

Chemotherapy & Immunotherapy Education Class

UC DAVIS
HEALTH

**COMPREHENSIVE
CANCER CENTER**

Before we start

- This online class provides general information on chemotherapy, targeted therapy, and immunotherapy for cancer patients.
- For more specific information on your treatment plan, please contact your oncology team
- Please refer to your resource binder for more information regarding:
 - Contact information for your team and departments at UC Davis Comprehensive Cancer Center
 - Your treatment therapy plan
 - Resource information



What will we discuss today?

- What is chemotherapy and immunotherapy
- Preparing for your first day of therapy
- What to expect when getting chemotherapy or immunotherapy
- Feeling your best during your therapy
- Supportive Oncology and Survivorship Resources



Where do I go for treatment?

South Infusion 1st floor



North Infusion 3rd floor



Some chemotherapy may be given during a scheduled admission to the Davis 8 unit in the hospital.

Rocklin Infusion



What should I expect and bring for my first treatment?

- Rest the night before, eat a light meal before coming to your appointment and try your best to relax
 - You have some of the BEST UC Davis Health team members who will take great care of you!
- First infusion treatment is often longer than subsequent treatments
 - Infusion nurse (RN) will review your treatment plan, medication side effects and home medications with you
 - Some treatment medications are given more slowly during the first infusion



What should I expect and bring for my first treatment?

- What should I know about my first infusion appointment?
 - You may bring someone with you
 - One visitor permitted in the Infusion Room at a time
 - No children less than 13 years old are allowed in the infusion room
 - Your home medications (nausea & pain medications) that your doctor ordered
 - Infusion nurse (RN) will review during your visit to ensure you understand how to take them
 - Bring something to occupy your time
 - Wi-Fi available for media devices, please use ear buds or head-phones
 - Bring a small snack or meal
 - Juices, coffee, tea, water, crackers and a microwave are available for patients
 - No refrigerator is available for use
 - Please be mindful of strong-smelling foods
 - Dress in layers - Wear comfortable clothing
 - The temperature can fluctuate in the infusion room



How do you contact us?

- Important Cancer Center contact information is in your resource binder
 - **Cancer Center: 916-734-5959** (during business hours)
 - Cancer Center Infusion
 - Cancer Center Clinic (Monday – Friday 8am-5pm)
 - **For Urgent Issues when the clinic is closed call: 916-734-2011**
 - Rocklin Infusion Center 916-295-5880
 - UCD Radiation Oncology 916-734-5810
 - Davis 8 Oncology for Scheduled Admissions 916-703-3080
 - Patient relations (compliments or complaints) 916-734-9777

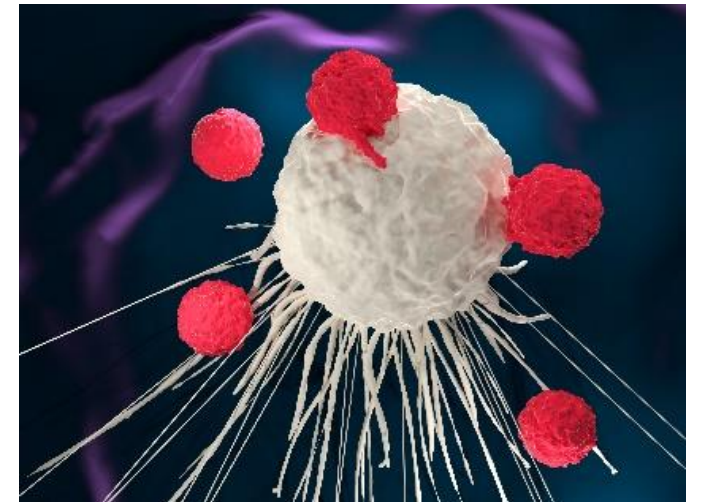


What is chemotherapy & immunotherapy?

- Chemotherapy
 - Drugs used to treat cancer by destroying or controlling fast growing cancer cells
- Immunotherapy
 - Drugs used to activate cells of your immune system to attack cancer cells
- Targeted therapy
 - Targeted therapies act on specific molecular targets that are associated with the growth and spread of cancer cells
- Many kinds of therapy and ways to give it
 - Your treatment plan may include a single medication, or combination of medications, given on different schedules
 - Examples of ways to give the treatment: short infusions, continuous infusion, orally, subcutaneous or intramuscular injections

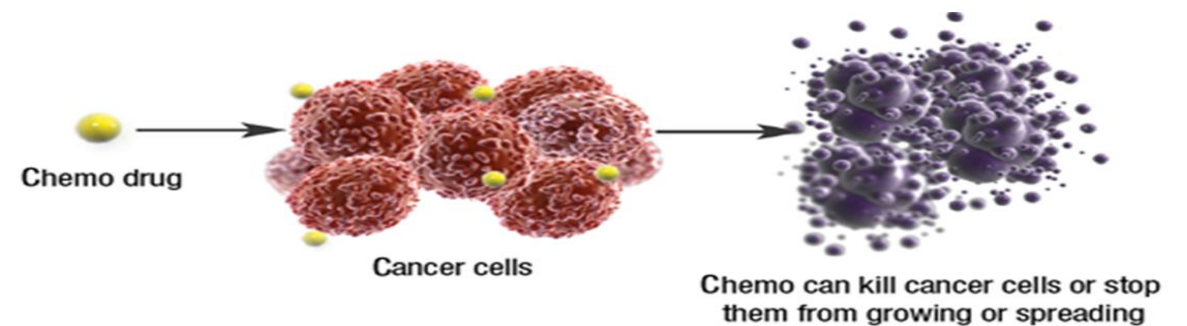
What factors determine treatment options?

