



Colorado Ovarian Cancer RESOURCE GUIDE

3rd Edition

Presented by

CO colorado ovarian
Ca cancer alliance
www.colorado-ovariancancer.org



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The information presented in this guide is not intended in any way to be a substitute for medical advice or professional counseling. Please always include your health care providers in any decisions you make regarding changes in nutrition, exercise routine, and before you include complementary, alternative or integrative care into your treatment regimen.

Sources are cited for information, and the descriptions of services are from the websites of those businesses or nonprofits included herein.



Ovarian Cancer Facts

Ovarian Cancer Staging & Cell Types

Ovarian Cancer Staging



Ovarian cancer staging is determined by your doctor at the time of surgery. The different stages describe the level of tumor cell involvement and how widespread the cancer is. Women with ovarian cancer are frequently diagnosed at Stage IIIC. This is because the symptoms of ovarian cancer are often ignored or misdiagnosed until urgent issues arise.

OVARIAN CANCER STAGING

by International Federation of Gynecology and Obstetrics (FIGO) Ovarian Cancer Staging - Effective January 1, 2014

Stage I

Tumor confined to ovaries.

Stage IA

Tumor limited to 1 ovary, capsule intact, no tumor on surface, negative washings.

Stage IB

Tumor involves both ovaries otherwise like IA.

Stage IC

The tumour is limited to one or both ovaries: IC1 - Surgical spill; IC2 - Capsule rupture before surgery or tumor on ovarian surface; IC3 - Malignant cells in the ascites or peritoneal washings.

Stage II

Tumor involves 1 or both ovaries with pelvic extension (below pelvic brim) or primary peritoneal cancer.

Stage IIA

Extension and/or implant on uterus and/or Fallopian tubes.

Stage IIB

Extension to other pelvic intraperitoneal tissues.

Stage III

Tumor involves 1 or both ovaries with cytologically or histologically confirmed spread to the peritoneum outside the pelvis and/or metastasis to the retroperitoneal lymph nodes.

Stage IIIA1

Positive retroperitoneal lymph nodes only.

Stage IIIA2

Microscopic, extrapelvic (above the brim) peritoneal involvement \pm positive retroperitoneal lymph nodes.

Stage IIIB

Macroscopic, extrapelvic, peritoneal metastasis (\leq) less than 2 cm \pm positive retroperitoneal lymph nodes. Includes extension to capsule of liver/spleen.

Stage IIIC

Macroscopic, extrapelvic, peritoneal metastasis ($>$) greater than 2 cm \pm positive retroperitoneal lymph nodes. Includes extension to capsule of liver/spleen.

Stage IV

Distant metastasis excluding peritoneal metastasis.

Stage IVA

Pleural effusion with positive cytology.

Stage IVB

Hepatic and/or splenic parenchymal metastasis, metastasis to extra-abdominal organs (including inguinal lymph nodes and lymph nodes outside of the abdominal cavity).

Other major recommendations are as follows:

- Histologic type including grading should be designated at staging.
- Primary site (ovary, Fallopian tube or peritoneum) should be designated where possible.
- Tumors that may otherwise qualify for stage I but involved with dense adhesions justify upgrading to stage II if tumor cells are histologically proven to be present in the adhesions.”

See: www.sgo.org/wp-content/uploads/2012/09/FIGO-Ovarian-Cancer-Staging_1.10.14.pdf

Recurrent ovarian cancer

This means that the disease went away with treatment but then came back (recurred).

Ovarian Cancer Cell Types



by Cancer Research UK

Epithelial cell types

“About 9 out of 10 tumours of the ovary diagnosed (90%) are this type. Epithelial ovarian cancer means the cancer started in the **surface layer** covering the ovary. There are various types of epithelial cancers of the ovary:

- Serous
- Endometrioid
- Clear cell
- Mucinous
- Undifferentiated or unclassifiable

Serous epithelial ovarian cancer is the most common type, making up about two thirds of the cases diagnosed. Doctors now think that most high grade [see grading info below] serous ovarian cancers actually start in cells at the far end of the fallopian tube, rather than the surface of the ovary. These early cancer cells then spread to the ovary and grow.

