PATIENT & CAREGIVER EDUCATION

Hair Loss and Your Cancer Treatment

This information will help you understand hair loss during cancer treatment. It also describes products, medicines, and procedures to help with hair loss.

About hair loss and your cancer treatment

Many people with cancer lose their hair because of chemotherapy (chemo), immunotherapy, endocrine therapy, or radiation to the head. There are also other causes of hair loss, such as:

- A family history of hair loss
- Being low in certain vitamins
- Hormonal changes
- Some health conditions, such as hypothyroidism (HY-poh-THY-roy-dih-zum). This is when your thyroid gland does not make enough hormones.
- Some hairstyles
- Some medicines
- Stress

If you're starting to lose your hair, it's important to see your dermatologist (skin doctor). They can help you figure out the reason for your hair loss. They can also answer any questions you may have about your hair.

Your dermatologist will ask about your history of hair loss. They'll also look at the areas where you're losing your hair.

Common questions

Why will I lose my hair during cancer treatment?

Cancer treatments, such as radiation and chemo, attack cancer cells that grow fast. These treatments can also harm normal cells that grow fast, such as hair cells.

Chemo can cause hair loss on your scalp, pubic area, arms, legs, eyebrows, and eyelashes.

Radiation therapy to your head often causes hair loss on your scalp. Sometimes, your hair may not grow back the same as it looked before. Or, it may not grow back at all. This depends on the dose (amount) of radiation to your head.

When will I start to lose my hair?

You may start to see your hair thin or fall out:

- 1 to 4 weeks after your first chemo treatment.
- 4 weeks after you had radiation therapy.

The amount of hair that falls out or thins depends on the type, dose, and timing of your treatments. How fast it falls out is not the same for everyone.

You may first notice hair on your pillow in the morning. Or, you may see it when you shower or brush your hair. Most hair loss often happens 3 to 6 weeks after your chemo treatment starts.

Some people will have hair thinning instead of hair loss. Hair thinning is when your hair feels and looks thinner in texture. Talk with your care team about what to expect after your chemo or radiation therapy.

When will my hair grow back?

It should start to grow back once your treatments end. Hair regrowth can take 3 to 5 months. When your hair grows back, it may not have the same texture or color. In rare cases, your hair will not grow back as full as it was before.

There's a very small chance that your hair will not grow back after radiation therapy to your head.

Caring for your hair and head

Here are some ways you can care for your hair and head while you're having hair loss:

- Wash and condition your hair every 2 to 4 days. Use baby shampoo or other mild shampoo (such as Aveeno® or Vanicream™). You should also use a cream rinse or hair conditioner.
- Use shampoos and conditioners that have sunscreen to prevent sun damage to your scalp.
- Always rinse your hair well and pat it dry with a soft towel.
- Wash your hair after swimming in a pool.
- Do not expose your scalp to the sun.
- Keep your head covered in the summer.
- In the winter, cover your head with a hat, scarf, turban, or wig to keep it warm. This can also help to catch falling hair. Whatever you choose to wear should fit just right. It should not be too tight or too loose, because that can cause friction (rubbing).
- Sleep on a satin or silk pillowcase. These are smoother than other fabrics and can reduce hair tangles.
- Brush or comb your hair gently with a soft-bristle brush or comb. Start brushing or combing your hair at the ends and gently work your way

up to your scalp. You can also comb through your hair with your fingers. Wet your fingers with water first.

- If your hair is long, you may want to cut it short before you start treatment.
- Tell your hairdresser you're getting chemo. They may be able to recommend gentle hair products.

During treatment, limit use of things that can be too harsh or pull on your hair, such as:

- Hair spray, hair dye, bleach, or permanents (perms).
- Clips, barrettes, bobby pins, ponytail holders, or hair ties (scrunchies).
  - Do not put your hair in braids, cornrows, or ponytails.
- Hair dryers, curlers, curling irons, or hair straighteners.
- Rubber bathing or swimming caps.
- Tight hats or other head coverings.
- Headphones or other devices with tight headbands.

Scalp cooling

Scalp cooling is a way to reduce hair loss while you're getting chemo to treat solid tumors. Solid tumors are cancers that are not leukemia or lymphoma. Scalp cooling involves wearing a cold cap on your head before, during, and after getting chemo.

There are 2 ways to cool your scalp:

- **The Paxman Scalp Cooling System:** This system works by attaching a cooling cap to a cooling machine. The machine pushes cold liquid through the cap while you're wearing it. The machine adjusts the cap's temperature so it stays cool while you're using it.
- **The Penguin™ cap:** This is a gel-filled cooling cap that you freeze

ahead of time and bring to your chemo treatment. The cap is not attached to a cooling machine and will not stay cool while you're using it. You'll need to bring a few frozen caps, so you can change them as they get warm.

