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WINTER 2021

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# THE LATEST ON

## CHEMOTHERAPY

### BLOCKING A PROTEIN MAY LOWER CHEMO DOSES

Researchers have discovered a way to make chemotherapy more effective against HPV-related cervical cancer at a lower dose, which could mean fewer side effects. When they blocked a protein called TIGAR in cervical cancer cells, the cells surrendered to smaller amounts of chemo. The scientists hope that, in the future, a drug that blocks TIGAR could allow doctors to administer chemotherapy at lower doses. That may eliminate some of chemo's most serious side effects, such as liver and kidney damage.

SOURCE: *Journal of Antivirals and Antiretrovirals*

**2 in 3** Number of people on chemotherapy who lose their hair.

SOURCE: *Seminars in Cutaneous Medicine and Surgery*

**650,000** Estimated number of people who receive outpatient chemotherapy in the U.S. every year.

SOURCE: CDC

### A BREAST MRI MIGHT BE IN YOUR FUTURE

Many women get chemotherapy before surgery for breast cancer. But doctors have no way of knowing who will benefit from it. That means that some women get all the unnecessary side effects without any of the help. But that could soon change. In a new study, doctors used MRIs to detect the difference between breast tumors that would respond to chemotherapy and those that wouldn't. If future studies confirm this method, women might one day get breast MRIs to see if chemo is right for them.

SOURCE: *Oncotarget*

### PROBIOTIC SUPPLEMENTS COULD LESSEN CHEMO SIDE EFFECTS

New research suggests that redistributing bacteria in the gut could help prevent the gut-related side effects of chemotherapy, such as vomiting and diarrhea. In the study, scientists found that one type of gut bacteria can break down chemo drugs in the intestinal tract and protect other types of bacteria from the harmful side effects of these drugs. This finding could lead to probiotic supplements that shift the balance of bacteria to make it more protective against some of the stomach upset that goes along with chemotherapy. People would take the supplement along with cancer treatment to help reduce its unpleasant effects.

SOURCE: *mSphere*



JAVIER ZAYAS-PHOTOGRAPHY VIA GETTY IMAGES

# Neulasta® (pegfilgrastim) Onpro® helps you fight the risk of infection from home and reduces your risk of being hospitalized.\*



~1 million patients have used Neulasta® Onpro®.

Visit **Neulasta.com**

and learn if Neulasta® Onpro® is right for you.



Aim your phone's camera at the QR code above to visit Neulasta.com.



## Indication

Neulasta® is a prescription medicine used to help reduce the chance of infection due to a low white blood cell count, in people with certain types of cancer (non-myeloid), who receive anti-cancer medicines (chemotherapy) that can cause fever and low white blood cell count.

\*If, for any reason, you believe you did not receive your full dose of Neulasta® or that your on-body injector is not working correctly, immediately contact your healthcare provider, as an incomplete dose could increase infection risk.

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## Important Safety Information

**Do not** take Neulasta® (pegfilgrastim) if you have had a serious allergic reaction to pegfilgrastim or filgrastim.

**Before you receive Neulasta®, tell your healthcare provider about all of your healthcare conditions, including if you:**

- Have a sickle cell disorder
- Have had severe skin reactions to acrylic adhesives
- Are allergic to latex – The needle cap on the prefilled syringe contains dry natural rubber (derived from latex).
- Have kidney problems
- Are pregnant or plan to become pregnant. It is not known if Neulasta® may harm your unborn baby.
- Are breastfeeding or plan to breastfeed. It is not known if Neulasta® passes into your breast milk.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

