



BARBARA ANN

CANCER INSTITUTE

Wayne State University

Receiving Chemotherapy

Karmanos Cancer Center

Patient/Community Education Department 01-2019

After this class you will know...

- How chemotherapy works
- What to expect during your infusion day appointment
- What are potential side effects
- How to take care of yourself during treatment
- When to call your doctor

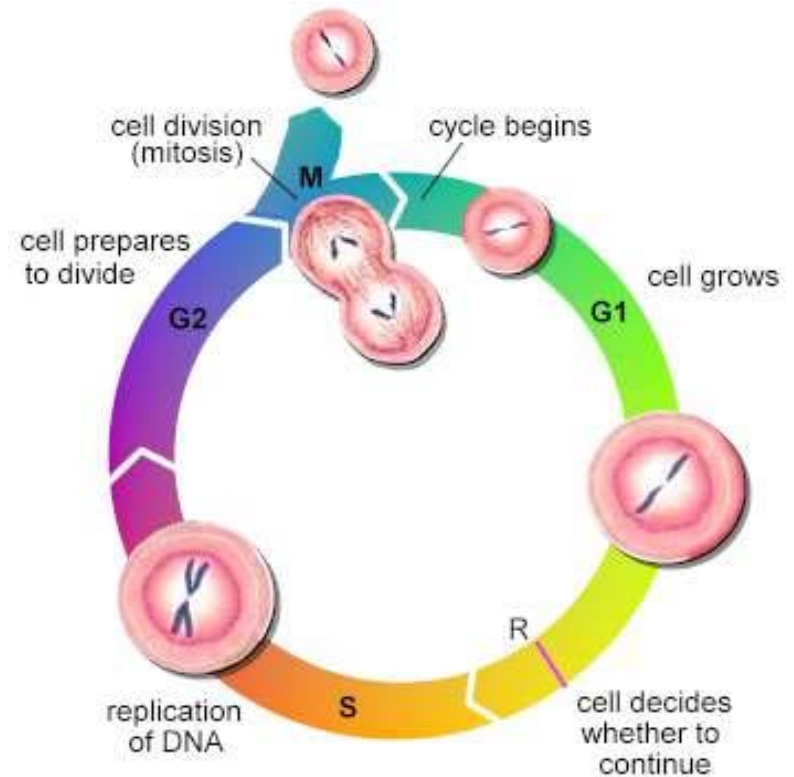
Why Chemotherapy?

- **What is chemotherapy?**
 - Medicines used to treat cancer
- **Why is it given?**
 - Cure
 - Control
 - Palliate (relieve symptoms)

How Chemotherapy Works

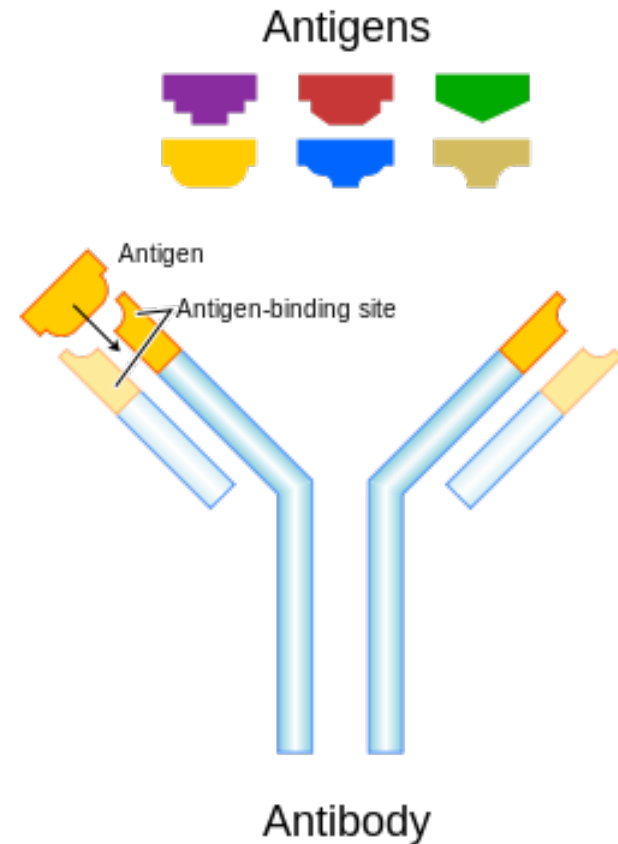
- Traditional chemotherapy stops cells from **growing and dividing** along the “Cell Cycle”.
- If a cell cannot divide it will die
- Chemotherapy does not know the difference between the cancer cells and the normal cells.
 - Potential side effects that might occur will be discussed later

The Cell Cycle



Monoclonal Antibodies

- Targeted therapy
- Attach to antigens on cancer cells that slow down the immune system
- Stimulates the immune system to attack those cells
- Side effects-Allergic reactions
 - Fever
 - Chills
 - Muscle aches
 - Rash



How is it given?