There is a cost to use scalp cooling. The cost depends on the type of scalp cooling system you use and the number of treatments you need.

Talk with your healthcare provider to see if scalp cooling is the right option for you. To learn more, read *Managing Hair Loss with Scalp Cooling During Chemotherapy for Solid Tumors* (www.mskcc.org/pe/scalp_cooling).

Wigs, hairpieces, and head coverings

Wigs

Wigs are a great option that can help you feel more comfortable and confident during your cancer treatment. They come in many styles, colors, and materials, so you can find one that's right for you.

If you want to wear a wig, try to get one before you start to lose hair. This will make it easier to find a wig that matches your hair color and hairstyle.

If you already have hair loss, bring a photo of your usual hairstyle. Bring a lock of your hair too, if you can. This will help you find a wig that looks like your hair before treatment.

A wig should fit well, be comfortable, and easy to care for. You may want to start wearing your wig as soon as your hair starts to thin. As your hair gets thinner, you may need to have your wig adjusted to make it fit better.

Full wigs provide full coverage of your hair and scalp. They can be styled how you want. There are many types of full wigs. Here's a list of the most

common types:

Custom-made wigs

These wigs are made by hand and often cost the most to buy. They're made using your own head measurements, which can give you a more natural look. You may have to visit the wig store a few times to get your wig colored, cut, and cleaned. Custom-made wigs are often made of human hair but can be made of synthetic (not human) materials.

Customized ready-made wigs

These wigs can be made of human hair, synthetic blends, or a mix of both. They're made in standard sizes but can be adjusted to fit your head. They can be styled and often cost less than a custom-made wig.

Ready-made or stock wigs

These wigs are often made from a stretchy material and come in one size fits all. Most people can take a ready-made wig home the same day they buy it. Ready-made wigs often cost less to buy than other types of wig.

To learn more about where to buy wigs, read *Where To Buy Wigs and Hairpieces* (www.mskcc.org/pe/wigs-hairpieces).

Hairpieces and half wigs

Some people may lose hair in only 1 area. This is called partial hair loss, and you may not need a full wig. You may want to buy a hairpiece or half wig instead. A hairpiece or half wig can add volume or length, and blends into your own hair. It can be made in any size, color, or shape.

To learn more about where to buy hairpieces and half wigs, read *Where To Buy Wigs and Hairpieces* (www.mskcc.org/pe/wigs-hairpieces).

Head coverings

Head coverings are an easy and affordable way to help hold hair that's falling out. They can also hide a bald scalp. There are many kinds of head coverings, such as scarves, turbans, and hats.

The choice of which head covering to use and when to use it is up to you. Some people feel comfortable wearing a head covering every day, while others may wear one less often.

You can wear a head covering alone or with a wig. You can also wear a head covering while using hair camouflage (kam-uh-flaazh) products, such as camouflaging hair powder.

Here's a list of the most common types of head coverings:

Scarves

Scarves come in lots of colors, fabrics, and styles. They can be tied in different ways to create many looks and can add variety to your outfits.

Scarves made from silk can easily slide off your head. You may want to buy a cotton-blend scarf. This type can be more comfortable. There's less of a chance they untie or slip off your head.

Turbans

Turbans are sold in drug stores and come in many colors and textures. Some people like to wear terry cloth turbans because they're soft and comfortable.

Hats, caps, and beanies

Hats, caps, and beanies come in lots of colors, fabrics, and styles. You can wear these kinds of head coverings with casual and more formal outfits. You can also wear these kinds of head coverings with or without scarves, too.

Beanies are comfortable and warm. They're great for colder weather

and can be worn inside or outside.

When choosing a hat, cap, or beanie, look for ones that have a soft lining. This will help prevent scalp irritation.

Hair camouflage products

Hair camouflage products can help cover bald spots and thinning areas of your hair. They can be used alone or with other hair camouflage products. Some people use hair camouflage products every day, while others may use them on special occasions.

You can use hair camouflage products with any amount of hair loss. People with more hair loss can use camouflage to cover their whole scalp. Those with bald spots or small spots of thinning can use camouflage to cover only those areas.

When using a hair camouflage product, choose a color that matches the color of your hair roots. You may need to use more than 1 product to get the right color and look that you want.

You can buy hair camouflage products online from beauty supply websites or online retailers, such as Amazon and Walmart.