### What are the possible serious side effects of Neulasta®?

- **Spleen Rupture.** Your spleen may become enlarged and can rupture while taking Neulasta®. A ruptured spleen can cause death. Call your healthcare provider right away if you have pain in the left upper stomach area or left shoulder tip area.
  - **A serious lung problem called Acute Respiratory Distress Syndrome (ARDS).** Call your healthcare provider or get emergency medical help right away if you have shortness of breath with or without a fever, trouble breathing, or a fast rate of breathing.
  - **Serious Allergic Reactions.** Neulasta® can cause serious allergic reactions. These reactions can cause a rash over your whole body, shortness of breath, wheezing, dizziness, swelling around your mouth or eyes, fast heart rate and sweating.
- If you have an allergic reaction during the delivery of Neulasta®, remove the on-body injector for Neulasta® by grabbing the edge of the adhesive pad and peeling off the on-body injector. Get emergency medical help right away.**
- **Sickle Cell Crises.** You may have a serious sickle cell crisis, which could lead to death, if you have a sickle cell disorder and receive Neulasta®.
  - **Kidney injury (glomerulonephritis).** Neulasta® can cause kidney injury. Call your healthcare provider right away if you develop any of the following symptoms: swelling of your face or ankles, blood in your urine or dark colored urine, or you urinate less than usual.
  - **Increased white blood cell count (leukocytosis).** Your healthcare provider will check your blood during treatment with Neulasta®.

- **Decreased platelet count (thrombocytopenia).** Your healthcare provider will check your blood during treatment with Neulasta®. Tell your healthcare provider if you have unusual bleeding or bruising during treatment with Neulasta®. This could be a sign of decreased platelet counts, which may reduce the ability of your blood to clot.
- **Capillary Leak Syndrome.** Neulasta® can cause fluid to leak from blood vessels into your body's tissues. This condition is called "Capillary Leak Syndrome" (CLS). CLS can quickly cause you to have symptoms that may become life-threatening. Get emergency medical help right away if you develop any of the following symptoms:
  - Swelling or puffiness and are urinating less than usual
  - Trouble breathing
  - Swelling of your stomach area (abdomen) and feeling of fullness
  - Dizziness or feeling faint
  - A general feeling of tiredness
- **Myelodysplastic syndrome and acute myeloid leukemia.** If you have breast cancer or lung cancer, when Neulasta® is used with chemotherapy and radiation therapy, or with radiation therapy alone, you may have an increased risk of developing a precancerous blood condition called myelodysplastic syndrome (MDS) or a blood cancer called acute myeloid leukemia (AML). Symptoms may include tiredness, fever, and easy bruising or bleeding. Call your healthcare provider if you develop these symptoms during treatment with Neulasta®.
- **Inflammation of the aorta (aortitis).** Inflammation of the aorta (the large blood vessel which transports blood from the heart to the body) has been reported in patients who received Neulasta®. Symptoms may include fever, abdominal pain, feeling tired, and back pain. Call your healthcare provider if you experience these symptoms.

The most common side effect of Neulasta® is pain in your bones and in your arms and legs.

These are not all the possible side effects of Neulasta®. Call your healthcare provider for medical advice about side effects. You may report negative side effects to the FDA at 1-800-FDA-1088.

Please see Neulasta® Brief Summary of Patient Information on the following page.

Neulasta® Injection: 6 mg/0.6 mL in a single-dose prefilled syringe for manual use only.

Neulasta® Injection: 6 mg/0.6 mL in a single-dose prefilled syringe co-packaged with the on-body injector (OBI) for Neulasta® (Neulasta® Onpro® kit).

## BRIEF SUMMARY OF PATIENT PACKAGE INSERT

### Neulasta® (pegfilgrastim)

This brief summary of the Patient Information for the on-body injector for Neulasta® provides information and instructions for people who will be receiving Neulasta® or their caregivers. This brief summary does not tell you everything about Neulasta®. This information does not take the place of talking with your healthcare provider about your medical condition or your treatment.

#### What is the most important information I need to know about receiving Neulasta® with the on-body injector for Neulasta®?

