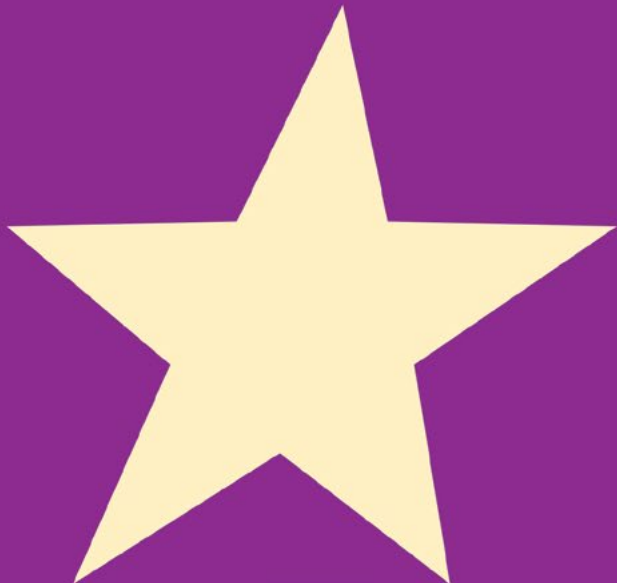


FIGHT
★
COLORECTAL CANCER



SKIN TOXICITY

Tips for Managing Side Effects of the Skin

SKIN TOXICITY

This mini magazine is designed to inform you about skin toxicities, which are the side effects of the skin caused by some colorectal cancer treatments. In this publication we provide an overview of skin toxicity, tips for managing it, and survivor stories.

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COVER:
Melissa Bahr
Stage III fighter

FIGHT CRC

ABOUT FIGHT COLORECTAL CANCER

We FIGHT to cure colorectal cancer and serve as relentless champions of hope for all affected by this disease through informed patient support, impactful policy change, and breakthrough research endeavors.

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WHAT IS EGFR RASH?

EPIDERMAL GROWTH FACTOR Receptors (EGFRs) are located on cells within the body. The EGFRs receive signals alerting them to start the process of growing and dividing cells. The goal of an EGFR-inhibitor (EGFR-i) for cancer treatment is to slow cancer cell growth by blocking the cell's EGFR from receiving the signal to grow. EGFR-i, such as cetuximab (Erbix[®]) and panitumumab (Vectibix[®]), are associated with increased survival for some colorectal cancer (CRC) patients. However, the skin—specifically, the epidermis (outer layer), hair follicles, and oil-producing glands—has more EGFRs than other organs and can be affected

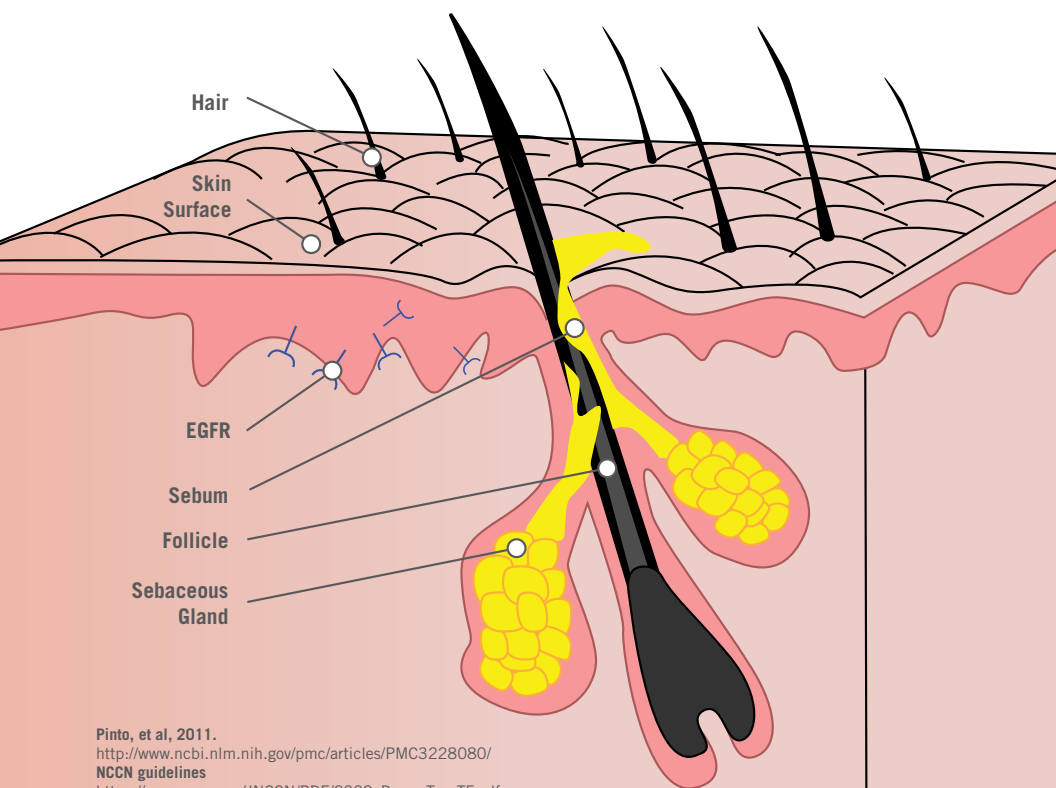
by the treatment. This side effect is skin toxicity. It is also known as skin rash, chemo rash, and EGFR rash.