- Why do people with the same cancer get different cancer treatments?
 - Type and stage of cancer
 - Current standard of treatment for type of cancer
 - Age and overall general state of health of patient
 - If the cancer has metastasized (gone to other parts of body)
 - Past exposure to cancer treatment(s)
 - Either for the same or different type of cancer or another diagnosis treated with chemotherapy
 - Depends on the individual goal of therapy
 - Neoadjuvant, adjuvant, curative, remission, palliative



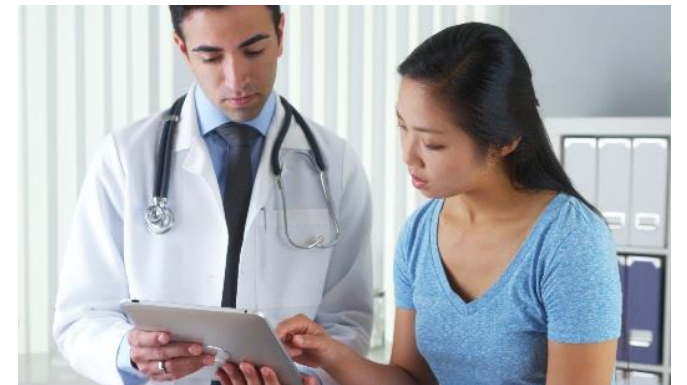
What is the goal of chemotherapy & immunotherapy?

- To Cure the Cancer
 - Eliminate cancer cells until they are no longer detected in the body
- To Control the Cancer
 - Stop cancer cells from growing or spreading to other parts of the body
 - Cause remission (signs and symptoms of cancer are reduced) - can be partial or complete
- To Ease Cancer Symptoms
 - Reduce or control non-curative cancer pain and symptom relief
 - Improve quality of life



What is the goal of Clinical Trials?

- To answer a specific question
 - If a promising investigational drug will work on my cancer
 - If a newly approved drug/treatment works better than current standard treatment
- Is a clinical trial an option for me?
 - Talk to your doctor if a clinical trial is available or a good option
 - Patients are educated, screened, and consent obtained before enrolled
 - Patients can stop participation at any time if they choose
- Health.ucdavis.edu/cancer/office-clinical-research/index.html



How are chemo and other cancer treatments given?

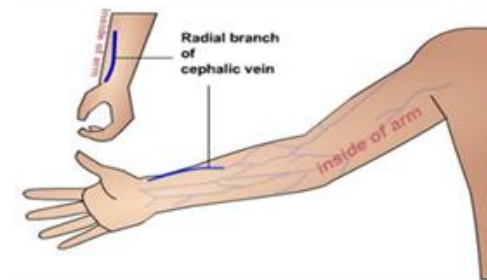
- Most are administered in one of these ways
 - Orally - by mouth
 - Intravenous – IV
 - Injections
- Other Routes
 - Topically - on skin
 - Intrathecal (IT)
 - Intraperitoneal (IP)
 - Intravesical



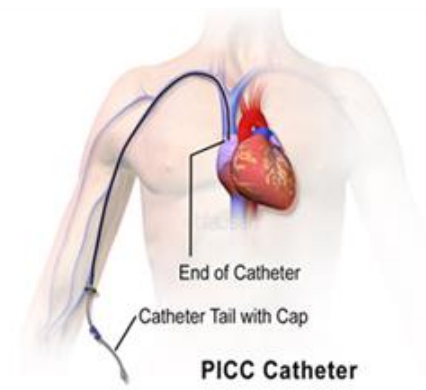
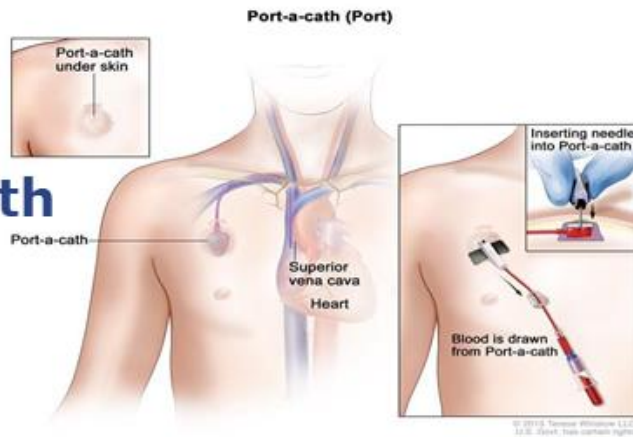
What are the different types of intravenous lines?

- Peripheral IV
 - Most common IV method
- Tunneled Catheter (i.e., Port-a-Cath)
 - Implanted venous device
- PICC (Peripherally Inserted Central Venous Catheter)
 - Catheter tip advanced until ends in large vein near the heart

Peripheral IV



Port-a-Cath



PICC



Are treatments painful?

- Your infusion treatments should not be painful
 - Tell your nurse immediately if you feel burning, stinging, swelling or other discomfort during your infusion
 - When you get home, if you feel **pain, swelling or have redness** at or near the infusion site, call the Cancer Center Adult Clinic. If the clinic is closed, call the oncology after-hours on-call physician number: 916-734-2011
 - For comfort you may apply warm compresses to infusion area, however, do not apply if red and swollen.



What does my treatment cycle look like?

- Treatment cycles are protocol specific
 - Treatment regimens are designed specific to each type of cancer for optimal results and the least amount of side effects.
- Common treatment cycles are every 14, 21 or 28 days
 - Typically, you will see your doctor or nurse practitioner a few days prior to your next cycle
 - You will have blood work done regularly to monitor response to treatment
 - Please review the copy of your treatment plan which is in your binder

Why is it important to stay on schedule?

- Receiving the prescribed dose of chemotherapy/immunotherapy according to the original treatment plan schedule offers the best chance of desired benefit from treatment.