- Intravenous – into a vein
- Oral - as a pill
- As an injection or shot
- With direct contact to the cancer such as
 - Topical- on the skin
 - Intrathecal- into spinal fluid
 - Intra-cavity- such as bladder or abdomen



Central Venous Catheters

Central Venous Catheter

Implantable Port

PICC Line



Chemotherapy Treatment Day

What to Expect



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The Chemotherapy Process

- Your safety is our top priority
- Receiving chemotherapy takes times
- Your chemotherapy is mixed specifically for you ***on the day*** of your treatment
 - After you have seen the doctor and had your blood drawn.

Your Multidisciplinary Team



Chemotherapy day

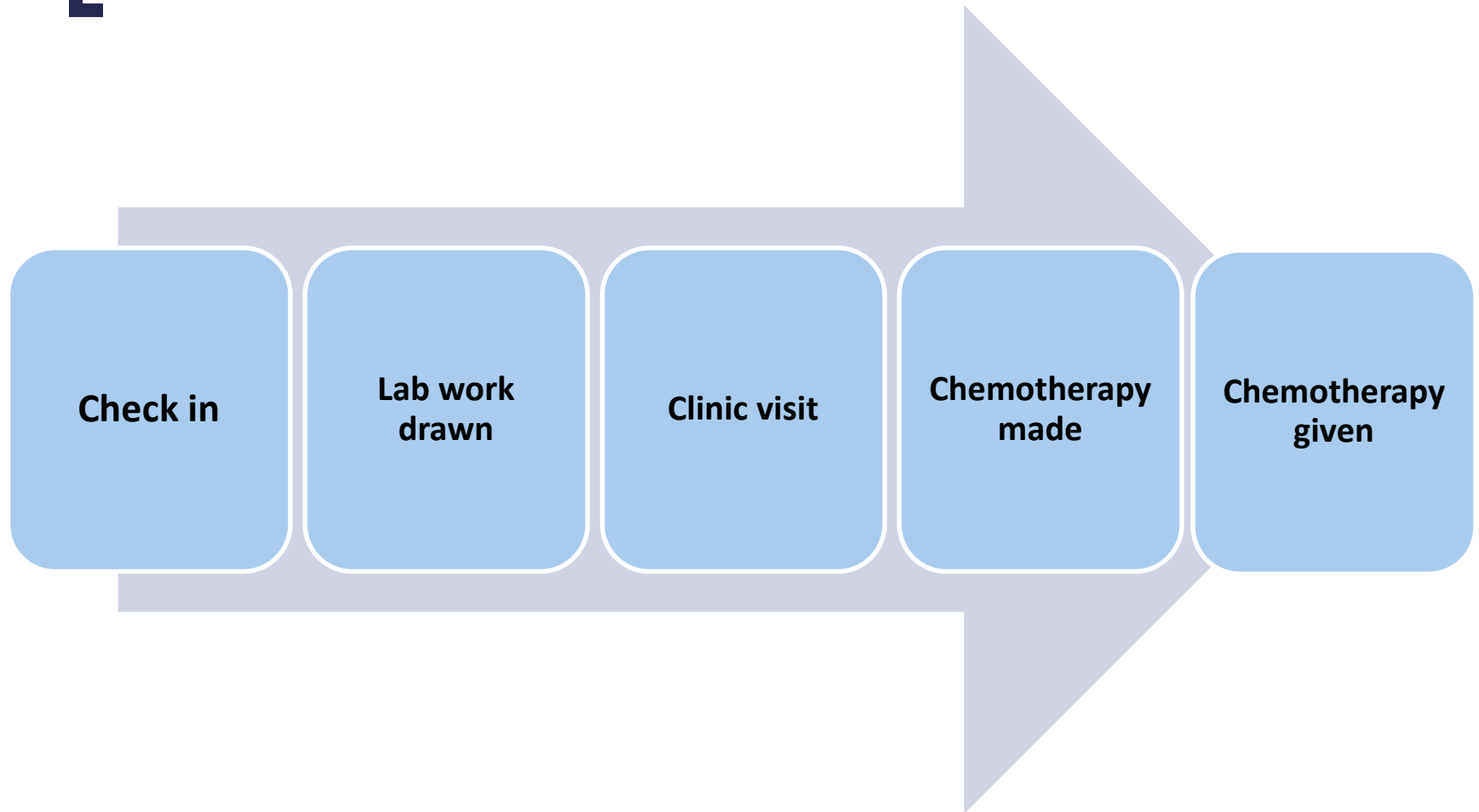
Eat breakfast & take your usual medications
(unless told differently)