While not all patients being treated with an EGFR-inhibitor will experience skin toxicity, studies suggest that 90% of those treated with cetuximab or panitumumab will experience it to some degree. Sometimes when the skin rash presents, it can be a sign that the treatment is working. ►

A majority of patients on EGFR inhibitors will experience skin toxicity to some degree.

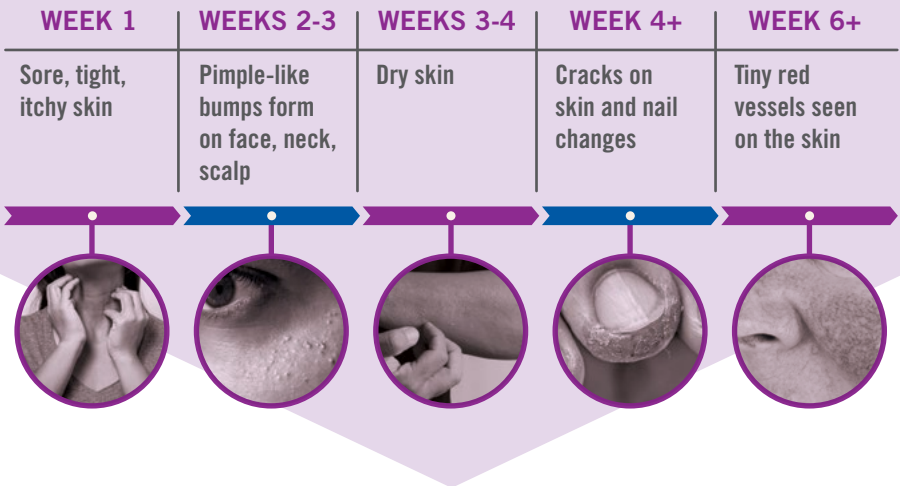
EGFR skin toxicity shows up in many ways. Here are the signs that you may be experiencing skin tox:

- Itchy skin
- Pimple-like bumps on face, neck, and chest
- Sore, tight sensation on face, neck, scalp, and chest
- Cracks along the skin
- Changes in hair texture and curling of the eyelashes and eyebrows
- Dry, flaky skin on face, neck, and scalp
- Infection of the skin around the nail
- Brittle nails, nails that become loose in the nail bed
- Sores in and around the nose and mouth



Pinto, et al, 2011.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3228080/>
NCCN guidelines
https://www.nccn.org/JNCCN/PDF/2009_Derm_Tox_TF.pdf

Skin rash is different for everyone, and dermatologists often categorize the rash into grades I-V, based on severity. This timeline describes when and how skin toxicity from cancer treatment may show up.



▶ HOW TO MANAGE ITCHY SKIN DURING TREATMENT



MANY PATIENTS SAY THE MOST irritating thing about skin toxicity is the sensation. It's described as tingling, itchy, painful, irritating, tight or burning. The most important advice is not to scratch the affected areas! Although it seems like an easy way to get rid of the itch, it's not—scratching can aggravate the skin more and lead to infection. Also, hot water will not alleviate these sensations. Avoid hot showers because they remove some of your body's natural oils that keep in moisture. For immediate relief, try a cool compress on the affected area before patting dry and applying moisturizer.

For more tips on management, read the **10 Must Haves for Managing Skin Rash** on page 11 and download our Side Effects Mini Magazine at: FightCRC.org

*Although this resource is focusing on EGFR skin toxicity, it's important to note that other cancer drugs can lead to side effects of the skin. For example, regorafenib (Stivarga®) can cause severe rash and hand-foot skin reactions (HFSR).



NAIL CARE DO'S & DON'TS



- Moisturize hands and feet
- Keep nails short and clean
- Wear sandals or shoes that don't irritate toenails
- Take your own sanitized tools if you go to a salon for a manicure. If you do your nails at home, sanitize your footbath and tools.
- Opt for water-based nail polish and polish remover without harsh chemicals
- Use Krazy Glue® or a liquid bandage to repair cuts around fingers and toes
- Use gloves when doing dishes, cleaning and gardening



- Use fake nails or gel nails. They can damage the nail when removed and can also trap bacteria near the nail or nail bed.
- Bite your nails
- Pull on loose skin around the nails
- Cut or push back cuticles



CAN I STILL WEAR MAKEUP WITH A SKIN RASH?