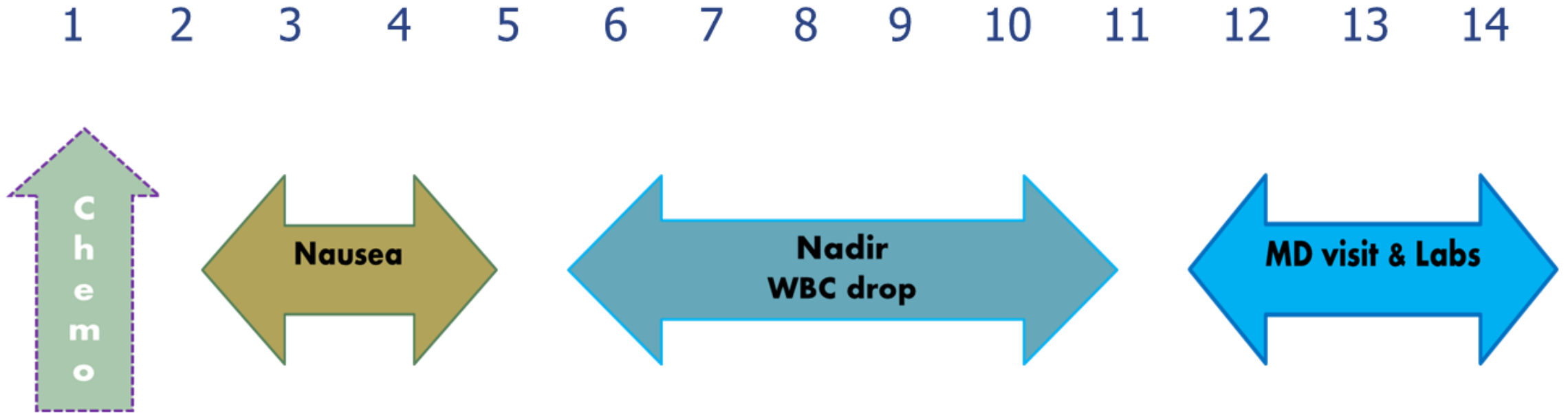
What would cause treatment delays?

- Why would my treatment be delayed?
 - If blood work is not done prior to treatment
 - If blood work results are not within safe limits for treatment
 - If you do not keep appointments with your doctor or nurse practitioner
 - If treatment-related side effects need to be managed prior to continuing therapy
 - Especially if side effects become progressive and severe
- What happens if my infusion treatment is cancelled?
 - It is **IMPORTANT** to call the Adult Infusion Center to reschedule as soon as possible



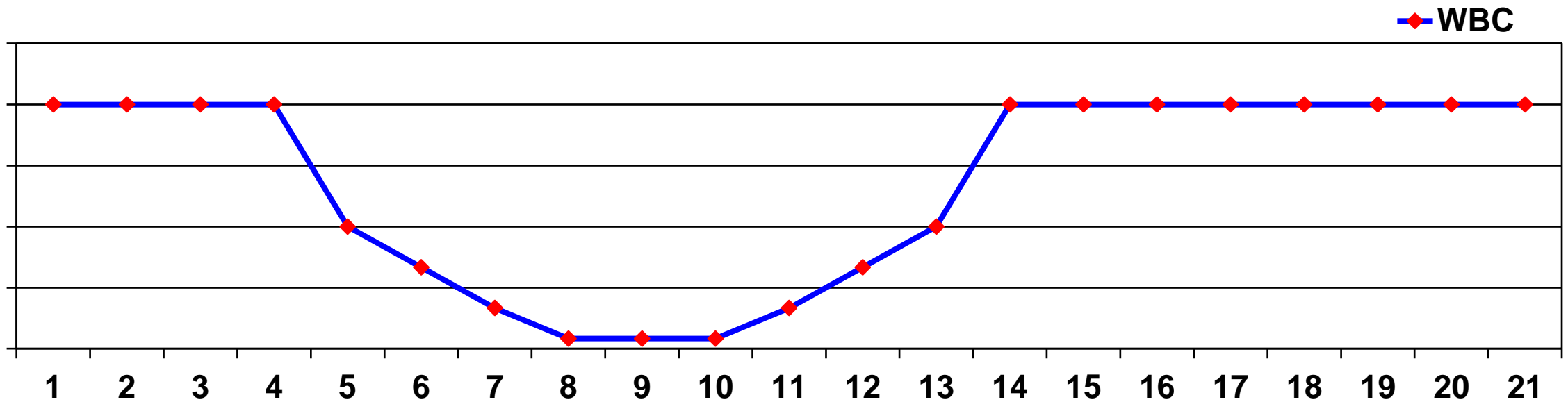
What happens during the treatment cycle?

Typical 14-day cycle:

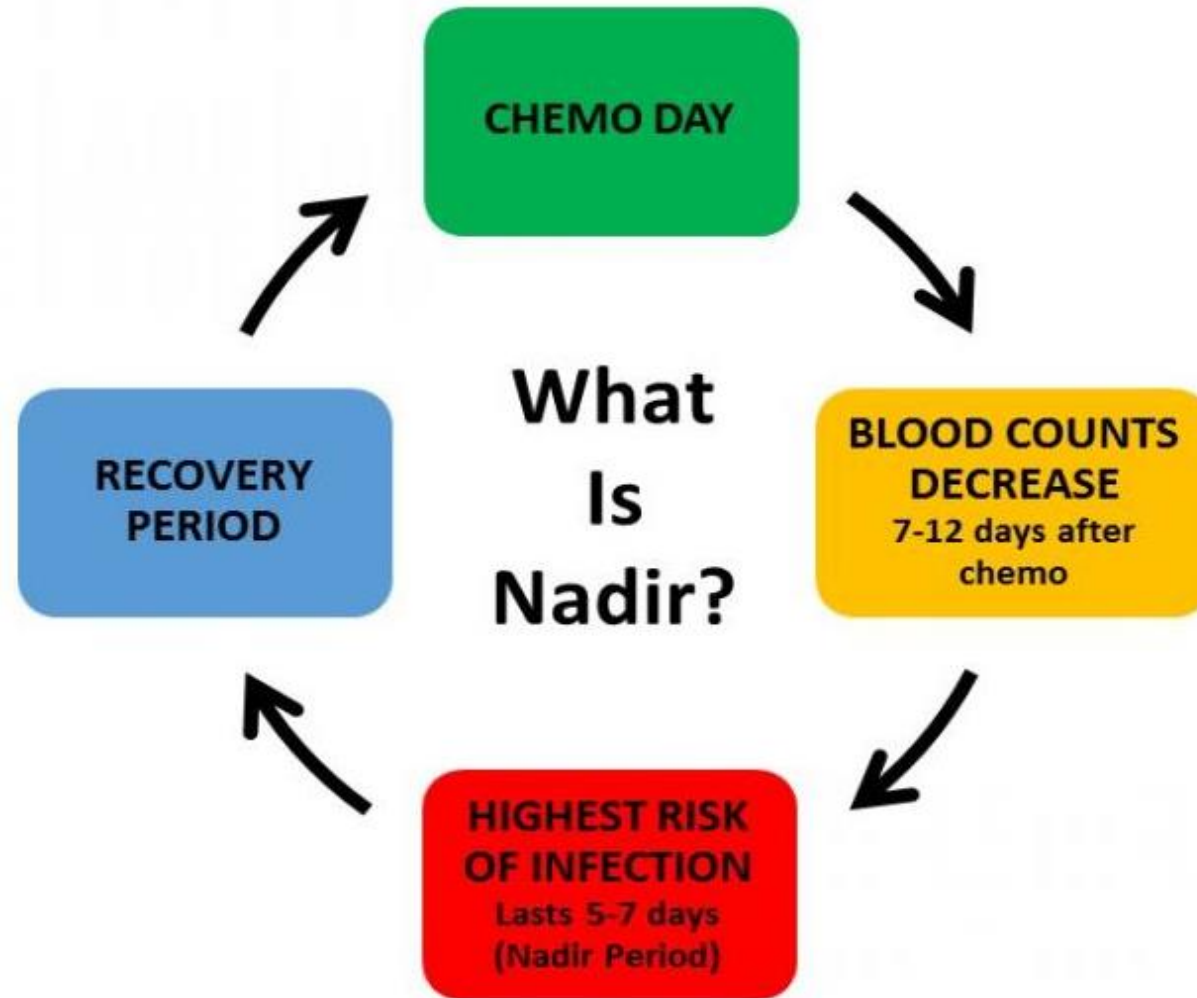


What happens during the treatment cycle?

- Example of a 21-day chemo nadir cycle
 - Chemotherapy may cause a drop in WBC which is reflected in the nadir
 - Most common time for side effects is between 6-10 days after chemo
 - Drop in WBC can increase risk of developing an infection



What happens during my treatment cycle?

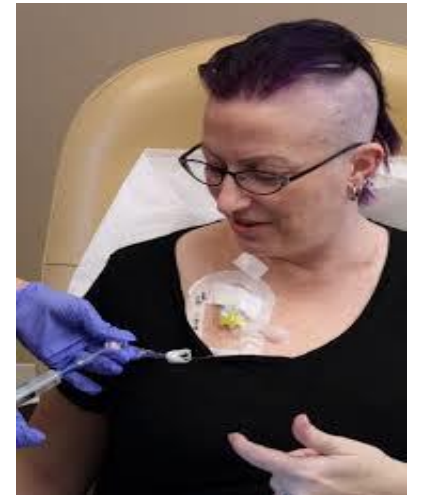


What can my treatment schedule look like?

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 **Labs due	5 <u>Treatment</u> Cycle 1 day 1	6 Cycle 1 day 2	7 Cycle 1 day 3	8 Cycle 1 day 4	9 Cycle 1 day 5
10 Cycle 1 day 6	11 Cycle 1 day 7 **Labs due	12 <u>Treatment</u> Cycle 1 day 8	13 Cycle 1 day 9	14 Cycle 1 day 10	15 Cycle 1 day 11	16 Cycle 1 day 12
17 Cycle 1 day 13	18 Cycle 1 day 14	19 Cycle 1 day 15	20 Cycle 1 day 16	21 Cycle 1 day 17	22 Cycle 1 day 18 Office Visit for Cycle 2	23 Cycle 1 day 19
24 Cycle 1 day 20	25 Cycle 1 day 21 **Labs due	26 <u>Treatment</u> Cycle 2 day 1	27 Cycle 2 day 2	28 Cycle 2 day 3	29 Cycle 2 day 4	30 Cycle 2 day 5
31 Cycle 2 day 6	Cycle 2 day 7 **Labs due	<u>Treatment</u> Cycle 2 day 8	Cycle 2 day 9	Cycle 2 day 10	Cycle 2 day 11	Cycle 2 day 12

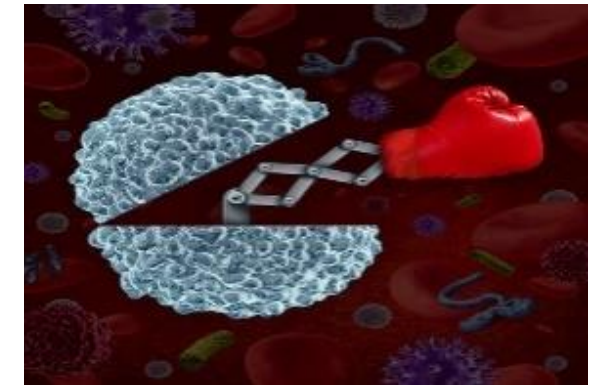
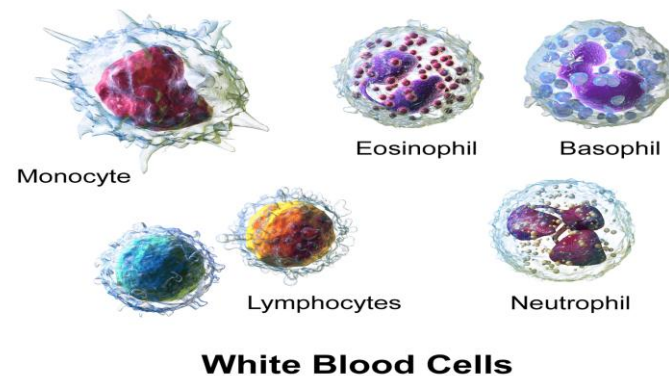
What do I need to know about my labs & blood counts?

