

# PATIENT & CAREGIVER EDUCATION Radiation Therapy to Your Brain

This information will help you get ready for radiation therapy to your brain, including what to expect before, during, and after your treatment. You'll also learn about side effects and how to care for yourself during your treatment.

We suggest you read through this at least once before you start radiation therapy, and then use it as a reference in the days leading up to your radiation treatments so that you can do all you can to prepare. Bring it with you for your simulation appointment and all future appointments with your radiation oncologist so you and your healthcare team can refer to it.

# About radiation therapy to your brain

Radiation therapy uses high-energy rays to treat cancer. It works by damaging the cancer cells and making it hard for them to reproduce. Your body then is naturally able to get rid of these damaged cancer cells. Radiation therapy also affects normal cells. However, your normal cells are able to repair themselves in a way that cancer cells can't.

Radiation can be given to treat primary tumors in your brain or tumors that have spread to your brain from another part of your body (metastasized). Your doctor will decide whether you'll receive partial or whole brain radiation. You'll have either external beam radiation therapy or stereotactic radiosurgery depending on your treatment plan.

During external beam radiation, a treatment machine will aim beams of radiation directly to the tumor. The beam passes through your body and destroys cancer cells in its path. You won't see or feel the radiation.

Stereotactic radiosurgery can be used in some tumors and is even more precise. It targets a small area in your brain with high doses of radiation and delivers lower doses of radiation to the normal tissue around it. You're able to receive higher doses to the tumor at each treatment session, which shortens the overall course of treatment.

Radiation therapy takes time to work. It takes days or weeks of treatment before cancer cells start to die, and they keep dying for weeks or months after radiation therapy.

#### Your role on your radiation therapy team

Your radiation therapy care team will work together to care for you. You're a part of that team, and your role includes:

- Getting to your appointments on time.
- Asking questions and talking about your concerns.
- Telling someone on your care team when you have symptoms related to your treatment.
- Telling someone on your care team if you're in pain.
- Caring for yourself at home by:
  - Quitting smoking if you smoke. MSK has specialists who can help you quit smoking. For more information about our Tobacco Treatment Program, call 212-610-0507.
  - Caring for your skin based on your care team's instructions
  - Drinking liquids based on your care team's instructions.
  - $\circ\,$  Eating the foods your care team suggests.
  - Staying around the same weight.

# Simulation

Before you begin your treatment, you'll have a treatment planning procedure called a simulation. This is done to make sure that:

- Your treatment site is mapped.
- You get the right dose of radiation.
- The amount of radiation that gets to your nearby tissues is as small as possible.

You'll have imaging scans during your simulation.

Your simulation will take 2 hours, but can be longer depending on the treatment your doctor has planned for you.

### Getting ready for your simulation

No special preparation is needed before your simulation. You can eat and drink as you normally would on the day of your procedure.

Depending on your treatment plan, you may need more detailed imaging, including magnetic resonance imaging (MRI) which will be used to help plan your treatment.

During your simulation, you'll be lying in one position for a long time. If you think you'll be uncomfortable lying still, you can take acetaminophen (Tylenol®) or your usual pain medication before your simulation. If you think you may get anxious during your procedure, speak with your doctor about whether medication may be helpful.

Wear comfortable clothes that are easy to take off because you may need to change into a hospital gown. Don't wear jewelry, powders, or lotions.

# Take devices off your skin

You may wear certain devices on your skin. Before your simulation or treatment, device makers recommend you take off your:

- Continuous glucose monitor (CGM)
- Insulin pump

If you use one of these, ask your radiation oncologist if you need to take it off. If you do, make sure to bring an extra device to put on after your simulation or treatment.

You may not be sure how to manage your glucose while your device is off. If so, before your appointment, talk with the healthcare provider who manages your diabetes care.

#### Day of your simulation What to expect

A member of your radiation therapy team will check you in. You'll be asked to state and spell your full name and birth date many times. This is for your safety and part of our standard identification process. Patients with the same or similar names may be having care on the same day as you.

You'll be greeted by your radiation therapist. They'll take a photograph of your face. This picture will be used to identify you throughout your treatment.