About 1 in 10 epithelial ovarian cancers (10%) are undifferentiated or unclassifiable. These tumours have cells that are so very undeveloped that it is not possible to tell which type of cell the cancer started from.”

www.cancerresearchuk.org/about-cancer/type/ovarian-cancer/about/types-of-ovarian-cancer

Germ cell types

“Around 1 or 2 out of 100 ovarian cancers (1 to 2%) are germ cell cancers. They start from the **egg making cells** of the ovary. As well as these, there are also non cancerous (benign) forms of germ cell tumour, which doctors sometimes call dermoid cysts.

Ovarian teratoma

Ovarian teratoma is a type of germ cell tumour. Germ cell tumours are cancers that begin in egg cells in women or sperm cells in men. There are 2 main types of ovarian teratoma.

Mature teratoma - which is benign

The mature teratoma is the most common type of ovarian germ cell tumour. It is most often diagnosed in women during their reproductive years (from teens to forties). Mature teratoma is often called a dermoid cyst. It is removed with surgery and the condition is then cured.

Immature teratoma - which is cancerous

Immature teratomas are usually diagnosed in girls and young women up to their early 20s. These cancers are rare. They are called immature because the cancer cells are at a very early stage of development. Most immature teratomas of the ovary are cured, even if they are diagnosed at an advanced stage.”

<http://www.cancerresearchuk.org/about-cancer/type/rare-cancers/rare-cancers-name/what-is-teratoma-of-the-ovary>

Stromal cell types

Granulosa tumors

“Granulosa tumours are rare tumours of the ovary. They are a type of stromal tumour. The stroma is the supportive tissue of the ovary. Out of 100 women with ovarian cancer, fewer than 5 will have a granulosa tumour (5%). There are 2 main types of granulosa tumours: 1) Functioning tumours, which produce hormones, 2) Non functioning tumours, which don't produce hormones. Functioning tumours make the female hormone estrogen.

Symptoms of granulosa tumors

The symptoms of functioning tumours are usually hormone related. These symptoms include: 1) Menstrual changes (periods). If you are still having periods they may become

irregular, they may be very heavy and you may bleed between periods.2) Vaginal bleeding. If you have had your menopause the most common symptom is vaginal bleeding. This happens because the hormones the tumour produces makes the lining of the womb thicker. This means that you may also need some tests to check your womb as well. 3) Breast tenderness. You may have breast tenderness and vaginal discharge due to the hormones. Other symptoms of granulosa tumours can include: Pain in the abdomen, swelling of the abdomen, constipation, passing urine more often than usual.”

www.cancerresearchuk.org/about-cancer/type/rare-cancers/rare-cancers-name/granulosa-tumours-of-the-ovary

Borderline ovarian tumours

“Borderline ovarian tumours are different to ovarian cancer because they do not grow into the supportive tissue of the ovary (the stroma). They are also called tumours of low malignant potential. About 10 out of 100 epithelial ovarian tumours (10%) are borderline tumours. Borderline ovarian tumours grow slowly and most are diagnosed at an early stage, when the abnormal cells are still within the ovary. Abnormal cells can sometimes break away from the tumour and settle elsewhere in the body, usually the abdomen. These do not usually grow into the underlying tissue. They are called non invasive implants. Borderline ovarian tumours are treated in a different way to ovarian cancers and are usually cured with surgery alone.”

www.cancerresearchuk.org/about-cancer/type/ovarian-cancer/about/types-of-ovarian-cancer

Primary peritoneal carcinoma

“A small number of ovarian cancers are a type called primary peritoneal carcinoma. The cancer develops from cells that form the membrane around abdominal organs. The peritoneum is a layer of thin tissue that lines the abdomen and covers all of the organs within it, such as the bowel and the liver. The peritoneum protects the organs and acts as a barrier to infection....Primary peritoneal cancer (PPC) is a rare cancer of the peritoneum. It is very similar to the most common type of ovarian cancer called epithelial cancer [see above]. This is because the lining of the abdomen and the surface of the ovary come from the same tissue when we develop from embryos in the womb. Doctors now think that most high grade serous cancers actually start in the far end of the fallopian tube rather than the surface of the ovary or peritoneum. PPC is always either stage 3 or stage 4. This is an advanced cancer. PPC does sometimes affect the ovaries but to be a PPC it must only be on the surface of the ovary.”

www.cancerresearchuk.org/about-cancer/type/rare-cancers/rare-cancers-name/primary-peritoneal-carcinoma



Ovarian Cancer Grading, Surgery, Chemotherapy & Blood Tests

Soft tissue sarcomas

Soft tissue sarcomas – cancers of the supporting tissues of the body, including the muscles, nerves, fat, blood vessels and fibrous tissues – can also affect the ovary.