- Why do you get labs done prior to your treatment?
 - Your blood work will be reviewed to determine if it is safe for you to get treatment.
 - Typically, labs should be done **within 3 days prior** to treatment.
 - This ensures we have results, and that it is safe for you to receive treatment.
- What are the typical lab tests ordered?
 - CBC: Complete Blood Count
 - Provides information of three types of cells in your blood
 - WBC, RBC and platelets
 - CMP: Comprehensive Metabolic Panel
 - Provides information about how treatment is affecting your body/organs



What is WBC? = White Blood Count

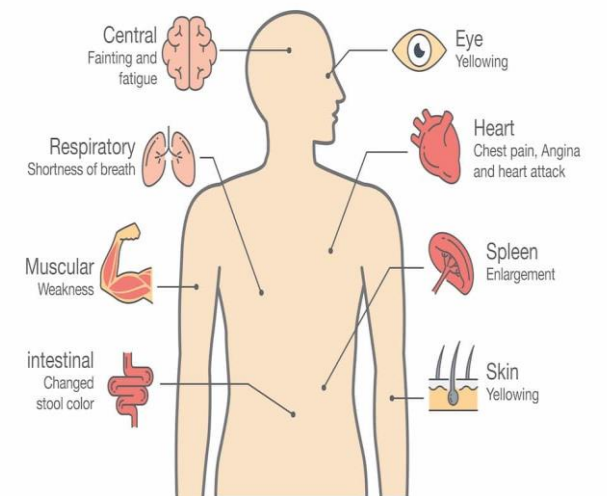
- Why are my white blood cells important?
 - White blood cells help my body fight off infection
 - Some therapies may decrease your white blood cells or cause your body to make them at a slower rate than normal
- What does it mean to be neutropenic?
 - Neutropenia is when your WBC are low, which may cause a delay in treatment
 - Neutrophils are the first type of WBC to fight infection
 - Your doctor may order a medication to help your body build white blood cells



What is RBC? = Red Blood Cells

- What do I need to know about my red blood cells?
 - RBCs carry oxygen from the lungs to the tissues of the body
 - Hemoglobin (Hgb) - is a red blood cell specially designed to carry oxygen throughout your body
 - Some treatments may decrease your RBCs or cause your body to make them at slower rate than normal.
- What are some of the common symptoms of low RBCs?
 - Feeling tired or fatigued
 - Feeling short of breath with activity
 - Having a headache or dizziness
 - You might have NO symptoms
- **Severe fatigue, shortness of breath or dizziness should be reported to your doctor.**

SYMPTOMS OF ANEMIA



What are platelets?

- What should I know about my platelets?
 - Platelets are cells that help blood to clot and prevent bleeding
 - Some treatments may decrease your platelets or cause you to body to make them at a slower rate than normal
- What are some of the symptoms of low platelets?
 - Bruises or small purple spots on your body
 - Nose bleeds that are not easily stopped
 - Bleeding gums
- Call the clinic for any abnormal bleeding
 - If you notice blood in urine or stool
 - Go to EMERGENCY ROOM or call 911 if you are unable to stop the bleeding



Why does my treatment cause side effects?

- Chemotherapy kills or damages all rapidly growing cells
- Immunotherapy and targeted therapy activate your immune system which can cause side effects
- Treatment can affect healthy cells which can cause side effects
- Most side effects stop when treatment is finished, or some will slowly diminish

Hair



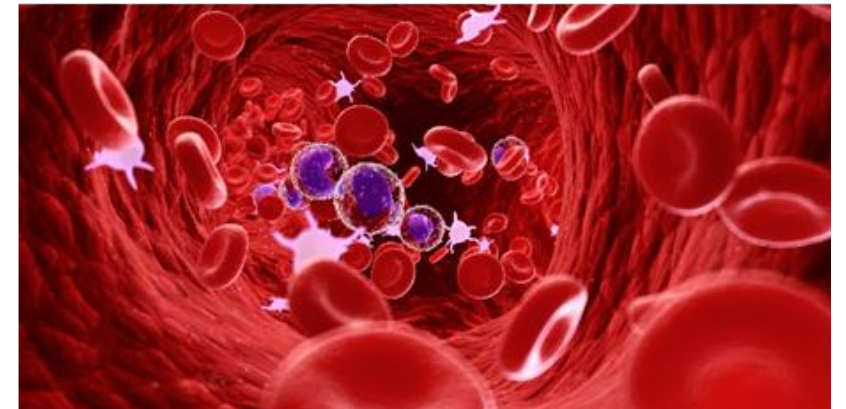
Oral & Mucosal Linings



Intestinal Lining



WBC, RBC, Platelets



Why is it important to tell your team about your side effects?

- Do not hesitate to contact your doctor or nurse in between chemotherapy visits if you are experiencing side effects or have questions
- Some side effects can be more serious than others
 - We can help manage these side effects
- Some side effects can lead to changes in your treatment dose and/or schedule



What are some signs of infection?

- Infection can be very dangerous!
 - Fever
 - Chills or shakes
 - Areas of redness or tenderness
 - Sore throat
 - Mouth sores
 - Redness, swelling, pain, drainage at your infusion site
 - Coughing up green or yellow mucus
 - Itching or burning in genital area
 - Burning or frequent urge to urinate
 - Change in mental state or confusion
 - Just not feeling well

• To Prevent Infection, Protect Yourself

- Wear a mask
- Stay away from people with symptoms of illness
- Wash your hands often!



Why is reporting my fever important?

- Fever is a common sign of infection
- Infections while on chemotherapy can be very serious
- Call the Cancer Center to report high fevers immediately
- Oral temperature above **100.4 °F/ 38°C**
 - Call the clinic during business hours 916-734-5959
 - Call the on-call physician after hours 916-734-2011
 - Go to local ER if unable to reach physician for direction
- Do **NOT** notify your doctor of fever via MyUCDavisHealth
- Do **NOT** take Tylenol until after a fever is reported to your doctor
- Take your temperature every 4 hours if not feeling well



When should I call the clinic?

- Signs of Infections
 - Temperature ≥ 100.4 ° F/38° C
 - Chills, shaking
 - Mouth sores and/or pain on swallowing
 - Redness or soreness at injection or IV site
- Signs of bleeding
 - Abnormal bleeding
 - New bruising or small purple or red spots
- Changes in breathing
 - Shortness of breath
 - Pain when taking a breath
- Pain
 - New, unusual, or uncontrolled pain
 - Severe constipation or diarrhea not improved within 24 hours
 - Any new rashes or lumps

What are common treatment side effects?

- Fatigue
- Nausea and/or vomiting
- Diarrhea or constipation
- Mouth sores
- Hair loss
- Skin/nail changes
- Bruising/bleeding
- “Chemo-Brain”
- Neuropathy
- Reproductive changes
- Emotional/social changes

Side effects vary with different types of chemotherapy and immunotherapy treatments. Discuss with your doctor or nurse what side effects are most common for YOUR treatment plan.

Why is fatigue the most common side effect?