Your therapist will then explain the simulation to you. If you haven't already signed a consent form, your radiation oncologist will review everything with you, and ask for your signature.

#### **During your simulation**

For your simulation, you may need to get undressed and change into a gown. You should keep your shoes on. If you wear a head covering, such as a wig, turban, or cap, you may have to remove it. Your therapists will help you lie down on a table and make every effort to ensure your comfort and privacy.

Although the table will have a sheet on it, it's hard and has no cushion. If you haven't taken pain medication and

think you may need it, tell your therapists before your simulation begins. Also, the room is usually cool. If you feel uncomfortable at any time, let your therapists know.

Throughout your simulation, you'll feel the table move into different positions. The lights in the room will be turned on and off and you'll see red laser lights on each wall. Your therapists use these laser lights as a guide when they position you on the table. **Don't look directly into the red beam because it may damage your eyes.** 

Although your therapists will walk in and out of the room during your simulation, there will always be someone who can see and hear you. You'll hear your therapists speaking to each other as they work, and they'll explain to you what they're doing. Don't move once your simulation begins, because it may change your position. However, if you're uncomfortable or need help, tell your therapists.

To help pass the time, your therapists can play music for you.

#### Positioning

Your therapists will help you lie down on the table. You'll be lying on your back during your simulation and each treatment. To help you stay in the correct position, you'll wear a mask or chin strap. Your therapists will make this for you.

To make the mask, your therapist will place a warm, wet sheet of plastic mesh over your face while you're lying on the simulation table. They'll then shape it to fit around your head (see Figure 1). You won't have any trouble hearing or seeing while the mask is on.

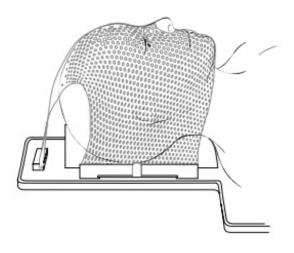


Figure 1. Mask for your radiation

Markings will be made on the mask. After the mask is made, your therapists will take several photographs of you in your simulation position. The photographs and markings will be used as guides to position you correctly for your treatments. This part of your simulation takes about 15 minutes.

Sometimes, a chin strap is made instead of a mask. It's a

piece of cloth that's placed under your chin to hold your head in place (see Figure 2). It will be secured to the table on which you're lying. Like the mask, it ensures that you're in the correct position during your simulation and treatments.

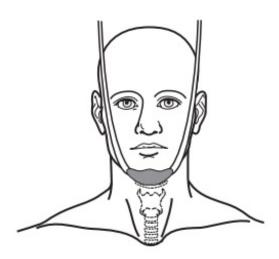


Figure 2. Chin strap for your radiation

If you're having stereotactic radiosurgery, a special mold will be made of your head and shoulders. Once it dries your therapist will make a mask by placing a warm sheet of mesh over your face that will have an opening (see Figure 3).

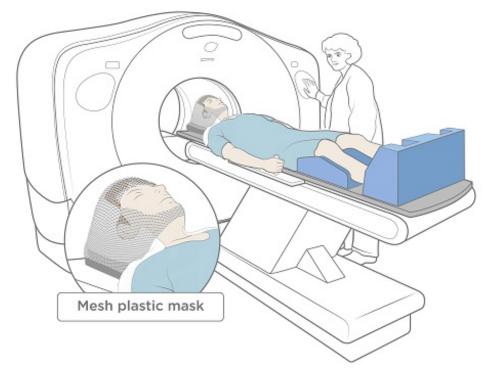


Figure 3. Computed Tomography (CT) scan with open face mesh mask

## Imaging

While you're lying in your position, you'll get scans of the area to be treated. These images will be done on an x-ray machine called a simulator or on a computed tomography (CT) scan machine (see Figure 3). These scans are used only to map your treatment. **They aren't used for diagnosis or to find tumors**. If you need other imaging, your nurse will explain this to you.

Occasionally, your nurse may start an intravenous (IV) line so that contrast (dye) can be given to you before your scan. The contrast helps us get clear images of the area to be treated. If you're allergic to contrast, please tell your doctor or nurse. It will take about 45 minutes to get your scan. During the scan, you'll hear the machine turn on and off. Even if the noise seems loud, your therapists will be able to hear you if you speak with them.