Ovarian Cancer Grading



Grading ovarian cancer

“The grade of a cancer means how the cells look under the microscope. The appearance of the cells gives doctors an idea of how quickly or slowly the cancer is likely to grow. There are 3 grades of ovarian cancer

- Grade 1 or well differentiated
- Grade 2 or moderately differentiated
- Grade 3 or poorly differentiated (or undifferentiated)

As a normal cell grows and matures, it becomes specialized for its role and place in the body. This is called differentiation. Cancer cells can look very like normal cells and are described as well differentiated or low grade. These cancers are more likely to grow slowly.

If the cancer cells look underdeveloped and nothing like a normal cell, they are known as undifferentiated or high grade. These cancers tend to grow and spread more quickly than low grade cancers.”

www.cancerresearchuk.org/about-cancer/type/ovarian-cancer/treatment/stages-of-ovarian-cancer#grade

Ovarian Cancer Surgery



Ovarian Cancer Surgery

By National Comprehensive Cancer Network (NCCN)

“Surgery is used as the first and main (primary) treatment for most ovarian cancers. Primary treatment is the main treatment given to rid the body of cancer. NCCN experts recommend that ovarian cancer surgery should be performed by a gynecologic oncologist. A gynecologic oncologist is a surgeon who is an expert in cancers that start in a woman’s reproductive organs. Gynecologic oncologists and medical oncologists often work closely together to plan the best treatment for ovarian cancer. A medical oncologist is a doctor who is an expert in treating cancer with chemotherapy and other drugs. There are two main goals of surgical treatment for ovarian cancer. One goal is to find out how far the cancer has spread... The other goal of surgery is to remove all or as much of the cancer from your body as possible. To do so, the tumor is removed along with other organs and tissues where cancer cells have or might have spread.”

www.nccn.org/patients/guidelines/ovarian/#36

Tumor Assays:

Surgery Preparation

“It is possible to have a sample of tumor tissue sent to a lab and have it tested to determine sensitivity to various chemotherapy agents. In order for this to occur, the sample has to be taken at the time of surgery, kept fresh and shipped directly to the lab. As such, the decision to pursue this approach has to be made *before* surgery. The results can provide important information with regard to choice of chemotherapy. Helomics and Rational Therapeutics are labs that do this kind of testing.”

www.helomics.com

www.rational-t.com

Chemotherapy



Chemotherapy.com

“Whether you’re preparing for your chemotherapy journey or managing the side effects, this site has the information you need...every step of the way.”

www.chemotherapy.com

American Cancer Society—A Guide to Chemotherapy

www.cancer.org/acs/groups/cid/documents/webcontent/003025-pdf.pdf

Chemotherapy For Epithelial Ovarian Cancer

by American Cancer Society

“Chemo for ovarian cancer is most often a combination of 2 or more drugs, given IV every 3- to 4-weeks. Giving combinations of drugs rather than just one drug alone seems to be more effective in the initial treatment of ovarian cancer. The standard approach is the combination of a platinum compound, such as cisplatin or carboplatin, and a taxane, such as paclitaxel (Taxol®) or docetaxel (Taxotere®). For IV chemotherapy, most doctors favor carboplatin over cisplatin because it has fewer side effects and is just as effective. The typical course of chemo for epithelial ovarian cancer involves 3 to 6 cycles. A cycle is a schedule of regular doses of a drug, followed by a rest period. Different drugs have varying cycles; your doctor will let you know what schedule planned for your chemo. Most of the time, systemic chemo uses drugs that are injected into a vein (IV) or given by mouth. For some cases of ovarian cancer, chemotherapy may also be injected through a catheter (thin tube) directly into the abdominal cavity. This is called intraperitoneal (IP) chemotherapy. Drugs given this way are also absorbed into the bloodstream, so IP chemotherapy is also a type of systemic chemo.”

www.cancer.org/cancer/ovariancancer/detailedguide/ovarian-cancer-treating-chemotherapy

Chemo Ports - IV and IP

It is quite common to undergo minor surgery to have a port placed under the skin in the clavicle area for IV chemotherapy. The port helps to keep veins in the arm viable and makes it easier for chemo nurses to administer drugs and take blood samples. An intraperitoneal or “IP” port may also be placed in the abdominal area when the doctor chooses this additional course of delivery.