- Causes of fatigue
 - Stress of a new diagnosis and preparation for treatment
 - Treatment itself or medication side effects
- How to cope with fatigue?
 - Good nutrition and hydration
 - Rest when needed
 - Get regular light to moderate exercise
 - Plan your day to save energy and delegate responsibilities
 - Tell your oncologist/RN about fatigue at next appointment



How is my nausea managed by medication?

- You may receive nausea medication in the infusion room before receiving your infusion treatment
- Pick up your home nausea medication sent to your pharmacy before your first scheduled infusion
- Take home anti-nausea medications as directed
- Call doctor or nurse if nausea is not controlled by prescribed medications



How do I try to prevent nausea and vomiting?

- Eat 5-6 small, frequent meals
 - Avoid sweet, fried, spicy & fatty foods
 - Eat toast, crackers & drink clear fluids
 - Try eating foods at room temperature
 - Avoid foods with strong odors
- Eat a light meal before treatments
 - Take your anti-nausea medication early.
 - Do not wait until feeling sick or throwing up!

Nausea can occur at any time, but usually starts within the first 3-4 days after chemo. Nausea and vomiting are not side effects of all treatments.



What causes nausea and vomiting?

- Taste & smell changes caused by some treatments
- Mouth & throat sores
- Nausea & Vomiting



- What you can do:
 - Try high-protein drinks/smoothies/shakes
 - Use plastic utensils to avoid a metallic taste
 - Set a schedule for meals and eat whether you feel hungry or not
- Try to make every bite count!
 - Talk with our Oncology Dietitians about ways to help with appetite changes
 - Talk with your doctor about medication to help increase appetite

What are some causes of diarrhea?

- Causes
 - Treatments can harm healthy cells that line your large & small bowel
 - Chemo can speed up the movement of food and fluid in your bowels



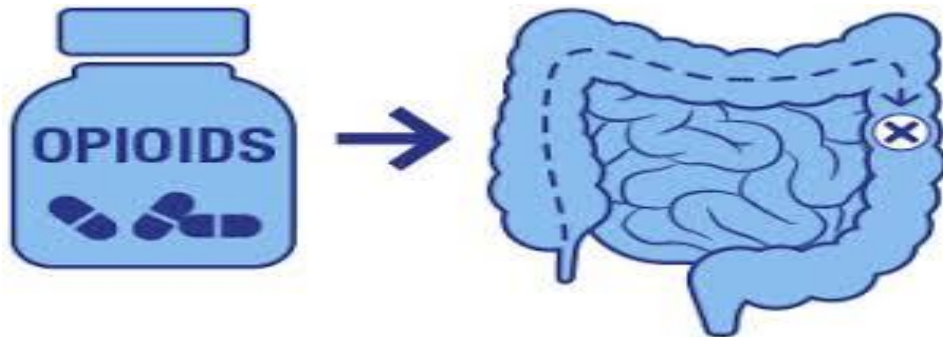
- What can you do?
 - Drink 8 to 12 cups of clear liquids daily
 - Eat small meals throughout the day
 - Try low-fiber foods (BRAT diet)
 - Avoid caffeine & alcohol
 - Room temperature liquids are easier on the stomach than hot or cold ones
 - Diarrhea is usually controlled with loperamide (Imodium®). Take as directed.

- If no improvement in 24 hours, call the clinic or the on-call physician

What can cause constipation?

- Causes

- Some treatment drugs, pain meds and nausea meds can slow down the intestinal tract
- This slowing can remove large amounts of moisture from the intestine, causing stools to become hard and difficult to pass



- Call the clinic if you no bowel movement in 2 days

- What can you do?

- DRINK at least 64 oz (8 cups) of decaffeinated, non-alcoholic liquids each day
- Include fruits & vegetables in your diet
- Ask your provider whether a fiber supplement might help
- Daily physical activity
- Start a bowel regimen with stool softeners or laxatives

What causes mouth sores/mucositis?

Several treatment medications can cause mouth sores.

- How to deal with mouth sores?
 - Good oral care
 - Avoid mouthwash with alcohol
 - Eat soft foods if pain is an issue
 - Avoid food/drink that cause irritation or scratches mouth
 - Avoid spicy, acidic, hot(temp), chips
 - Drink plenty of water
 - Avoid smoking and alcohol
 - Rinse with salt/baking soda mixture as often as possible
- What to discuss with your medical team:
 - Tell RN or MD if it is difficult to eat or drink
 - Tell RN or MD if you have white patches, sores in your mouth or a sore throat. These can be signs of infection.
 - Before having dental work, discuss it with your medical team
 - Tell dentist you are receiving treatment



What should I know about my hair during treatment?

- Only some treatment medications cause hair loss or thinning
- There may be total hair loss, thinning, your hair may become brittle, or you may have no hair loss
- Hair loss usually occurs 2-4 weeks after first treatment
- This can affect all body hair including eye lashes, nose hairs and pubic hair
- Some people choose to cut their hair short or shave their head before it starts to thin
- Protect your scalp from the cold and sun by using hats, scarves, wigs and sunscreen
- Your scalp may burn or itch prior to or while your hair falls out



What should I know about my hair after treatment?

- Hair slowly grows back after treatment is done
- It may come back a different texture or color
- Your scalp may itch and get bumps when the hair returns
- Use gentle shampoo and products during this time
- Moisturize your scalp to prepare your hair follicles for regrowth
- Try not to over-process your hair
- (ex. perms, straightening, extensions, weaves, tight braids, blow-outs, coloring)



What are some possible skin changes?

- Increased skin dryness, itchiness or rash
 - Use lotions to moisturize, moisturize and moisturize
 - No alcohol containing lotion
 - If also receiving radiation therapy, only use lotions approved by the radiation department for areas being treated
- Increased sensitivity to sun
 - Sunscreen, sunscreen and more sunscreen - SPF 30 or higher
 - Try moisturizer with sunscreen in it (for face)
 - Cover up! - Wear hats, long sleeves, long pants
 - Knit hats are provided at the UC Davis Comprehensive Cancer Center



What are some possible skin changes?