# After your simulation

At the end of your simulation, we will give you an appointment for your set-up procedure and treatment.

#### Scheduling your treatment

Radiation treatments may be given Monday through Friday. For some people, the treatment is given in just one day. For other people, the treatment is given over a number of weeks. Your schedule is based on what your doctor recommends.

Your treatment may be given in several different schedules. It can be:

- A single treatment, usually given on the same day as your set-up or beam films
- $\square$  3 to 5 treatments:
- Daily treatment, given Monday through Friday, for about \_\_\_\_\_ weeks.

You must come in every day that you're scheduled for

your treatment. Treatment may not be as effective if you skip or miss appointments. If for some reason you can't come in for treatment, you must call your radiation oncologist's office to let your team know. If you need to change your schedule for any reason, speak with your radiation therapist.

If you're receiving stereotactic radiosurgery, your radiation oncology team will tell you about the length of your appointment times and this will vary depending on how many sites are being treated.

#### **Treatment planning**

During the time between your simulation and start of treatment, your radiation oncologist will work with a team to plan your treatment. They'll use your simulation images to plan the angles and shapes of your radiation beams. The details are carefully planned and checked. This takes 1 to 10 days.

# Vitamins and dietary supplements during radiation therapy

It's OK to take a multivitamin during your radiation therapy. Do not take more than the recommended daily allowance (RDA) of any vitamin or mineral.

Do not take any other dietary supplements without talking with a member of your care team. Vitamins,

minerals, and herbal or botanical (plant-based) supplements are examples of dietary supplements.

# **Set-up procedure**

Before your first treatment, you'll be scheduled for a setup procedure. This procedure usually takes about 1 hour. If pain medication was helpful during simulation, you may want to take it before this procedure.

When you come for your set up procedure, you'll be shown to the dressing room and asked to change into a gown. Your therapists will bring you to the room where you'll receive your treatment each day. They'll position you on the table. You'll lie on your back exactly as you did during your simulation.

Special x-rays called beam films will be taken to make sure that your position and the area being treated are correct. The beam films will be repeated throughout your treatment. **They aren't used to see how your tumor responds to the treatment.** 

Depending on your treatment plan, you may start treatment on the same day as your set up procedure or on the next business day.

# **During your treatment**

After you check in at the reception desk, have a seat in the waiting room. When your radiation therapists are ready for you, they'll tell you to change into a gown. You should keep your shoes on during the treatment.

Your radiation therapists will bring you into the treatment room and help you lie on the table (see Figure 4). You'll be positioned exactly how you were lying during your set-up procedure.

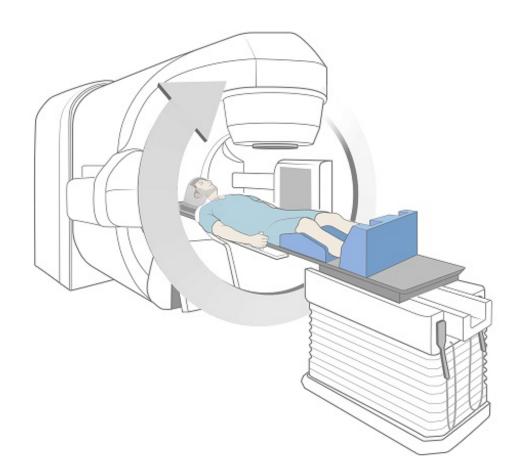


Figure 4. During your treatment

Once you're positioned correctly, your radiation

therapists will leave the room, close the door, and begin your treatment. You won't see or feel the radiation, but you may hear the machine as it moves around you and is turned on and off. You'll be in the treatment room for 15 to 90 minutes, depending on your treatment plan. Most of this time will be spent putting you in the correct position.

Although you'll be alone during the treatment, your radiation therapists will see you on a monitor and hear you through an intercom at all times. Your radiation therapists will make sure that you're comfortable during the treatment. Breathe normally during the treatment, but don't move. However, if you're uncomfortable or need help, speak to your radiation therapists. They can turn off the machine and come in to see you at any time, if necessary.

Neither you nor your clothes will become radioactive during or after treatment. It's safe for you to be around other people.