Here's a list of the most common types of hair camouflage products:

Hair fibers

These are keratin-based fibers that cling (stick) to your existing hair, making it look thicker and fuller. Keratin is a kind of protein that helps form your hair, skin, and nails. Hair fiber products come in many shades to match your hair color. Hair fibers are waterproof and will wash out with your next shampoo. An example of a hair fiber product is Toppik™ Hair Building Fibers.

Hair powders or powder cakes

These are powders that coat your scalp and hair. They add volume to your hair roots, making your hair look fuller. You can put the powder on with a damp sponge before styling your hair. Hair powders are waterproof and will wash out with your next shampoo. An example of a hair powder product is Bumble and bumble™ Hair Powder.

Hair crayons

These are dry fiber crayons that cover your roots and fill in bald spots or small spots of thinning. You can use the crayon on dry hair after you have styled it. Hair crayons are waterproof and will wash out with your next shampoo. An example of a hair crayon product is Bumble and bumble Color Stick.

Camouflage sprays

These are sprays that fill in bald spots or thinning areas, making your hair look thicker and fuller. Sprays are waterproof and will wash out with your next shampoo. An example of a camouflage spray product is Toppik Colored Hair Thickener Spray.

Camouflage lotions and creams

These are lotions and creams that cover up bald spots and thinning areas, making your hair look thicker and fuller. Camouflage lotions and creams come in many colors. They are waterproof and will wash out with your next shampoo. An example of a camouflage lotion or cream product is PROCOVR™ Hair Loss Concealer Cream.

Here's a table that lists hair camouflage products:

Product type	Product name	Available colors	Where to buy

Hair fibers *Clings to existing hairs, making hair look thicker*	Boldify™ Hair Thickening Fibers	• Auburn • Black • Blonde (Golden blonde, Blonde) • Brown (Dark brown, Medium brown, Light brown) • Gray (Dark gray, Gray) • Salt and pepper • White	• Amazon • Walmart • www.getboldify.com
	Caboki® Hair Loss Concealer	• Auburn • Black • Blonde (Golden blonde, Blonde) • Brown (Dark brown, Medium brown, Light brown) • Gray (Dark gray, Gray) • Salt and pepper • White	• Amazon • Walmart • www.caboki.com

	Febron® Hair Building Fibers	• Auburn • Black • Blonde (Medium blonde, Light blonde) • Brown (Dark brown, Medium brown, Light brown, Light cool brown) • Gray (Dark gray, Gray) • White	• Amazon • Walmart • www.febron.com
	Hair Illusion® Real Hair Fibers	• Auburn • Black • Brown (Dark brown, Brown)	• Amazon • Walmart • www.hairillusion.com
	Toppik™ Hair Building Fibers	• Auburn • Black • Blonde (Medium blonde, Light blonde) • Brown (Dark brown, Medium brown, Light brown) • Gray • White	• Amazon • CVS • Ulta Beauty • Walgreens • Walmart • www.toppik.com

	XFusion™ Keratin Hair Fibers	• Auburn • Black • Blonde (Medium blonde, Light blonde) • Brown (Dark brown, Medium brown, Light brown) • Gray • White	• Amazon • Target • Walmart
Hair powder/Powder cakes *Adds volume to scalp and fine hairs, making hair look fuller*	Boldify Hairline Powder	• Auburn (Dark auburn, Auburn) • Black • Blonde (Dark blonde, Medium blonde, Light blonde) • Brown (Dark brown, Medium brown, Light brown, Ash brown, Hazel brown) • Gray (Dark gray, Gray) • White	• Amazon • Walmart • www.getboldify.com

	Caboki 10x Hair Powder	• Auburn (Medium auburn, Light auburn) • Black • Blonde (Natural blonde, Golden blonde, Blonde) • Brown (Dark brown, Medium brown, Light brown) • Gray (Dark gray, Gray) • Salt and pepper (Dark, Light) • Silver/White	• Amazon • www.caboki.com

	Sevich® Hair Shadow Powder	• Auburn (Light auburn) • Black • Blonde (Medium blonde) • Brown (Dark brown, Medium brown, Light brown, Light coffee, Red brown) • Gray	• Amazon • Walmart
Hair crayons *Covers roots and thinning spots, making roots look fuller*	Bumble and bumble™ Color Stick	• Black • Brown	• Amazon • Nordstrom • Sephora • Walmart • www.bumbleandbumble.com
	Color Wow™ Root Cover Up	• Black • Blonde (Dark blonde, Platinum blonde) • Brown (Dark brown, Medium brown, Light brown) • Red	• Amazon • Sephora • Target • Ulta Beauty • Walmart • www.colorwowhair.com

