Skin Care During Treatment With Epidermal Growth Factor Receptor Inhibitors (EGFRi)

This information will help you manage skin problems that can happen while you’re taking epidermal growth factor receptor inhibitors (EGFRi).

About EGFRi

EGFRi are a type of cancer treatments called targeted therapies. Targeted therapies can cause different side effects than normal chemotherapy does. Skin problems are a common side effect of treatment with EGFRi.

Your doctor will monitor you throughout your therapy to make sure that your skin is cared for. They may also recommend that you see a dermatologist (skin doctor) before or during your therapy.

EGFRi that may cause skin problems

There are many types of EGFRi. Some types cause skin problems more often than other types.
Skin problems are most often seen with the following EGFRi:

- Afatinib (Gilotrif®)
- Cetuximab (Erbitux®)
- Erlotinib (Tarceva®)
- Gefitinib (Iressa®)
- Lapatinib (Tykerb®)
- Necitumumab (Portrazza®)
- Osimertinib (Tagrisso®)
- Panitumumab (Vectibix®)
- Pertuzumab (Perjeta®)
- Vandetinib (Caprelsa®)

**Skin Changes During EGFRi Treatment**

You may have none, some, or all of the following skin changes.

**Acne-like rash**

- You may develop a rash with red and white bumps and mild burning, stinging, irritation, pain, or itching. The rash looks like acne, but it isn’t acne. Medications for acne won’t treat it.
- The rash usually appears within the first 2 weeks of therapy.
- The rash starts on your face, chest, and upper back. It can sometimes also appear on your trunk, arms, legs, and buttocks.
- For most people, the rash is mild to moderate and doesn’t affect daily life. However, for some people, the rash can cause significant discomfort that can stop you from doing your usual daily activities. If you’re over 70 years old, the rash may be
worse compared to people less than 70 years old.

- Sun exposure can make the rash more likely to develop.
- The rash usually goes away within 4 weeks after your EGFRi treatment.

**Dry, scaly skin and itching**

- You may develop dry skin with or after the acne-like rash. This can cause your skin to become rough, scaly, or flaky. The dry skin may also feel itchy.
- Dry skin usually happens within 2 months of starting EGFRi treatment.
- Areas of dry skin may appear on your scalp, trunk, arms, and legs. They may also appear on your fingertips, between your fingers, and on your heels. Dryness in these areas can cause painful cracks that may bleed.
- Dry skin and itching can be uncomfortable enough to disrupt sleep.
- Dry skin and itching can cause skin infections if it isn’t cared for properly. Talk with your doctor and read the “Managing Your Skin Changes” section for more information.
- Dry skin and itching usually get better after your EGFRi treatment is finished.

**Fingernail and toenail redness, swelling, and tenderness**
• You may develop redness, swelling, and tenderness in 1 or more of your fingernails or toenails.

• These symptoms usually start 1 to 6 months after you start therapy.

• The symptoms vary in how severe they are. They may make it hard for you to pick up small things such as a pen or a fork. You may have trouble buttoning your clothes or putting on shoes.

• If the symptoms get worse, you may have lesions (areas of damaged skin) around your nails that bleed easily and look like an ingrown nail.

• Your nails may become brittle (hard and likely to break), break, or become rigid.

• Nail changes usually get better slowly over several months after you finish your therapy. It may take a few months before they get better completely.

Hair texture changes, hair growth, or hair loss

• The texture of the hair on your head and body may change. The hair may become curlier, finer, or more brittle.

• You may notice these changes around 2 to 3 months after you start therapy.

• Hair may grow on your face or eyebrows. Your eyelashes may grow longer, curlier, and may cause discomfort in your eyes.
You may need to see an eye doctor.

- If you wish to remove any hair, we recommend threading or plucking. Don’t wax or shave the hair. Waxing and shaving can cause an infection and can irritate sensitive skin.

- You may start losing hair from your head several months after you start your therapy. You may have tenderness, crusty skin, scaly skin, burning, stinging, or tingling in the places where you lose your hair.

- These symptoms usually go away when your medication dose is lowered or when your EGFRi treatment is finished. Your skin will begin to heal after a few weeks.

### Preventing Skin Changes

Talk with your doctor or dermatologist. They will help you create a plan to limit skin changes during your EGFRi treatment. They can recommend over-the-counter products, such as sunscreens and moisturizers, to use during your treatment. They may also give you prescription medications, such as a topical (applied to your skin) steroid or oral (taken by mouth) antibiotic, to start taking when you start EGFRi treatment.