# Discharge instructions after stereotactic radiosurgery

If you're having stereotactic radiosurgery, you'll need to follow special instructions.

• You'll need to have a responsible care partner take

you home after your treatment. Don't drive for

• Your care partner will need to stay with you for the first 24 hours after your treatment.

• You can resume most of your activities the day after your treatment. Ask your doctor or nurse when you can resume vigorous exercise.

#### Scheduled visits during treatment

Your radiation oncologist and radiation nurse will see you for a scheduled visit during your treatment course to talk with you about any concerns, ask about any potential side effects you may be having, and answer your questions. This visit will be before or after your treatment on \_\_\_\_\_\_. You should plan on being at your appointment about 1 extra hour on this day.

If you need to speak with your radiation oncologist or radiation nurse any time between your visits, call your radiation oncologist's office or ask the support staff or your radiation therapists to contact them when you come in for treatment.

# Side effects

Some people may develop side effects from radiation therapy. Which side effects and how severe they are depend on many factors, such as the dose of radiation, the number of treatments, and your overall health. Side effects may be worse if you're also getting chemotherapy. Below are the most common side effects of radiation therapy to the brain. You may have all, some, or none of these.

#### Swelling in your brain

Radiation therapy to the brain may cause brain swelling. If you had neurological symptoms before you began radiation therapy, they could return, or you could have new symptoms. These symptoms may include:

- A worsening of your original symptoms.
- A headache that doesn't go away after taking acetaminophen (Tylenol®).
- Seizures.
- Nausea and vomiting.
- Changes in vision, such as double vision.
- Unsteadiness when walking.
- Change in mental status.

• Speech changes, such as mixing up words or having trouble finding words.

If you have any new or worsening symptoms, call your doctor or nurse right away. They'll want to evaluate you. Medication(s) can be prescribed if needed. These may include:

- Steroids, such as dexamethasone (Decadron<sup>®</sup>).
  Steroids reduce brain swelling from the tumor itself or from the effects of radiation therapy.
  - Take steroids only as directed by your doctor. You dose may be changed as needed during your treatment. When your doctor decides it's safe, you'll be given a schedule to gradually reduce the dose of the medication. Do not stop taking dexamethasone unless instructed by your doctor.
  - Steroids can cause stomach pain, so always take them with food. You may be given another medication to reduce the risk of stomach irritation.
  - Steroids can increase the risk of certain lung infections. You may be given an antibiotic called sulfamethoxazole and trimethoprim (Bactrim<sup>®</sup>) to reduce this risk.
  - Steroids may mask signs of infection, such as fever.

- Steroids can increase your blood sugar. If you have diabetes, please tell your radiation therapy team and the doctor who prescribes your medications for diabetes.
- Medications to control seizures, such as levetiracetam (Keppra®), phenytoin (Dilantin®), carbamazepine (Tegretol®), phenobarbital (Luminal®), or valproic acid (Depakene®).
  - If you're taking any of these antiseizure medications, you may need to have blood tests to make sure you're receiving the right dose.
  - Speak with your doctor about whether or not it's safe for you to drive while taking these medications.

#### Hair loss

Two to 3 weeks after your radiation therapy begins, you'll probably lose some of the hair on your scalp. Ask your doctor or nurse what to expect. Your hair will usually grow back 3 to 6 months after your treatment is completed.

The color and texture of your hair may be different after your radiation therapy. You can cover your scalp with a scarf, turban, wig, or toupee if it makes you feel more comfortable. If you want to wear a wig or hairpiece, try to get one before your hair falls out because it will be easier to match your hair color and style. Your health insurance may cover the cost of your wig or hairpiece. For your wig or hairpiece to be covered by insurance, your doctor must write a prescription with a diagnosis code indicating that your hair loss is due to treatment for cancer. Check with your insurance company to see if they cover the costs of wigs or hairpieces and how much they'll pay.

## Hair care

- Gently wash your hair with a mild shampoo when needed.
- Use a soft-bristle brush on your hair.
- Don't dye your hair or use hair products.

### Skin reactions

During radiation therapy, your skin and hair in the area being treated may change. This may include your forehead, ears, and back of your neck. This is normal. Ask your nurse to point out the areas of your skin and scalp that will be affected.