	L'Oreal® Paris Magic Root Precision Pen	• Auburn (Dark auburn red, Light auburn red) • Black (Soft black, Black) • Blonde (Medium blonde, Light blonde) • Brown (Dark brown, Dark ash brown, Dark golden brown, Medium brown, Medium ash brown, Medium golden brown, Light brown)	• Amazon • CVS • Rite Aid • Target • Ulta Beauty • Walmart • www.lorealparisusa.com
	Toppik Fill Me In Hairline Filler	• Black • Blonde (Medium blonde) • Brown (Dark brown, Medium brown)	• Amazon • CVS • Rite Aid • Target • Ulta Beauty • Walgreens • www.toppik.com

Camouflage sprays *Fills in bald or thinning areas*	L'Oreal Paris Magic Root Cover Up Concealer Spray	• Black • Blonde (Dark blonde, Medium blonde, Light blonde) • Brown (Dark brown, Medium brown, Light brown, Light golden brown) • Red (Vibrant red, Red)	• Amazon • CVS • Target • Ulta Beauty • Walgreens • Walmart • www.lorealparisusa.com
	L'Oreal Paris Professional Hair Touch Up Root Concealer Spray	• Auburn • Black (Dark brown/Black) • Blonde • Brown (Light brown, Warm brown)	• Amazon • Walmart
	Rita Hazan™ Root Concealer Touch- Up Spray	• Blonde (Dark blonde) • Black (Dark brown/Black) • Brown (Light brown) • Red	• Amazon • Walmart • www.ritahazan.com

	Toppik Colored Hair Thickener Spray	• Black • Brown (Dark brown, Medium brown, Light brown)	• Amazon • Walmart • www.toppik.com
	TRESemmé® Root Touch-Up Temporary Hair Color Spray	• Black • Brown (Dark brown, Light brown)	• Amazon • Target • Walgreens • Walmart • www.tresemme.com
Camouflage lotions and creams *Fills in bald or thinning areas; applies like makeup*	PROCOVR™ Hair Loss Concealer Cream	• Auburn • Black • Brown • Gray (Medium gray, Gray/White)	• Amazon • Walmart • www.procovr.com

Hair tattoos

Hair tattooing is a cosmetic procedure that can help with hair loss. Hair tattoos help fill in bald spots or thinning areas on your scalp or eyebrows.

The following kinds of hair tattoos last a long time and change your appearance (how you look). They can also be made just for you, based on your hair color and skin tone.

Eyebrow tattoos

Eyebrow tattoos are for people who have eyebrow hair loss. Just like a regular tattoo, a needle is used to put pigment (color) deep into your skin. This will make you look like you have fuller, more defined

eyebrows. Eyebrow tattoos are real tattoos and are permanent (do not go away).

Microblading

If you do not want permanent eyebrow tattoos, you can try microblading (MY-kroh-BLAY-ding) instead. Microblading is a semi-permanent tattoo that lasts for 1 to 3 years.

It uses a blade-shaped tool to create tiny, hair-like incisions (cuts) along your eyebrows. Then, pigment is rubbed into your skin. The pigment is not placed as deep under the skin as an eyebrow tattoo. The color will fade over time, so you'll need to get regular touch-ups.

Scalp micropigmentation

Scalp micropigmentation (MY-kroh-pig-men-TAY-shun) is for people who have scalp hair loss. It uses thin, small needles to put tiny dots of pigment on your scalp. The dots vary in size and depth, making it look like you have fuller hair.

Many people who are bald use scalp micropigmentation to create the look of a buzz cut. Scalp micropigmentation is a real tattoo and is permanent.

Hair restoration options

Hair restoration can help encourage hair growth in areas of your scalp that are bald or thinning. Some options involve surgery, while others do not.

Restoring hair without surgery

A common way to restore hair without surgery is to take medicine. Some medicines help reduce hair thinning during chemo treatment. They also help regrow hair after chemo treatment.

Your healthcare provider may prescribe an oral or topical medicine. Oral

medicine is medicine you take by mouth, such as pills or tablets. Topical medicine is medicine you put right on your scalp. It's often a liquid, foam, or shampoo.

You can take an oral or topical medicine to help regrow hair faster. Make sure you talk with your healthcare provider first before starting a medicine. They'll tell you which medicine is safe for you to take.

Here's a list of the most common types of medicines:

Minoxidil (Rogaine®)

Minoxidil helps treat hair loss by making hair follicles grow new hair and stay in the active growth phase longer. It also helps hair become thicker and stronger by increasing blood flow to the scalp. Your healthcare provider can prescribe minoxidil as an oral or topical medicine.

