for my family?
- 5 Is my cancer considered platinum-sensitive or platinum-resistant, and how does that affect my options?
- 6 Is immunotherapy a recommended option for me right now, and if so, which treatment or combination would I receive?
- 7 What side effects should I watch for, and when should I call you?
- 8 How will we monitor whether treatment is working, and what role will scans and CA-125 testing play?
- 9 Are there clinical trials I should consider now or in the future?
- 10 What support is available for me and my family, including emotional support, fertility or menopause care, financial resources, and help managing treatment?

Acknowledgements

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Glossary

Antibodies

Antibodies are proteins that bind to specific targets (antigens) and help mark them for destruction by your immune system.

Antibody-drug conjugates (ADCs)

Antibody-drug conjugates are targeted cancer treatments that link an antibody with a chemotherapy drug to deliver treatment directly to cancer cells.

Antigen

An antigen is any substance, such as a protein, that triggers an immune response. Cancer cells may have specific antigens that your immune system can recognize and target.

Biomarkers

Biomarkers are proteins, genes, or other features that provide more information about cancer, including how it may behave and how it might respond to treatment.

Biopsy

A biopsy is a procedure in which a small sample of tissue is removed and examined to check for disease, including cancer.

Chemotherapy

Chemotherapy, often called “chemo”, is a cancer treatment that uses drugs to kill fast-dividing cells. It can be used alone or in combination with other types of treatments.

Clinical trials

Clinical trials are research studies that evaluate new treatments to determine whether they are safe and effective.

Genetic mutations

Genetic mutations are changes in your DNA. Some are linked to cancer and may help predict how well certain treatments, including immunotherapy, will work.

Immune checkpoint inhibitors (ICIs)

Immune checkpoint inhibitors are a type of immunotherapy that help “release the brakes” on your immune system so it can better recognize and attack cancer cells.

Immune system

The immune system is a network of organs, cells, and molecules that protects your body from infections and diseases, including cancer.

Immune-related side effects (irAEs)

Immune-related side effects occur when your immune system becomes overactive and begins to affect healthy parts of your body. These side effects can involve organs such as your skin, colon, liver, lungs, or hormone-producing glands and may require prompt treatment.

Immuno-oncology

Immuno-oncology is the study and development of cancer treatments that use your body’s immune system.

Immunotherapy

Immunotherapy is a type of cancer treatment that uses your immune system to prevent, control, or eliminate cancer. It can be used alone or in combination with other treatment types.

Lymph nodes

Lymph nodes are small, bean-shaped structures located throughout your body that are part of your immune system. They help filter harmful substances and can trap cancer cells, which is why they are often checked to see if cancer has spread.

Metastatic disease

Metastatic disease refers to cancer that has spread through your blood or lymph system to form new tumors in other parts of your body distinct from the original site.

Proteins

Proteins are molecules that perform many essential functions in your body, including building tissues and supporting immune responses.

Recurrence

Recurrence is when cancer returns after treatment.

Remission

Remission is a decrease or disappearance of signs and symptoms of cancer. It is a time in which the disease is considered under control.

Staging

Staging describes how advanced a cancer is, including whether it has spread and how much of your body is affected.

Targeted therapy

Targeted therapy is a type of cancer treatment that blocks specific genes, proteins, or signals that help cancer cells grow and survive. It acts directly on cancer cells and is often used when tumors have certain genetic mutations, such as *BRCA1* or *BRCA2*.

Tumor

A tumor is an abnormal lump or mass of tissue. Tumors can be benign (non-cancerous) or malignant (cancerous).

Disclaimer

This information is intended for educational purposes only and is not a substitute for professional medical advice, diagnosis, or treatment. Always talk with your health care team about questions or decisions related to your care.

About CRI

The Cancer Research Institute (CRI) is a nonprofit organization dedicated to advancing the field of cancer immunotherapy through rigorous scientific research and global collaboration. Since 1953, CRI has been instrumental in uncovering the fundamental biology of the immune system and its application to cancer treatment, laying the groundwork for breakthroughs such as checkpoint blockade, cancer vaccines, and engineered cell therapies.

CRI's mission is to create a world immune to cancer by driving scientific discovery, accelerating collaboration, and turning breakthroughs into life-saving treatments. Our work bridges the gap between discovery and patient impact, ensuring that scientific innovation translates into real-world treatments.

To date, CRI has committed over \$600 million to research impacting more than 35 cancer types. Our funding strategy is built on the framework of People × Biology × Data: supporting world-class scientists, deepening understanding of tumor-immune system interactions, and harnessing data to guide discovery and translation. By uniting these elements, CRI catalyzes innovation through our global research ecosystem to drive the next generation of discoveries forward.



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