- See the Instructions for Use for the on-body injector for Neulasta® for detailed information about the on-body injector for Neulasta® and important information about your dose delivery that has been written by your healthcare provider.
  - Know the time that delivery of your dose of Neulasta® is expected to start.
  - Avoid traveling, driving, or operating heavy machinery during hour 26 through hour 29 after the on-body injector for Neulasta® is applied. Avoid activities and places that may interfere with monitoring during the 45-minute period that Neulasta® is expected to be delivered by the on-body injector for Neulasta®, and for 1 hour after delivery.
- A caregiver should be with you the first time that you receive Neulasta® with the on-body injector for Neulasta®.
- If placed on the back of the arm, a caregiver must be available to monitor the status of the on-body injector.
- If you have an allergic reaction during the delivery of Neulasta®, remove the on-body injector for Neulasta® by grabbing the edge of the adhesive pad and peeling off the on-body injector for Neulasta®. Get emergency medical help right away.
- You should only receive a dose of Neulasta® on the day your healthcare provider tells you.
- You should not receive your dose of Neulasta® any sooner than 24 hours after you finish receiving your chemotherapy. The on-body injector for Neulasta® is programmed to deliver your dose about 27 hours after your healthcare provider places the on-body injector for Neulasta® on your skin.
- Do not expose the on-body injector for Neulasta® to the following because the on-body injector for Neulasta® may be damaged and you could be injured: diagnostic imaging (e.g., CT Scan), MRI, Ultrasound, X-ray, radiation treatment, or oxygen rich environments, such as hyperbaric chambers.
- Avoid airport X-ray scans. Request a manual pat down instead. Use care during a manual pat down to help prevent the on-body injector for Neulasta® from being accidentally removed.
- Keep the on-body injector for Neulasta® at least 4 inches away from electrical equipment such as cell phones, cordless telephones, microwaves, and other common appliances. If the on-body injector for Neulasta® is too close to electrical equipment, it may not work correctly and can lead to a missed or incomplete dose of Neulasta®.
- The on-body injector is for adult patients only.
- If your on-body injector is not working properly, you may miss your dose or you may not receive your full dose of Neulasta®. If you miss your dose or do not receive your full dose of Neulasta®, you may have an increased risk of developing fever or infection.
- Call your healthcare provider right away, as you may need a replacement dose, if any of the following occur:
  - On-body injector for Neulasta® comes off before or during a dose delivery.  
Do not re-apply it.
  - On-body injector for Neulasta® is leaking.
  - Adhesive on your on-body injector for Neulasta® becomes noticeably wet (saturated) with fluid, or there is dripping. This may mean that Neulasta® is leaking out of your on-body injector for Neulasta®. If this happens you may only receive some of your dose of Neulasta®, or you may not receive a dose at all.
  - On-body injector for Neulasta® status light is flashing red.

#### What is Neulasta®?

Neulasta® is a prescription medicine used to help reduce the chance of infection due to a low white blood cell count, in people with certain types of cancer (non-myeloid), who receive anti-cancer medicines (chemotherapy) that can cause fever and low blood cell count. Do not take Neulasta® if you have had a serious allergic reaction to pegfilgrastim or to filgrastim.

#### Before you receive Neulasta®, tell your healthcare provider about all of your medical conditions, including if you:

- have a sickle trait or sickle cell disorder
- have had severe skin reactions to acrylic adhesives
- are allergic to latex. The needle cap on the prefilled syringe contains dry natural rubber (derived from latex).
- have kidney problems
- have any other medical problems

- are pregnant or plan to become pregnant. It is not known if Neulasta® may harm your unborn baby.
  - are breastfeeding or plan to breastfeed. It is not known if Neulasta® passes into your breast milk.
- Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

#### How will I receive Neulasta®?

See the Instructions for Use for detailed information about how you will receive a dose of Neulasta® with the on-body injector for Neulasta®, and how to remove and dispose of the on-body injector for Neulasta®.

#### What are the possible serious side effects of Neulasta®?

Neulasta® may cause serious side effects, including:

- **Spleen rupture.** Your spleen may become enlarged or may rupture during treatment with Neulasta®. A ruptured spleen can cause death. Call your healthcare provider right away if you have pain in your left upper stomach area or left shoulder.
- **A serious lung problem called Acute Respiratory Distress Syndrome (ARDS).** Call your healthcare provider or get emergency medical help right away if you have: fever, shortness of breath with or without a fever, trouble breathing, or a fast rate of breathing.
- **Serious allergic reactions.** Neulasta® can cause serious allergic reactions. These reactions can cause a rash over your whole body, shortness of breath, wheezing, dizziness, swelling around your mouth or eyes, fast heart rate and sweating.
- If you have an allergic reaction during the delivery of Neulasta®, remove the on-body injector for Neulasta® by grabbing the edge of the adhesive pad and peeling off the on-body injector for Neulasta®. Get emergency medical help right away.
- **Sickle cell crises.** You may have a serious sickle cell crisis, which could lead to death, if you have a sickle cell disorder and receive Neulasta®.
- **Kidney injury (glomerulonephritis).** Neulasta® can cause kidney injury. Call your healthcare provider right away if you develop any of the following symptoms: swelling of your face or ankles, blood in your urine or dark colored urine, or you urinate less than usual.
- **Increased white blood cell count (leukocytosis).** Your healthcare provider will check your blood during treatment with Neulasta®.
- **Decreased platelet count (thrombocytopenia).** Your healthcare provider will check your blood during treatment with Neulasta®. Tell your healthcare provider if you have unusual bleeding or bruising during treatment with Neulasta®. This could be a sign of decreased platelet counts, which may reduce the ability of your blood to clot.
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  - swelling or puffiness and are urinating less often than usual
  - trouble breathing
  - swelling of your stomach-area (abdomen) and feeling of fullness
  - dizziness or feeling faint
  - a general feeling of tiredness
- **Myelodysplastic syndrome and acute myeloid leukemia.** If you have breast cancer or lung cancer, when Neulasta® is used with chemotherapy and radiation therapy, or with radiation therapy alone, you may have an increased risk of developing a precancerous blood condition called myelodysplastic syndrome (MDS) or a blood cancer called acute myeloid leukemia (AML). Symptoms may include tiredness, fever, and easy bruising or bleeding. Call your healthcare provider if you develop these symptoms during treatment with Neulasta®.
- **Inflammation of the aorta (aortitis).** Inflammation of the aorta (the large blood vessel which transports blood from the heart to the body) has been reported in patients who received Neulasta®. Symptoms may include fever, abdominal pain, feeling tired, and back pain. Call your healthcare provider if you experience these symptoms.

The most common side effect of Neulasta® is pain in your bones, and in your arms, and legs. These are not all the possible side effects of Neulasta®. For more information, ask your healthcare provider or pharmacist.

#### What are the ingredients in Neulasta®?

Active ingredient: pegfilgrastim

Inactive ingredients: acetate, polysorbate 20, sodium and sorbitol in Water for Injection

**AMGEN®**

Manufactured by:  
Amgen Inc.  
One Amgen Center Drive  
Thousand Oaks, California 91320-1799  
www.neulasta.com  
1-800-77-AMGEN (1-800-772-6436)

This product, its production, and/or its use may be covered by one or more US Patents, including US Patent Nos. 5,824,784; 5,582,823; 5,580,755, as well as other patents or patents pending.  
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# STATS & FACTS

By Sonya Collins

Reviewed by Brunilda Nazario, MD, WebMD Lead Medical Director

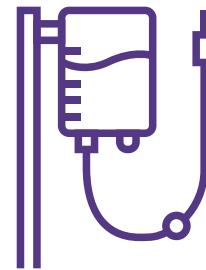
## 3 out of 5

Number of women preparing for chemotherapy who say that hair loss is the most disturbing aspect.



## 56%

Amount of women with stage III breast cancer who choose mastectomy followed by chemotherapy as their treatment plan.



## 9.8 million

Number of people worldwide who needed first-line chemotherapy (that is, before trying any other treatment) in 2018.

## 65,000

Estimated number of cancer doctors who administered chemo around the world in 2018.

## 15 million



Number of people expected to need first-line chemotherapy worldwide in the year 2040.

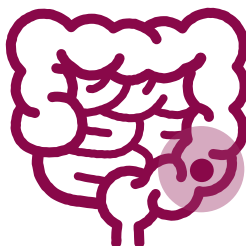
## 100,000

Estimated number of physicians the world will need to administer chemotherapy in 2040.



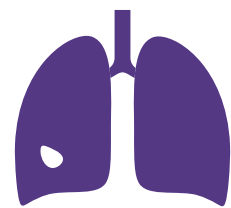
## 2 out of 3

Number of people with stage III colon cancer who receive chemotherapy.



## 63%

Amount of people with stage III non-small-cell lung cancer who receive chemotherapy and/or radiation.





# WHAT IS CHEMOTHERAPY?

## LEARN ABOUT THE PROS, CONS, AND PRECAUTIONS

By Sonya Collins

Reviewed by Brunilda Nazario, MD, WebMD Lead Medical Director

If you are living with cancer, especially a more advanced cancer, chemotherapy may be a part of your treatment plan.