Dutasteride (Avodart®) and Finasteride (Propecia®)

These medicines work by slowing or stopping your body from turning testosterone (a reproductive hormone) into dihydrotestosterone (DHT). DHT is a hormone that causes hair thinning and hair loss.

Taking these medicines can lower the amount of DHT your body makes. This helps slow down hair loss and helps your hair regrow. Your healthcare provider can prescribe dutasteride or finasteride as an oral or topical medicine.

Spironolactone (Aldactone®)

Like dutasteride and finasteride, spironolactone lowers the amount of DHT (a hormone that causes hair loss) your body makes. This helps slow down hair loss and helps hair regrowth. Spironolactone is often prescribed when other medicines (such as minoxidil) do not work. Your healthcare provider can prescribe spironolactone as an oral or topical medicine.

Restoring hair with surgery

A common way to restore hair with surgery is a hair transplantation (tranz-plan-TAY-shun). It's the best treatment for people who have a lot of hair loss. It's a permanent way to help restore hair growth to areas on the scalp with thin or no hair. Hair transplantation is also called hair transplant or hair replacement.

The goal of hair transplantation is to use hair that you already have to fill in thinning or bald areas. During this procedure, hair follicles are taken from a part of your scalp where hair growth is strong. This is often on the back and sides of your scalp. The hair follicles are then moved to the thinning or bald areas of your scalp, where they can grow.

This procedure is often done in a doctor's office by a dermatologist or plastic surgeon.

Having hair transplantation during your chemo treatment is not recommended. This is because the chemo can harm your hair follicles and scalp. It's best to wait until after your chemo treatment is done and your hair has grown back.

To learn more about hair restoration, talk with your healthcare provider. They'll tell you if it's right for you.

Tips for choosing the right products, medicines, and procedures to help with hair loss

In this resource, we mention a few products, medicines, and procedures to help with hair thinning and hair loss. There are so many options to choose from that it can be hard to know what's right for you. Here are some tips:

- **Comfort comes first:** Many people getting chemo have a dry, sensitive scalp. That's why it's helpful to choose products that are comfortable to wear, such as a soft beanie. It's also helpful to choose

products that do not irritate your scalp. Natural fibers (such as cotton and bamboo) are often less irritating than synthetic fibers (such as polyester).

- **Try a few options:** There are many products, medicines, and procedures that help with hair loss. You can try a few options to see what works best for you. You may find you need to use more than 1 product to get the look that you want.
- **Ask for help:** It can be hard to choose the right product, medicine, or procedure to help with hair loss. If you're confused or do not know where to start, talk with someone who can help you. This can be your hairdresser, healthcare provider, or someone with special training in hair loss caused by chemo, such as a dermatologist. They can give you information, support, and advice on how to choose what's right for you.

We know losing your hair is stressful. Choosing the right products, medicines, and procedures can make you more comfortable and confident. It's important to feel comfortable and confident in yourself. Remember, you are not alone. Your care team is here to support you every step of the way.

Financial support

When you shop for a wig or hairpiece, you may want to shop around and compare prices. People who lose their hair from cancer treatment may have insurance coverage for a wig or hairpiece. Before you visit any stores or websites, ask your insurance company if:

- They'll cover part of the cost of a wig or hairpiece.
- You need a prescription for a wig or hairpiece. If you do, ask your healthcare provider to write a prescription for a cranial prosthesis (KRAY-nee-ul pros-THEE-sis). The prescription should include a diagnosis code showing your hair loss is because of treatment for

cancer.

If you're in a support group, it may help to talk with others about financial support. They may be going through the same thing as you. They can give you information on the cost of hair loss treatments and how they got financial help.

You can also talk with your healthcare provider or dermatologist if you have any questions about financial support. They can connect you to resources at MSK that can help. To learn more, read *Financial Assistance Programs: How MSK Can Support You During Treatment* (www.mskcc.org/pe/financial-assistance).

Additional resources for financial support

American Cancer Society (ACS)
www.cancer.org
Some ACS offices offer free wigs to people with cancer. To learn more, visit your local ACS office or call 800-ACS-2345 (800-227-2345).

CancerCare
www.cancercare.org
CancerCare offers free wigs to people with cancer. Call 800-813-HOPE (800-813-4673) and ask to talk with a social worker.

The Look Good Feel Better program

The Look Good Feel Better program helps people cope with the ways cancer treatment can affect their appearance. During weekly sessions, makeup artists teach makeup methods, skin and nail care, hair styling, and head-covering options. To register for a class, visit www.lookgoodfeelbetter.org or call 800-395-LOOK (800-395-5665).

Males can find more information at
www.lookgoodfeelbetter.org/programs/men

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

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

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