You can also follow the guidelines below to help prevent skin changes.
During the first month of EGFRi treatment, try to stay out of the sun. If you need to be in the sun, use a broad-spectrum sunscreen with SPF 30 or higher. Choose a sunscreen that says “broad spectrum” on the label and that has zinc oxide or titanium dioxide listed as ingredients. For more information, read our resource Understanding Sunscreen (www.mskcc.org/pe/sunscreen).

You can use makeup, but avoid brands with many ingredients. Your doctor or nurse will give you examples during your appointment.

Moisturize your skin once a day with an over-the-counter (not prescription) fragrance-free moisturizer such as Vanicream®, Aquaphor®, or Cetaphil®. For more information, read our resource Caring for Your Dry Skin (www.mskcc.org/pe/caring_dry_skin).

Managing Skin Changes

Tell your doctor or nurse as soon as you notice any skin changes. They may give you prescription medications to help manage your skin changes.

- Don’t stop taking any medications unless your doctor or nurse tells you to.
- If you haven’t seen a dermatologist, ask your doctor or nurse to refer you to a dermatologist at MSK.
- You can use makeup to hide skin changes. It’s best to use a dermatologist-approved cover-up such as Dermablend® or CoverFX®. Stop using makeup if it causes redness or itching.
- Continue moisturizing your skin daily using a fragrance-free moisturizer.

You can also follow the guidelines in the table below to find possible treatments for your symptoms.

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<th>Symptom</th>
<th>Possible Treatments</th>
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| Dry skin                 | • Apply an over-the-counter fragrance-free moisturizer (such as Vanicream®, Eucerin®, or Aquaphor®) at least once daily.  
                           | • Use an ointment or cream, not a lotion. Ointments and creams usually work better. |
| Scaly areas              | • Apply over-the-counter ammonium lactate (AmLactin®) cream twice a day.           |
| Cracks in your fingertips| • Apply a cream or ointment containing zinc oxide (such as Desitin® Rapid Relief or Desitin Maximum Strength) 1 or more times every day.  
                           | • Use liquid bandage (such as New-Skin® or Skin Shield®) for cracks that don’t bleed. Don’t use liquid bandage for longer than 1 week or on infected areas.  
                           | • Use prescription topical antibiotics.                                                |
| Itching                  | For itching on your skin:                                                            |
                           | • Apply an over-the-counter anti-itch cream (such as Sarna® Ultra or Sensitive) or take an oral anti-itch |
medication (such as Benadryl®). Most oral anti-itch medications cause drowsiness, so you may want to take it at night.

- Use prescription topical or oral medications.

For itching on your scalp:

- Apply prescription solutions or foams that contain corticosteroids.

| Red, inflamed skin          | Apply prescription creams containing corticosteroids |
|                            | If your doctor thinks you may have a skin infection, they may prescribe a topical or oral antibiotic or antifungal medication. |

| Swelling around fingernails or toenails | Use prescription medications, including topical antibiotics. |
|                                         | Wear soft shoes. |
|                                         | Avoid activities that could injure your fingers or toes. |
|                                         | If you have any signs of infection (such as pain, foul odor, or drainage), call your doctor’s office. You can also do the following: |
|                                         | 1. Mix together equal amounts of white vinegar and tap water. |
|                                         | 2. Soak your fingers or toes in the mixture for 15 minutes. |
|                                         | 3. Do this every evening until the signs of infection are gone. |

| Increased hair growth on your face | You can remove hair by plucking (such as threading or tweezing) or using an electric razor. |
|                                     | Don’t use chemical hair removers, regular razors, or wax. These things can cause an infection or irritate your |
Call Your Doctor or Nurse if You Have:

- A temperature of 100.4° F (38° C) or higher
- Chills
- Skin symptoms that don’t get better or get worse
- New or worsening symptoms after starting a therapy to treat your skin
- Skin that’s hard or hot to the touch
- Yellowish or greenish drainage from your skin or nails
- Foul smell from your skin or nails
- Increasing redness or swelling
- Increasing pain or discomfort
- Any questions or unexpected problems
If you have any questions, contact a member of your healthcare team directly. If you're a patient at MSK and you need to reach a provider after 5:00 PM, during the weekend, or on a holiday, call 212-639-2000.

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