- Some skin changes may look like acneiform rashes
 - Likely to occur with different medications
 - Check your drug specific information for management
 - Not all rashes are treated the same
 - Notify your physician if you have a blister-like rash, or a rash that is painful
- Some drugs that may cause skin problems
 - Cetuximab (Erbix)
 - Sorafenib (Nexavar)
 - Erlotinib (Tarceva)
 - Monoclonal Antibodies
 - Lapatinib (Tykerb)
 - Sunitinib (Sutent)
 - Panitumumab (Vectibix)

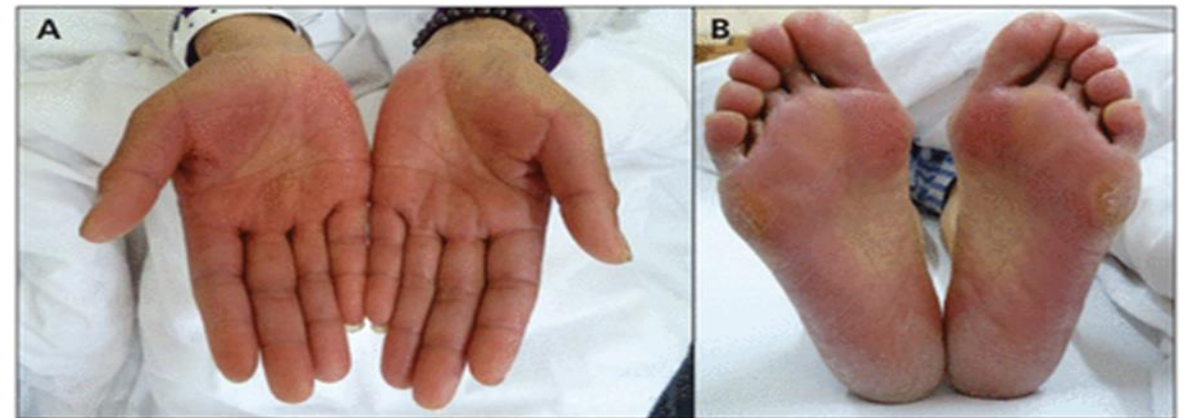
Why are my hands and feet red and sore?

- Hand & Foot Syndrome

- A common side effect of some treatments
 - Drugs that may cause it include: doxorubicin (Doxil), capecitabine (Xeloda), 5-FU (fluorouracil), cytarabine (ARA-C), Idarubicin
- Causes redness, swelling and/or pain on the palms of the hands or soles of the feet
- Blisters may appear
- Might occur on other areas of the skin like knees & elbows

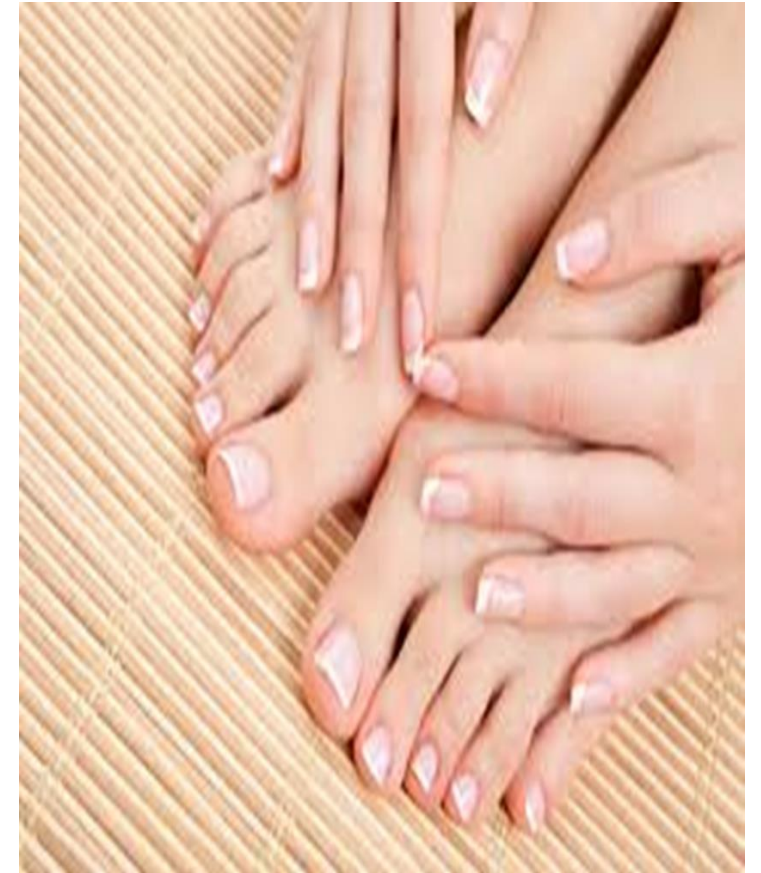
- What can you do?

- Let your physician know as soon as possible
- Protect your hands and feet:
 - Wear gloves when washing dishes
 - Keep feet and hands moisturized
 - Avoid soaking hands and feet in hot water



What nail changes can I expect?

- Fingernails can become discolored, weak and brittle during treatment
- What can I do?
 - Check your nails regularly
 - Keep fingernails and toenails trimmed
 - Avoid manicures, pedicures, or cutting your cuticles due to a risk of infection
 - Avoid using artificial nails



What are some symptoms of bruising & bleeding?

- Some treatments cause low platelets which can cause bleeding
 - Call the doctor for any unusual bleeding
 - Call doctor if you notice increased bruising or small red purple/red spots on your skin
- Ways to prevent bleeding:
 - Use a soft toothbrush
 - Blow your nose gently
 - Use the bowel routine recommended to prevent constipation
 - Talk to your oncologist about blood thinners and aspirin-based drugs



What is “Chemo Brain”?

- Described as:
 - Temporary memory loss or forgetfulness
 - Difficulty finding words
 - Mental fog
- Causes
 - Stress, depression, anxiety
 - Fatigue
 - Medications
 - Hormonal Changes

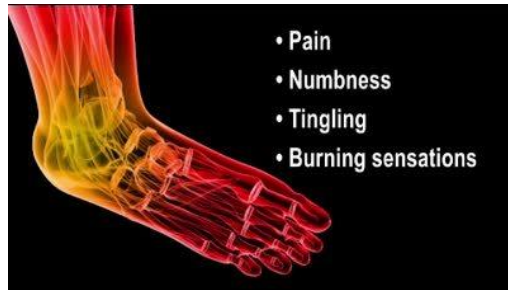


- What can I do?
 - Keep a planner
 - Make an ongoing list of questions for your doctor
 - Exercise your brain
 - Maintain good nutrition
 - Track memory problems
- Memory will improve once treatment is finished



What is Peripheral Neuropathy?