After 2 or 3 weeks, your skin may become pink or tanned. It may even become bright red or very dark

later on. It may also feel dry and itchy and look flaky. These symptoms will gradually decrease about 3 or 4 weeks after you finish your treatments.

You may also notice a rash, especially in any area where you have had previous sun exposure. Although this may be a side effect of treatment, a rash could also be a sign of infection. If you develop a rash at any time during your treatment, tell your doctor or nurse.

Below are guidelines to help you care for your skin during treatment. Follow these guidelines until your skin gets better. **These guidelines refer only to the skin in the area being treated with radiation therapy.** 

#### Keep your skin clean

- Bathe or shower daily using warm water and a mild unscented soap, such as Dove<sup>®</sup>, Basis<sup>®</sup>, or Cetaphil<sup>®</sup>. Rinse your skin well and pat it dry with a soft towel.
- When washing your hair, be gentle with your skin and scalp. Don't use a washcloth, a scrubbing cloth, or brush.
- Don't use alcohol or alcohol pads on your skin in the area being treated.

#### Moisturize your skin often

- Your nurse may suggest that you start using a moisturizer on the first day of your treatment. If you aren't likely to develop a skin reaction, you don't need to use a moisturizer unless your skin becomes dry or itchy. You can use over-the-counter moisturizers. When choosing a moisturizer pick one that doesn't have any fragrances or lanolin. There are a number of products that are good to use, and your nurse may suggest one of these to you. Use only one at a time unless your nurse tells you to use more.
- If you're using a moisturizer, apply it 2 times a day.

#### Avoid irritating your skin in the area being treated

- Don't wear tight caps or turbans that will rub against your skin.
- Use only the moisturizers, creams, or lotions that you have discussed with your doctor or nurse.
- Don't use makeup, perfumes, powders, or aftershave in the area being treated.
- Don't put tape on your treated skin.
- If your skin or scalp is itchy, don't scratch it. Apply moisturizer. Ask your nurse for recommendations on how to relieve the itching.

- Don't shave in the area that is being treated. If you must shave, use only an electric razor. Stop if your skin becomes irritated.
- Don't let your treated skin come into contact with extreme hot or cold temperatures. This includes hot tubs, water bottles, heating pads, and ice packs.
- If you have no skin reactions during your treatment, you can swim in a chlorinated pool. However, be sure to rinse off the chlorine right after getting out of the pool.
- Avoid tanning or burning your skin during treatment and for the rest of your life. If you're going to be in the sun, use a PABA-free sunblock with an SPF of 30 or higher. Also, wear loose-fitting clothing that covers you as much as possible.

#### Fatigue

Fatigue is a feeling of being tired or weak, not wanting to do things, not being able to concentrate, or feeling slowed down. You may develop fatigue after 2 to 3 weeks of treatment, and it can range from mild to severe. Fatigue may last 6 weeks to 12 months after your treatment ends.

There are a lot of reasons why you may develop fatigue during treatment, including:

- The effects of radiation on your body.
- Traveling to and from treatment.
- Not having enough restful sleep at night.
- Not eating enough protein and calories.
- Having pain or other symptoms.
- Feeling anxious or depressed.
- Certain medications.

You may find that your fatigue is worse at certain times of the day. Below are suggestions to help you manage your fatigue.

#### Ways to manage fatigue

- If you're working and are feeling well, continue to do so. However, working less may help increase your energy.
- Plan your daily activities. Pick those things that are necessary and most important to you and do them when you have the most energy. For example, you may go to work but not do housework, or watch your children's sports event but not go out to dinner.
- Plan time to rest or take short naps (10 to 15 minutes) during the day, especially when you feel more tired. If you do nap, try to sleep for less than 1 hour at a time.