“Chemotherapy interferes with the growth, multiplication, and reproduction of all cells in your body,” says Amy A. Hassan, MD, interim chair of the Department of General Oncology at The University of Texas MD Anderson Cancer Center in Houston.

If chemotherapy is a part of your treatment plan, here’s what you should know.

## HOW CHEMOTHERAPY WORKS

Chemotherapy can wipe out both cancer cells and normal cells. But, Hassan explains, it hits more cancer cells than normal cells.

“One of the hallmarks of cancer cells, unlike normal cells, is that they’re constantly growing and dividing. Chemotherapy interferes with that process.” Most normal cells, she says, are in a stable state. They are not in the process of dividing, multiplying, and growing at all times. As for those that are, chemotherapy could kill those, too.

## THE PROS AND CONS OF CHEMOTHERAPY

Chemotherapy is a “systemic” treatment. That means it goes

through your entire body.

“The advantage of that is that if there are any microscopic cancer cells anywhere, chemotherapy can kill those, whereas surgery cannot,” Hassan says. But, when you send a strong drug out to your entire body, there can be drawbacks. “Because it’s going all over your body, that’s where the side effects come from,” she says.

Not every person gets every side effect. In fact, some people don’t get any of them. Some of the most common side effects include extreme tiredness, hair loss, easy bruising and bleeding, low red blood cell counts (anemia), and febrile neutropenia. You could also lose your appetite, lose weight, and have nausea, vomiting, diarrhea, or constipation. Many people get mouth sores, have pain when they swallow, or have numbness, tingling, or pain in their hands or feet. So-called “chemo-brain” can make it hard to focus or concentrate.

Most side effects go away after you finish chemotherapy, but some, like organ

damage, can last a lifetime.

## WHEN YOU START CHEMOTHERAPY

If you’re starting chemotherapy, Hassan offers the following advice.

Each type of chemotherapy comes with slightly different risks and side effects. Ask your doctor beforehand what you can expect.

Know that medications and other remedies for chemo side effects are available to you. You don’t have to suffer in silence. Tell your health care provider what’s bothering you and ask if they can help.

Try to continue to live as healthy a lifestyle as possible. That includes getting some physical activity each day and eating healthy meals.

Finally, Hassan says, “Stay hydrated. You can get away with not drinking enough fluids when you’re otherwise feeling fine, but on chemotherapy, staying really well-hydrated is extremely important and often helps decrease some of the symptoms.”

# THE CHEMO EFFECT

## UNDERSTAND HOW TREATMENT AFFECTS YOUR BODY

By Jodi Helmer

Reviewed by Brunilda Nazario, MD, WebMD Lead Medical Director

You know that chemotherapy gives you the best shot of beating cancer, but the same drugs that kill cancer cells can also cause some unpleasant side effects.

“Cancer cells are multiplying constantly,” explains Arturo Loaiza-Bonilla, MD, MSED, FACP, medical director of clinical research at Cancer Treatment Centers of America in

Atlanta. “Chemo drugs stop that replication ... and the cancer cells die.”

In the process of targeting fast-growing cancer cells, some types of chemotherapy drugs also damage normal cells; other fast-growing cells including hair follicles and cells in the mouth, digestive tract, and reproductive system are the most likely to be damaged

during chemotherapy.

When normal (noncancerous) cells are damaged, it can trigger side effects ranging from fatigue, infection, and anemia to hair loss, mouth sores, loss of appetite, and febrile neutropenia, a fever related to a drop in white blood cells. It's not just the medication that causes side effects, Loaiza-Bonilla adds.

“The cancer cells growing in your body drain a lot of energy,” he says. “Fighting cancer puts your body in resting mode.”

In fact, research shows that 86% of those undergoing chemo as part of their cancer treatment report at least one side effect; 67% of cancer patients experienced six or more side effects during treatment. But that doesn't mean you have to suffer throughout

treatment.

Supportive therapies are offered to counteract the effects. If the side effects are severe, your oncologist may recommend a “treatment holiday,” or a short break from chemotherapy to provide some relief, Loaiza-Bonilla adds.

“Be proactive,” he says. “Communicate with your doctors. We're experts at dealing with side effects, but you need to tell us what you're experiencing.”