Check in for your first appointment



What Happens on Chemotherapy Day

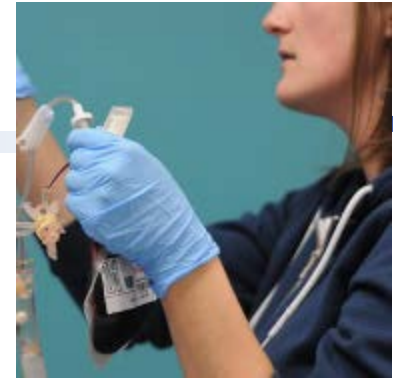


Infusion Center



- Patient Station
 - Reclining chair and privacy curtain OR
 - Private room with a bed
- One to two guests can stay with you
 - For safety - anyone entering the Infusion Center must be 14 years or older
- Dress comfortably and in layers
 - Temperatures may vary
 - Warm blankets are available if needed

Infusion Nurse



- Your infusion nurse will:
 - Start an IV and give you fluids
 - Tell you how long your infusion will take
 - Give you pre-medications
 - Give your chemotherapy
 - Monitor you for side effects
 - Teach you about your treatment

Tell the Nurse if you feel different in any way, right away!

During the infusion

- What can I do during treatment?
 - Relax
 - Play cards or games
 - Read
 - Listen to music
 - Watch a TV
 - Eat or drink
 - Make crafts

After your chemotherapy infusion

- For safety you will need someone to drive you home
- Update your ***Patient Calendar*** at the Schedulers desk



Side Effects

What to Expect



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Important to Remember

**No two people
respond exactly the same
to chemotherapy treatment**



Why do side effects occur?

- Chemotherapy affects rapid growing cells
 - Both ***cancer and normal cells*** can be affected
- Normal cells that are often affected include:
 - Hair
 - Mouth and throat
 - Esophagus, stomach and intestines
 - Skin and nails
 - Blood cells

Side Effects

- Your health care team will discuss potential side effects with you
- If you have them, tell your health care team
- They will:
 - Monitor you
 - Help manage them

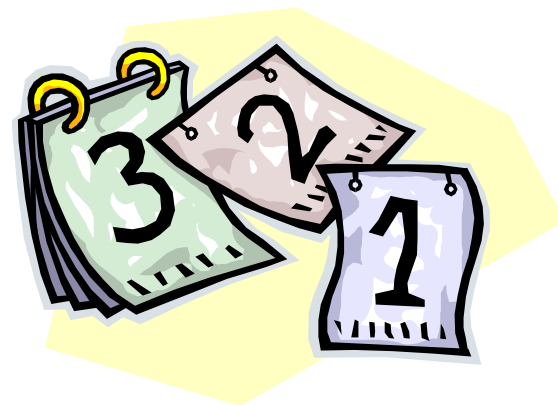


Prescriptions for side effects

- Medicines to prevent or control side effects may be prescribed
- Get your prescription filled right away
- Take medications as ordered
- Call your health care team if:
 - You can not get your prescription filled
 - Side effects are not controlled

When do side effects occur?