- Some treatments can affect nerve cells causing a burning, tingling, or numbness in your hands or feet or ringing in the ears.



- Usually not harmful but can be painful and uncomfortable



- What can I do?
 - Wear gloves, socks, shoes
 - Handle sharp objects carefully
 - Walk slowly & hold handrails when using stairs
 - Use a bathmat in the tub or shower
 - Move area rugs and cords out of your path
 - Tell doctor or nurse about pain, numbness or tingling in your extremities and if you are losing your balance
 - Medications may reduce symptoms from neuropathy, but may not relieve numbness

Can my treatment cause reproductive and sexual changes?

- Reproductive changes can be temporary or permanent
 - It is important to discuss side effects of your cancer treatment with your oncologist before starting chemotherapy
 - If you are planning a family or considering having children in the future discuss available options with your oncologist
- Avoid pregnancy during chemotherapy
 - Practice “safe” sex while on chemotherapy to protect your partner
 - Chemo can remain in secretions for 48-72 after treatment
 - Chemotherapy can cause hormonal changes
 - It is important to maintain healthy intimate relationships & positive body image



What do I need to know about my medications and/or supplements?

- Pain Management
 - Check with your oncology doctor before using aspirin or aspirin-based drugs for pain
 - Talk to your oncologist about pain relief options
 - Ibuprofen (Advil) may be okay to use occasionally
 - Referral to Pain Management specialist



- Taking medications while on treatment
 - Check with your pharmacist, oncologist, or nurse before starting any new medications
 - This includes vitamins, herbal supplements and cannabis products
 - Check with your oncology doctor if you take aspirin daily for heart or stroke prevention
- Keep you doctors updated of all the medications and supplements you are taking.



Is there other helpful information I should know?

- Medical Care
 - Your oncologist is responsible for your cancer treatment
 - Your family doctor (PCP/Internist) is responsible for all non-cancer related health problems



- Flu Vaccine
 - Flu vaccines are recommended for cancer patients and their families
 - Discuss timing of your vaccine with your oncologist and PCP
 - Vaccinations are offered October to February by your PCP or local public health clinic



How can I deal with the challenges of cancer treatment?

- To help feel your best before, during, and after your treatments, try these tips:
 - Eat a healthy meal before and after the treatment
 - Drink plenty of fluids & replenish lost electrolytes
 - Be mindful and avoid others that are not feeling well or may have an infection
 - Take daily walks or get moderate exercise if you can
 - Rest as needed
- Listen to your body and trust your instincts.
- We are here to help you and your family.



How can the Cancer Center help me get through cancer treatment?

- Supportive Oncology and Survivorship



Is there someone to help with all the stuff that accompanies cancer?

- The Supportive Oncology and Survivorship department can help!
 - A wide range of services are available to support our patients and families throughout their cancer experience
 - Providing comprehensive assessment and knowledgeable guidance
 - Addressing challenges and barriers to care
 - Helping people achieve the best possible quality of life throughout their journey
- Experts are available to help you in:
 - nutrition
 - patient navigation
 - behavioral health
 - case management
 - community resources
 - survivorship



What support services are available?

- Support for Adult Patients
 - Hematologic Patient Nurse Navigation
 - Nutrition
 - Psychiatry
 - Social Work
 - Survivorship Navigation
 - Support Groups
 - Wellness Learning Opportunities
 - Women's Cancer Care Program
- Support for Adolescents & Young Adults
 - Adolescent and Young Adult (AYA) Cancer Care Program
- Support for Every Patient
 - Financial Services Information
 - Online Patient & Family Learning Center
 - Stop Tobacco Program

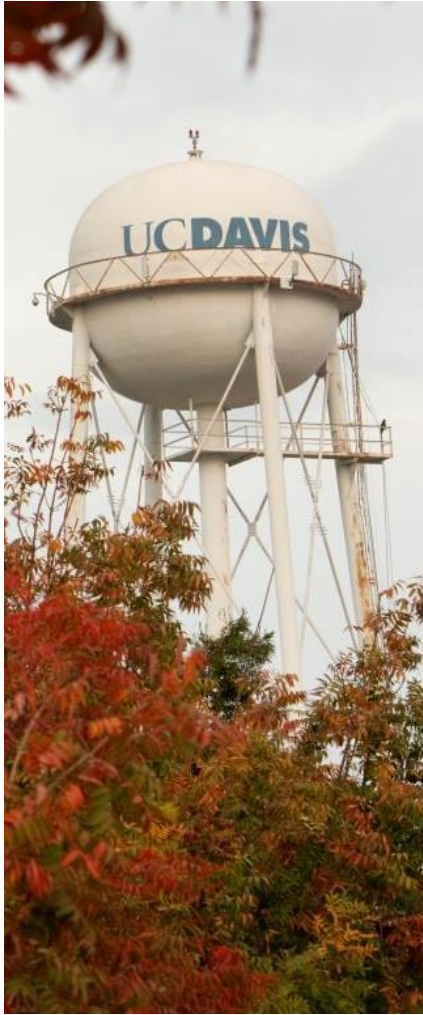


What is Supportive Medicine?

- Specialized medical care (palliative care) for people with serious illnesses.
 - Appropriate at any stage of cancer
 - Can be provided at the same time as your cancer treatment
 - Works together with your oncology team
 - Helps you better understand your medical condition and your choices
 - Will help you match your goals to your treatment options, giving you more control over your care

- Symptoms treated:
 - Pain or discomfort
 - Fatigue
 - Constipation
 - Nausea
 - Family stress
 - Anxiety, depression
 - Loss of appetite
 - Difficulty sleeping
 - Spiritual distress
 - Shortness of breath
- Team Members:
 - Social Worker
 - Dietitian
 - Chaplain
 - Physician
 - Registered Nurse





Thank you for attending!

**UC DAVIS
HEALTH**

**COMPREHENSIVE
CANCER CENTER**