### 3 WAYS TO MANAGE SIDE EFFECTS

If you experience negative reactions from chemotherapy, these strategies can help.

- + **Exercise:** “Rest when you need to, but stay active,” says Arturo Loaiza-Bonilla, MD. Low-impact exercises can help alleviate fatigue.
- + **Consider medication:** Your oncologist may prescribe anti-nausea drugs, appetite stimulants, or other medications to help overcome common side effects.
- + **Wash your hands:** Chemo depresses your immune system, increasing your risk of infection. Wash your hands to prevent illness.



# HOW CHEMOTHERAPY WORKS

## LEARN MORE ABOUT THIS COMMON CANCER TREATMENT CHOICE

By Rachel Reiff Ellis

Reviewed by Brunilda Nazario, MD, WebMD Lead Medical Director

Chemotherapy is medicine that kills fast-growing cells. Cancer cells multiply much more quickly than other cells in your body, so chemo can help reduce or

even get rid of them. The way it does this is either by destroying cancer cells outright or by stopping their growth cycle in its tracks.

“Chemotherapy is used for cancer treatments because it has a good track record of killing cancer cells and increasing life span compared to not receiving treatments,” says Yung Lyou, MD, PhD, medical oncologist at City of Hope, a comprehensive cancer center near Los Angeles.

“We do take into consideration whether you’re healthy enough to endure the side effects,” he says. “For example, chemotherapy is usually offered only to people who are mobile and not bedbound for more than half the day. This increases the chances that even if there’s a decrease in quality of life, the added survival time would be worth it.”

Depending on your type and stage of cancer, your doctor may want you to take chemo to shrink tumors, to reduce pain and symptoms from tumors, to improve your quality of life, or to prepare you for other types of treatment.

“Additional therapies that can be potentially curative may work much

### GOALS OF TREATMENT

Doctors use chemo at different times and for different reasons. These include:

- + **Curative.** As the primary treatment to get rid of all the cancer cells and make the cancer go away in your body.
- + **Adjuvant.** For after surgery, to destroy any remaining cancer cells.
- + **Neoadjuvant.** For before surgery, to shrink tumors so doctors can operate on them.
- + **Palliative.** To ease signs and symptoms of the cancer but not to rid the body of all cancer cells.

### CHEMO IN YOUR BODY

“The object of all chemotherapy is to try and kill tumor cells or to limit the growth of cancer cells while minimizing damage to normal cells,” says John DiPersio, MD, PhD, deputy director of Siteman Cancer Center and chief of the Division of Oncology at Washington University School of Medicine in St. Louis.

Cells of your GI tract, mouth, bloodstream, and hair all grow quickly, and chemo can’t tell the difference between these cells and cancer cells as it destroys them. That’s why the most common side effects of chemo—nausea/vomiting, decreased appetite, hair loss, weakness, and febrile neutropenia—tend to involve these systems.

But doctors consider it an important tool for cancer treatment, despite its side effects, if the outcome is worth it.

## CHEMO FACTS

Yung Lyou, MD, PhD, shares good-to-know chemo information.

- + **It's different for everyone.** Just because someone else you know had a difficult experience doesn't mean the same thing will happen to you.
- + **It's adjustable.** If you have side effects, the dose can be reduced and adjusted to improve your quality of life.
- + **It's optional.** If at any point you decide you want to stop chemotherapy due to the side effects, that's always an option. However, if your oncologist thinks it will benefit your overall survival, I recommend trying it for at least one dose and keeping an open mind.

better with less or minimal disease than with bulky or significant disease, and chemo can help make that happen," DiPersio says.

### HOW YOU GET IT

Doctors decide which delivery method you'll use for your chemo based on your type and stage of cancer and where it is in your body. You might take your chemo in one of the following forms:

**Intravenous (IV) therapy.** With this method, a technician inserts chemo drugs into one of your veins through a tube with a needle in your arm or into a device in a vein in your chest. "Most chemotherapies are given intravenously

in a special infusion center where nurses can administer the drugs and monitor patients for any side effects or adverse reactions," Lyou says.

**Pill, capsule, or liquid.** Newer chemotherapies come as pills, which you can take at home on your own. You may take them daily or with breaks in between doses.

**Shots.** You may get your chemo as an injection in a muscle or under the skin in your arm, leg, or belly. Some shots go directly into one of your blood vessels.