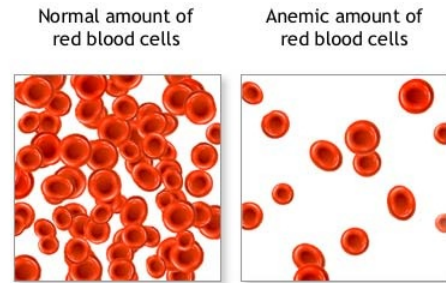
- 1- 3 days after chemotherapy
 - Common symptoms include:
 - Fatigue
 - Nausea and vomiting
 - Diarrhea
 - Constipation
 - Mouth sores



White blood cells

- 7 – 10 days blood cell counts may drop
- White blood cells fight infection
 - Low white blood cell count equal greater risk for infection
 - Protect yourself from infection
 - *Wash hands often*
 - *Stay away from people with colds*
 - Injections may be given to increase the white blood cell count

Red blood cells



ADAM.

- Red blood cells carry oxygen
 - Low red blood cells may result in anemia and you may feel *very tired*
 - Get plenty of rest
 - ***Call your doctor right away if you feel dizzy or short of breath.***
 - Injections or blood transfusions may be given to increase the red blood cells

Platelets



- Platelets help form blood clots to stop bleeding
 - Decreased platelets increase the risk for bruising and bleeding
 - Be careful, try not to cut or injure yourself
 - Use an ***electric razor*** and ***soft bristle tooth brushes***
 - If you cut yourself, clean cut right away, apply a bandage and pressure for at least 5 minutes
 - *If bleeding does not stop, call your doctor*
 - Transfusions may be given to increase platelets

Hair Loss

- All chemotherapies do not cause hair loss
- Usually occurs 3 weeks after the 1st treatment
- Hair loss is total body, not just head
 - Plan ahead, buy hats, wigs, scarves, etc to protect your scalp
 - Wear glasses to prevent debris blowing in your eyes



Vision changes



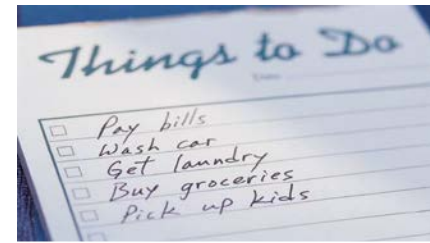
- Some medications can affect your vision
- Let your doctor or nurse know
- Often temporary
- Do not buy new glasses or contacts until treatment is complete

[Hearing changes]



- Some medications can affect your hearing
- Let your doctor or nurse know
- You may need to be checked by an ENT (Eyes, Ears, Nose and Throat) doctor

Concentration



- Poor memory or difficulty concentrating
 - Often called “chemo fog”
 - Often temporary
 - Write things down
 - Avoid difficult tasks

Let your doctor or nurse know

Other side effects - Peripheral Neuropathy

- Damage to the peripheral nerves caused by certain chemotherapy drugs i.e. **Cisplatin, Oxaliplatin, Paclitaxel, Etoposide.**
- **Symptoms:** numbness, tingling of hands and feet.
Loss of sensation to touch, difficulty picking things up
unusual feelings, unrelieved pain , constipation.

Notify your health care professional if you are experiencing any of the above symptoms.

Safety - Peripheral Neuropathy

- Things you can do to minimize effects:
 - Do not walk around without footwear
 - Avoid Extreme temperature changes
 - Use gloves when washing dishes, doing housework, gardening, etc.
 - Use potholders when cooking
 - Inspect skin for cuts, abrasions, burns

Oxaliplatin Self Care Tips

- Avoid cold temperature and cold objects.
- **Do not** drink cold drinks or use ice cubes
 - **Do not** use ice chips if you have nausea or a sore mouth.
 - Drink through a straw.
- Do not breathe deeply when exposed to cold air.
- Keep air conditioning on low in the car & at home.
- Wear warm clothing in cold weather. Cover mouth and nose.
- Wear gloves (cotton) to touch cold objects.
- Do not take things from the freezer or refrigerator without wearing gloves.

What do I do if side effects occur?

- Tell your health care team
They will work with you to monitor and manage your side effects
- Refer to suggestions in the ***Receiving Chemotherapy at Karmanos***/insert of your *Patient Portfolio*

When to Call Your Doctor

Call your doctor if you have...

■ Signs of infection

- Fever of 100.4 ° F or higher
- Shaking chills or sweating
- Flu-like symptoms (muscle aches or pain)
- A new cough or sore throat, or one that is getting worse
- Phlegm or mucous when you cough
- Abnormal vaginal discharge or itching
- A new rash
- Sores or white patches in or around the mouth or anywhere else
- Redness, drainage, swelling, tenderness or pain anywhere

Call your doctor if you have...