- Try to sleep at least 8 hours every night. This may be more sleep than you needed before you started radiation therapy. You may also find it helpful to go to sleep earlier at night and get up later in the morning. One way to sleep better at night is to be active during the day. For example, if you're able to exercise, you could go for a walk, do yoga, or ride a bike. Another way to sleep better at night is to relax before going to bed. You might read a book, work on a jigsaw puzzle, listen to music, or do calming hobbies.
- Ask family and friends to help you with things like shopping, cooking, and cleaning. Check with your insurance company to see if they cover home care services.
- Some people have more energy when they exercise. Ask your doctor if you can do light exercise, such as walking, stretching, or yoga.
- Eat foods that are high in protein and calories. Ask your nurse for the resource *Eating Well During Your Cancer Treatment*

(www.mskcc.org/pe/eating\_cancer\_treatment).

• Other symptoms, such as pain, nausea, diarrhea, difficulty sleeping, or feeling depressed or anxious, can increase your fatigue. Ask your doctor or nurse for help with any other symptoms you may have.

## Sexual health

You might have concerns about how cancer and your treatment can affect your sexuality. You aren't radioactive. You can't pass radiation to anyone else, so it's safe to be in close contact with other people.

You can be sexually active during radiation treatment, unless your radiation oncologist gives you other instructions. However, if you or your partner are able to have children, you must use birth control (contraception) to prevent pregnancy during your treatment.

The American Cancer Society has resources about sexual health issues during cancer treatment called *Sex and the Adult Male with Cancer* and *Sex and the Adult Female with Cancer*. You can search for them at www.cancer.org or call 800-227-2345 for a copy.

MSK also has sexual health programs to help you address the impact of your disease and treatment on your sexual health. You can meet with a specialist before, during, or after your treatment.

• Female Sexual Medicine & Women's Health Program: For more information or to make an appointment, call 646-888-5076.  Male Sexual & Reproductive Medicine Program: For more information or to make an appointment, call 646-888-6024.

#### **Emotional health**

Cancer diagnosis and treatment can be very stressful and overwhelming. You may feel:

- Anxious or nervous
- DepressedHelpless
- Numb

- Afraid
- Frustrated
- Uncertain

• Worried

- Alone
- Angry

You might also worry about telling your employer you have cancer or about paying your medical bills. You may worry about how your family relationships may change, or that the cancer will come back. You may worry about how cancer treatment will affect your body, or if you will still be sexually attractive.

It's normal and OK to worry about all these things. All these kinds of feelings are normal when you or someone you love has a serious illness. We're here to support you.

#### Ways to cope with your feelings

**Talk with others.** When people try to protect each other by hiding their feelings, they can feel very alone. Talking can help the people around you know what you're thinking. It might help to talk about your feelings with someone you trust. For example, you can talk with your spouse or partner, close friend, or family member. You can also talk with a chaplain (spiritual advisor), nurse, social worker, or psychologist.

Join a support group. Meeting other people with cancer will give you a chance to talk about your feelings and learn from others. You can learn how other people cope with their cancer and treatment and be reminded you are not alone.

We know that all cancer diagnoses and people with cancer are not the same. We offer support groups for people who share similar diagnoses or identities. For example, you can join a support group for people with breast cancer or for LGBTQ+ people with cancer. To learn about MSK's support groups, visit www.msk.org/vp. You can also talk with your radiation oncologist, nurse, or social worker.

**Try relaxation and meditation.** These kinds of activities can help you feel relaxed and calm. You might

try thinking of yourself in a favorite place. While you do, breathe slowly. Pay attention to each breath or listen to soothing music or sounds. For some people, praying is another way of meditation. Visit

www.msk.org/meditations to find guided meditations lead by our Integrative Medicine providers.

**Exercise.** Many people find that light movement, such as walking, biking, yoga, or water aerobics, helps them feel better. Talk with your healthcare provider about types of exercise you can do.

We all have our own way of dealing with difficult situations. Often, we use whatever has worked for us in the past. But sometimes this is not enough. We encourage you to talk with your doctor, nurse, or social worker about your concerns.

# After your treatment

Please be sure to keep your follow-up appointments with your radiation oncologist. He or she will evaluate your response to treatment. You may have blood tests, x-rays, and scans during these visits. Before coming, write down your questions and concerns. Bring this and a list of all your medications with you. You can also call your doctor or nurse at any time after your treatment is completed, or in between follow-up visits, if you have any questions or concerns.