**Creams.** Sometimes topical chemotherapy is the best choice for certain types of skin cancers. You get the ointment or cream at

the pharmacy and apply it at home.

### HOW LONG YOU TAKE IT

The length of each chemotherapy treatment depends on what kind of combination chemotherapy you're getting. "The duration can range from 1 hour to several days of IV infusions," Lyou says. "The typical chemotherapy session lasts for 2 to 3 hours in an outpatient infusion clinic."

If you're taking chemo to rid your body of cancer, you could have a course that's as short as a few days. For cancers that are considered chronic and need chemo treatment to reduce symptoms, you could take it for years—or as long as it keeps working.

# HOW I SURVIVED

## FROM DIAGNOSIS TO TREATMENT AND THE SUPPORTIVE GROUP OF FRIENDS AND FAMILY THAT GOT ME THROUGH

By Kara Vona

Reviewed by Brunilda Nazario, MD, WebMD Lead Medical Director

I was a newly single parent to a 3-year-old 1 month away from my 40th birthday when I was diagnosed with cervical cancer. It's hard to think clearly when you're reeling from the news of a cancer diagnosis and thinking of all the things you have to do. Trying to wrap your head around your treatment options at the same time is a lot to deal with at once.

One slight comfort was that four separate doctors all agreed that a combination of radiation and chemo was the best course of treatment for me. My cancer hadn't metastasized beyond the area, but it was large enough that

surgery wasn't an option. I would have radiation targeted at my pelvic region, along with a low dose of chemotherapy once a week for 5 weeks.

The doctors told me they had seen my cancer scenario many times, and although they didn't typically like to use the word "cure" in cancer, they felt confident that the treatment would take care of it. It was helpful for me to know the scope and goal of my treatment up front: a 5-week series that would be over by Christmas. I had never been so happy to see the arrival of Christmas trees in stores as I was during those weeks. It meant the end was in sight.

The goal of my chemo was to heighten the effect of the radiation. And so I started both types of treatment on the same day. I went to an infusion lab to get my chemo through an IV. There were rows of comfy chairs filled with other people also getting some variation of the same thing. It was both comforting and sobering to have this company. Some people there were very sick. I still think about those people sometimes. I was also able to feel grateful that my cancer was caught early and that the treatment would most likely be effective.

The thing about chemo is that it gets harder as it goes on because the effects



GW002D VIA GETTY IMAGES



## KARA'S TIPS

Comfort items for your chemo course.

- + **Puzzles.** These brainteasers help pass the time during insomnia spells.
- + **Ginger candies.** Out of desperation one day, I tried these for my nausea and was surprised how well they helped calm it.
- + **Herbal tea.** I make herbal remedies and found that tea with calendula, a plant that supports the healing of skin lesions, helped with mouth sores.

build up. The aftereffects of the first session weren't so bad. I was really nauseous, but that was it. But the symptoms after the next sessions got worse and worse. I was lucky not to lose my hair, but I got really tired and dealt with sores in my mouth. It's just the nature of the beast: Chemo can be downright unpleasant.

I've had several friends and family members who've gone through chemo in the past. It was hard as I went through my own treatment not to think about those who hadn't made it. Often, I would want to turn to a friend who understood my experience, and it would hit me again

that they were no longer living. It was important for me to not keep these hard feelings—survivor's guilt, fear—quiet, because I tend to get depressed when I feel overwhelmed. I want to hunker down and hibernate and not reach out anymore.

But one of the greatest lessons I learned during this time was how to be vulnerable and accept help from others. My mom moved in with me. Neighbors invited my kid over for playdates so I could have some quiet. Someone started a meal train for me, and friends—and even strangers—left food on my porch. A scientist friend of

mine helped by reading articles for me when I had questions so that I wouldn't go down scary rabbit holes on the internet. I was so touched by the different ways people supported me during that time.

I took time during one of my chemo infusion days to write a social media announcement about what I was going through. I asked outright for prayers and well-wishes. And it really felt better, knowing that I had friends who were rooting for me. Even though they weren't physically in the infusion room, I could feel that I had a community surrounding me.