- **Nausea**

- Not relieved by medication for more than 24 hours

- **Vomiting**

- Unable to keep fluids or medications down

- **Diarrhea**

- Loose or liquid bowel movement for more than 24 hours

- **Constipation**

- No bowel movement or hard stools for 3 days

Call your doctor if you have...

- **Problems urinating**
 - Burning or pain
 - Cloudy urine
 - Change in color or odor
 - Decreased amount
- **Problems sleeping**
- **Fatigue (no energy after rest)**
- **Difficulty or pain with swallowing**

Call your doctor immediately

- **Dizziness**
- **Difficulty breathing**
- **Bleeding from anywhere**
 - Blood in your vomit, urine or stool (bowel movement)
- **Uncontrolled pain**
- **Sudden confusion**

Patient Portfolio

- Refer to the **Taking Care of Yourself** section in your Patient Portfolio.
 - How to contact your doctor or any other health care team member
 - Keep the business card of those involved in your care in your portfolio

1-800-KARMANOS (800-527-6266)



Taking Care of Yourself

Before, During and After Treatment

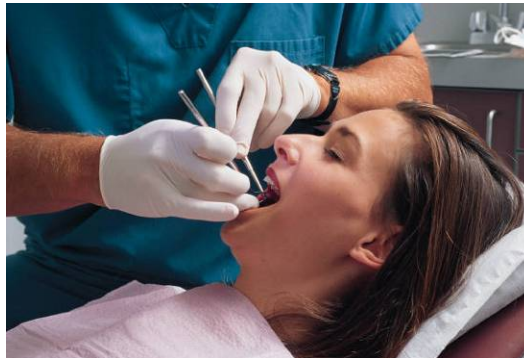


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Before Treatment

- Tell your health care team about all your medications - including over the counter drugs, vitamins and herbal medicines
- If possible, visit your dentist before your first treatment



48 hours after each treatment

Chemotherapy moves through your body



Broken down & eliminated in urine , stool, body secretions



Removed from body within 48 hours after treatment



If this takes longer, your nurse will let you know

During treatment



- Use disposable paper towels to clean up body fluid waste
- Wash soiled items in hot water
- Double flush the toilet with the lid shut
- Wash hands
- Wear barrier protection
- Avoid contact of body fluids with children or anyone who is pregnant or nursing

Medication

- Update list
- Carry it with you
- Let your doctor know if you start *any* new medication or treatments including:
 - Over the counter medications
 - Vitamins
 - Home remedies
 - Herbal products

Medication Log

Medication Log

Use the following log to list all of your medications including prescriptions and over-the-counter medications (Tylenol®, vitamins, supplements, aspirin, herbs and home remedies). Update the list as your prescriptions and medications change. Ask your nurse for additional Medication Logs as needed.

MEDICATION NAME <small>Purpose</small>	DOSE <small>Amount Taken</small>	HOW OFTEN TAKEN <small>Frequency & When</small>	SPECIAL INSTRUCTIONS <small>Start/Stop Dates</small>

2-4
Komenov Cancer Center's New Patient Portfolio—Patient and Family Education 6/2008

Hygiene

- Wash your hands often
 - This is the best way to fight infection
- Shower, bathe or sponge-bathe every day
- Moisturize your skin ***gently*** & often

Nail Care

■ Do not

- Cut your cuticles
- Wear false nails

■ Do

- Keep cuticles moist and pushed back
- Wear nail polish if you like
- Use **non-acetone** polish removers
- Have your own set of manicure/pedicure supplies



During Treatment



Mouth Care

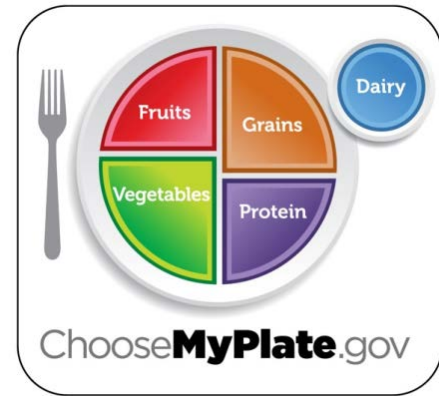
- Avoid routine dental cleanings
 - Talk with your oncologist before you see your dentist
- Brush your teeth with a **soft bristle toothbrush** at least 2 times a day
- Continue to floss if you already floss
 - If you do not floss, check with your doctor before starting to floss.
 - This may cause bleeding