Intraperitoneal Chemotherapy (IP)

by American Cancer Society

“In intraperitoneal (IP) chemotherapy for ovarian cancer, in addition to giving the chemo drug paclitaxel IV, the drugs cisplatin and paclitaxel are injected into the abdominal cavity through a catheter (thin tube). The tube can be placed during the staging/debulking surgery, but sometimes it is placed later.... A needle can be placed through the skin and into the port to give chemo and other drugs.... Giving chemo this way gives the most concentrated dose of the drugs to the cancer cells in the abdominal cavity. This chemo also gets absorbed into the bloodstream and so can reach cancer cells outside the abdominal cavity... IP chemotherapy currently is only given to some of the women with ovarian cancer that has spread to the inside of the abdomen. It was only [originally] studied in women whose cancer had not spread outside the abdomen (stage III) and who had no tumors larger than 1 cm after surgery (optimally debulked). Also, because it can be so toxic, women must have normal kidney function and be in good overall shape for their doctor to be willing to try IP chemo. They also cannot have a lot of adhesions or scar tissue inside their abdomen because this can prevent the chemo from spreading well.”

www.cancer.org/cancer/ovariancancer/detailedguide/ovarian-cancer-treating-chemotherapy

Update on IP chemotherapy regarding study GOG

252: from Ovarian Cancer Research Fund Alliance

“Our scientific advisors don’t believe that the results of this one trial should outweigh the significant prior evidence that suggests that IP chemotherapy is beneficial. The best evidence to date suggests that the ideal treatment for women is optimal debulking followed by IP chemotherapy. At the very least, until results of ongoing trials are known, IP chemotherapy should still be offered to women who are likely to be able to tolerate the significant toxicities associated with the treatment.... OCRFA believes that like all good research, the results of GOG 252 raise more important questions for the ovarian cancer research community to tackle.”

www.ovariancancer.org/2016/04/11/ocrfa-statement-results-gog-252/

Low Blood Cell Counts

It may happen that during chemo, your white & red blood cells and platelet counts will drop below normal. This is generally treated with medication, transfusions or delaying chemo.

“Chemo Brain”

There is no standardized treatment for “chemo brain.” Check with your doctor if you are experiencing serious symptoms.

by American Cancer Society

“For years people with cancer have worried about, joked about, and been frustrated by the mental cloudiness they sometimes notice before, during, and after cancer treatment. Even though its exact cause isn’t always known, and it can happen at any time during cancer, this mental fog is commonly called chemo brain. Patients have been aware of this problem for some time, but only recently have studies been done that could help to explain it.” Read more about this at the following link, and talk to your doctor about options to relieve the symptoms.

<http://www.cancer.org/treatment/treatmentsand-sideeffects/physicalsideeffects/chemotherapyeffects/chemo-brain>

CA-125 Blood Test



CA-125 Blood Test

by the Ovarian Cancer Research Fund

“CA-125, which stands for “Cancer Antigen 125” is a protein that may be found in high amounts in the blood of patients with ovarian cancer. CA-125 is produced on the surface of cells and is released in the blood stream. This protein is elevated in more than 80 percent of women with advanced ovarian cancers, and in 50 percent of those with early-stage cancers. The CA-125 test is among the blood tests that may be ordered by a doctor if ovarian cancer is suspected. Because CA-125 misses half of early cancers and can be elevated by benign conditions, such as diverticulitis, endometriosis, liver cirrhosis, pregnancy, and uterine fibroids, the National Cancer Institute and the United States Preventive Services Task Force do not endorse using it to screen women for ovarian cancer who are at ordinary risk or in the general population. Research on new ways to use CA-125 to more accurately identify ovarian cancer is underway. CA-125, however, is approved by the Food and Drug Administration to monitor the effectiveness of treatment for ovarian cancer and for detecting disease recurrence after treatment.”

www.ocrf.org/about-ovarian-cancer/diagnosis-of-ovarian-cancer/what-is-ca125?gclid=CPqxr2X3sMCFQYJaQod4gsA1A

HE4 Blood Test



“HE4 is a novel serum biomarker that when combined with CA125™ significantly raises the level of sensitivity for the determination of risk of malignancy in patients presenting with a pelvic mass. HE4 is consistently expressed in patients with ovarian cancer, and it has demonstrated increased sensitivity and specificity over that of CA125 alone.”

www.he4test.com/row/about/index.html