# SET UP FOR SUCCESS

## HOW TO SUPPORT YOURSELF OR A LOVED ONE THROUGH TREATMENT

By Rachel Reiff Ellis

Reviewed by Brunilda Nazario, MD, WebMD Lead Medical Director

Chemotherapy is a valuable life-extending treatment for many, but it can also take a physical and mental toll. Comfort and support are vital as you or a loved one goes through it.

“Chemotherapy is like a sledgehammer,” says Arlene D. Cruz, nurse clinician in medical oncology at Rutgers Cancer Institute of New Jersey. “It’s a powerful tool that does the job, but it affects more than just the cancer cells.”

These strategies can help you and your caregiver manage the course, no matter how bumpy.

**Prep for side effects.** Chemo attacks all the fast-growing cells in your body, from hair follicles to cells in your mouth and all the way down your GI tract. It’s common to deal with a host of physical discomforts, from mouth sores and hair loss to fatigue and vomiting. And because there is a lot going on in your body, some of those symptoms can be really uncomfortable. “Be aware of some of the typical milestones you could cross and what they might feel like, so you can prepare for them,” says Erin Dickman, oncology clinical specialist at Oncology Nursing Society in Columbus, OH.

For example, she says, if you know you’ll get your chemo through a port in your chest, you might want to think about what type of clothing will work best with that. Or if you’re likely to lose hair, you can have hats or scarves on hand.

### SIMPLE SELF-CARE

Try these gentle practices during and after your chemo course.

- + Keep a journal of your thoughts and feelings.
- + Spend time on a hobby you love.
- + Protect your time—say no to visits or tasks when you need to.
- + Choose nourishing foods and move your body in ways that feel good.
- + Try aromatherapy with scents like peppermint, lavender, or ginger.

**Ask for help.** Some days will be harder than others. Learn how to tap into a support system when you need it. You may not always know what you need, but by allowing others to step in, you'll take some of the mental and physical load off your shoulders. "It takes a village to get through the cancer journey," Dickman says. "Use that village."

**Acknowledge grief.** The schedule and side effects of chemo can keep cancer at the front of your mind. You may feel a lot of grief, not only about death and dying, but also about changes in your appearance or a loss of identity. "A life that used to revolve around work, entertainment, and family, now revolves around doctor appointments, appointments for radiological tests, blood work, and treatment," Cruz says. You need time and space to process what you're going through and let out your emotions. If you're the caretaker,

you may also be grieving. Find time to go outside, take a walk, or find a friend to talk to so you can process your own feelings.

**Track energy highs and lows.** This can be an especially helpful job for a caregiver. Write down the times of day you notice yourself or your loved one feeling more energetic and the times you feel depleted. See if there are patterns you can tap into so you can have a better idea of what to expect of your day. "Journaling when you have energy and when you're depleted is helpful for aligning activities—like a mood-lifting walk outside in the fresh air or visit with a friend—with the time of day you have the energy to do them," Dickman says.

**Give yourself grace.** Chemotherapy treatment can come with a lot of stress. Try not to add to it by judging how "well" you're handling it. "Allow yourself to

## WAYS TO STEP IN

Arlene D. Cruz, RN, BSN, OCN, offers practical advice on how to be there for a loved one.

- + Cook them a meal.
- + Offer to babysit.
- + Clean their house.
- + Give them a ride to and from a procedure.
- + Be a listening ear—something as simple as letting them express how they're feeling can be healing.

start each day new, no matter what happened the day before," Dickman says. "Maybe you didn't move as much or eat as much as you would have liked, but approaching each day with a fresh slate instead of judgment gives you another opportunity to do the things you set out to do."

# A pancreatic cancer diagnosis can bring about many emotions.

Hope is finally one of them.



Stand Up To Cancer Ambassadors  
TIFFANY HADDISH &  
MARLON WAYANS

Photos By  
Koury Angelo &  
Matt Winkelmeier

When you or someone you love is facing a pancreatic cancer diagnosis, access to cutting-edge treatments can help make long-term survival possible and improve future patient outcomes.

That's why Stand Up To Cancer and the Lustgarten Foundation have teamed up to bring over 30 pancreatic cancer clinical trials to those who need them.

For more information about the latest pancreatic cancer research and clinical trials near you, visit **[PancreaticCancerCollective.org](https://PancreaticCancerCollective.org)**.



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