Mouth Rinses

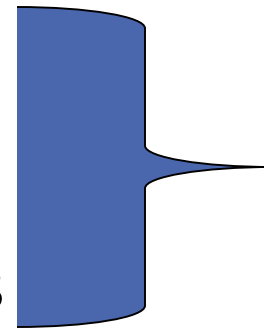


- To decrease bacteria in mouth
- Rinse mouth **3x day** with a baking soda and salt mixture
 - Do not use alcohol based mouthwash
 - Recipe
 - **1 cup warm water**
 - **½ - 1 teaspoon baking soda + ½ -1 teaspoon salt**
 - Mix
 - Swish in mouth for 15 – 30 seconds, then spit out

Eating



- Eat nutritiously as possible
- Eat smaller, more frequent meals
- Avoid spicy and greasy foods
- Avoid foods with strong odors
- Avoid extreme hot and cold foods

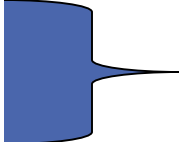


Day of
chemo

If needed, ask for referral to our dietitian

Drinking Fluids



- Drink 6 - 8 glasses of fluids a day - water, juice or other liquids
 - Keeps you hydrated
 - Improves the way your kidneys work
- Limit caffeine  Day of chemo

Ask your doctor about occasional alcohol use

Quit Smoking

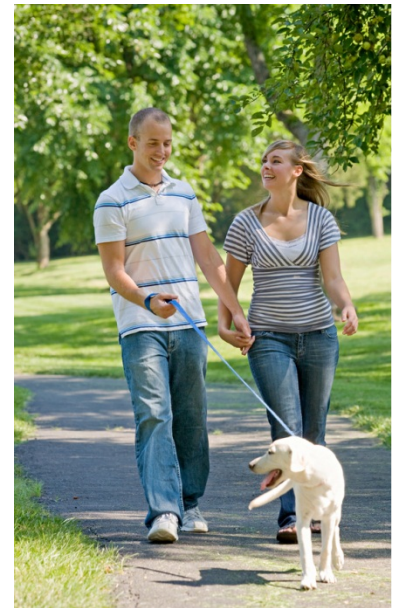


- Especially important during chemotherapy
 - Decrease effectiveness of many drugs
 - Increases chance of infection
 - Interferes with healing
 - Weakens immune system
- Increases chance of cancer recurring
- The Michigan Tobacco Telephone Quitline can help you quit, ask for a referral or call 1-800-Quit-Now

Stay Active

- If possible continue your usual activities (work, exercise and leisure)
- Regular light exercise (walking) is important
- Avoid strenuous activity

Check with doctor before traveling



Limit sun exposure



- Your skin may be more sensitive to sunlight
- Apply a **30 SPF** sunscreen to all exposed skin
 - Reapply every 2 hours when outdoors
- Wear sunglasses, a hat and other protective clothing when outdoors

Rest



- Rest when you need it
 - Take naps
 - Let us know if you are having trouble sleeping
- Ask for help if you need it
 - Friends & family

Ask for a referral to Karmanos Symptom Management Specialists

Use birth control

- Do not get pregnant
 - Cancer treatment can harm an unborn baby
- Cancer treatment can cause sterility in men and women
 - Talk with your doctor before starting treatment
 - Sperm banking or freezing eggs is sometimes possible
- Ask questions

Coping

- There is **no one** right way to cope with cancer!
- Many people who receive chemotherapy may have:
 - Feelings of sadness
 - Anxiety
 - Depression
 - Isolation

If you have these feelings, you are not alone, we are here to help!

We can help

- Individualized teaching and classes
- Support groups
- Social Work Services
- Symptom Management Services
- Referrals for supportive resources; such as hair loss & post-mastectomy needs
- Healing Arts including massage therapy, art, music and pet therapy
- Financial and transportation assistance

** Call 1-800-KARMANOS (527-6266) for more information.*

Summary

- Carry your Patient Portfolio
- Update your medication record
- Remember...There are ways to prevent and manage the side effects of chemotherapy
- Talk with your health care team
- Ask for help!
- Use our resources



Questions

Please ask questions and complete the education evaluation.

Thank you!