# **Contact information**

If you have questions or concerns, talk with a member of your radiation therapy team. You can reach them Monday through Friday from 9 a.m. to 5 p.m. at these numbers.

Radiation oncologist:	
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Phone number:

Radiation nurse:	
Phone number:	

After 5 p.m., during the weekend, and on holidays, call 212-639-2000. Ask for the radiation oncologist on call.

### Resources

#### **MSK support services**

#### **Counseling Center**

www.msk.org/counseling

646-888-0200

Many people find that counseling helps them. Our counseling center offers counseling for individuals, couples, families, and groups. We can also prescribe medications to help if you feel anxious or depressed. To make an appointment, ask your healthcare provider for a referral or call the number above.

# Female Sexual Medicine & Women's Health Program

646-888-5076

Cancer and cancer treatments can affect your sexual health, fertility, or both. Our Female Sexual Medicine & Women's Health Program can help with sexual health problems, such as premature menopause or fertility issues. We can help before, during, or after your treatment. Call for more information or to make an appointment.

#### **Integrative Medicine Service**

#### www.msk.org/integrativemedicine

Our Integrative Medicine Service offers many services to complement (go along with) traditional medical care, including music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy. To schedule an appointment for these services, call 646-449-1010.

You can also schedule a consultation with a healthcare provider in the Integrative Medicine Service. They will work with you to come up with a plan for creating a healthy lifestyle and managing side effects. To make an appointment, call 646-608-8550.

#### Male Sexual and Reproductive Medicine Program 646-888-6024

Cancer and cancer treatments can affect your sexual health, fertility, or both. Our Male Sexual and Reproductive Medicine Program can help with sexual health problems, such as erectile dysfunction (ED). We can help before, during, or after your treatment. Call for more information or to make an appointment.

#### **Nutrition Services**

## www.msk.org/nutrition

212-639-7312

Our Nutrition Service offers nutritional counseling with one of our clinical dietitian-nutritionists. Your clinical dietitian-nutritionist will talk with you about your eating habits. They can also give advice on what to eat during and after treatment. To make an appointment, ask a member of your care team for a referral or call the number above.

# **Resources for Life After Cancer (RLAC) Program** 646-888-8106

At MSK, care does not end after your treatment. The RLAC Program is for patients and their families who

have finished treatment.

This program has many services. We offer seminars, workshops, support groups, and counseling on life after treatment. We can also help with insurance and employment issues.

#### **Tobacco Treatment Program**

www.msk.org/tobacco

212-610-0507

MSK has specialists who can help you quit smoking. For more information about our Tobacco Treatment Program, call 212-610-0507. You can also ask your nurse about the program.

#### **External resources** American Cancer Society (ACS)

www.cancer.org

800-ACS-2345 (800-227-2345)

Offers a variety of information and services, including Hope Lodge, a free place for patients and caregivers to stay during cancer treatment.

## American Society for Therapeutic Radiology and Oncology

#### www.rtanswers.org

800-962-7876 A group of radiation oncology professionals that specializes in treating patients with radiation therapy. Provides detailed information on treating cancer with radiation and contact information for radiation oncologists in your area.

#### Cancer*Care*

#### www.cancercare.org

800-813-HOPE (800-813-4673) 275 7<sup>th</sup> Ave. (between West 25<sup>th</sup> & 26<sup>th</sup> streets) New York, NY 10001

Provides counseling, support groups, educational workshops, publications, and financial assistance.

#### **Cancer Support Community**

#### www.cancersupportcommunity.org

Provides support and education to people affected by cancer.

## National Cancer Institute (NCI) Cancer Information Service

#### www.cancer.gov

#### 800-4-CANCER (800-422-6237)

Provides education and support to people with cancer and their families. Publications are available online and in print.

# Questions to ask your radiation oncologist

Before your appointment, it's helpful to write down questions you want to ask. Examples are listed below. Write down the answers during your appointment so you can review them later.

What kind of radiation therapy will I get?

How many radiation treatments will I get?

What side effects should I expect during my radiation therapy?

Will these side effects go away after I finish my radiation therapy?

What kind of late side effects should I expect after my radiation therapy?

Radiation Therapy to Your Brain

# For more resources, visit www.mskcc.org/pe to search our virtual library.

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