We asked professional makeup artist Summer Rose to share some insight for makeup use with skin rash.



Summer Rose
Owner of Summer Rose Designs

Q: What beauty advice might you give to patients undergoing treatment?

Summer: Having just been diagnosed with squamous cell carcinoma myself, I'm familiar with sensitive, dry, itchy, sore skin. Makeup should allow you to shine from the inside out! It can lift your spirit. A little self-care can increase your confidence.

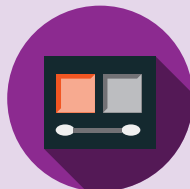
Q: What are alternatives to heavy foundation for men and women who want to cover skin rash?

Summer: BB cream (beauty balm or blemish balm) is a light, breathable alternative to foundation. It can moisturize, cover imperfections and even skin tone. My male clients feel completely comfortable wearing it. It's lightweight with just the right amount of coverage—they forget they're even wearing it.

Q: What tips do you recommend?

Summer:

1. Clean your makeup brushes regularly with a brush cleaner
2. Use makeup brands that don't clog pores (non-comedogenic) and that are paraben-free and phthalate-free
3. Cleanse your face daily and use a fragrance-free moisturizer
4. Remember it's always okay to take a day off from makeup and let your skin breathe



HAND-FOOT SKIN REACTION



WHILE EGFR-INHIBITOR DRUGS ARE NOTORIOUS FOR A rash on the face, other drugs, like 5-FU, are notorious for a skin condition called hand-foot syndrome. Additionally, specific targeted therapies, like regorafenib (Stivarga), can lead to a side effect called hand-foot skin reaction (HFSR). Regorafenib is a multikinase inhibitor, which may slow the growth of cancer by blocking specific proteins on certain normal and cancer cells. Symptoms of HFSR as a result of this treatment include:

- Redness (called palmar-plantar erythema)
- Tenderness
- The peeling of the palms of the hands and soles of the feet
- Numbness and tingling often develop as well, and the skin can become dry and peel.
- Cracked, flaking, or peeling skin
- Pain and difficulty walking or using your hands

These symptoms often make it incredibly hard to do normal activities, like buttoning a shirt, or using a pair of scissors.

SURVIVOR SPOTLIGHT: Michael Mancini, Stage IV Survivor

My treatment nurses warned me of the possibility that I would experience dry and peeling skin on my hands and feet. After the first 2 or 3 cycles of the medication, I could see and feel the changes. It was manageable at first, but became progressively worse the longer I was on treatment.

I am dedicated to staying fit and healthy and I weight train 4-5 times per week. Any time I would grip or squeeze anything, it felt

like I was squeezing a handful of razor blades. All of the lines and crevasses in my hands felt like little paper cuts. The same with my feet. As I made strength gains in the gym, it became more painful to workout. At times, the pain in my feet was so bad, it hurt to put weight on them when I walked. My hands also have become very red, dry, cracked, and leathery.

After a while, I lost my fingerprints because of the skin peeling!



Michael Mancini
Stage IV survivor

Fingerprint technology on my iPhone no longer worked. I couldn't remember passwords for all of my websites. I couldn't pay with my "Wallet" at the cafeteria at work. I would joke with my friends and co-workers that I should rob a bank because they couldn't trace my fingerprints.

Because I already have neuropathy in my fingertips, and now add the dry, cracked, peeling skin, it makes it very difficult to button my dress shirts when I'm getting ready for work in the morning. My oncologist had to give me a cycle off the meds here and there. They even gave me a dose reduction because it was so bad.

As someone who was a group fitness trainer, and works in corporate America full time, it was very hard to accept that this was my new normal. But, it's better than the alternative.

Keep extra **hand cream** in your car, your bag, etc. because you will need it! Wear **gloves** when you workout or do anything outside (rake leaves, work in the garden). Drink plenty of **water** throughout the day.

Another side effect of chemotherapy is mucositis, or mouth sores. To learn more about mouth sores and how to manage, download the **Side Effects Mini Magazine**.



YOU ARE BEAUTIFUL!



“I went into treatment thinking, ‘I’ll be okay – I’m confident enough that something like this won’t bring me down.’”

BUT ACCORDING TO PATSY, YOU never really know how you’ll react to skin rash until you have it.

“Deep down I knew it was okay. My friends weren’t saying petty things to me – but I knew I looked different. Maybe everyone wasn’t staring at my rash, but I felt like they were.”

Patsy’s rash developed exactly as her oncology team described – showing up on her cheeks, back and neck.

“My rash wasn’t painful. I experienced irritation and it was very itchy. The worst was that it itched but I couldn’t scratch it.”

Her first stride in gaining confidence and comfort while on her cetuximab (Erbix[®]) protocol was to talk with her doctor.

Together they ruled out anything that made the rash worse and she got access to whatever made it better. Patsy’s regimen included daily sunscreen, prescribed ointments, oral medications,

long sleeves and a hat.

No medication made the discomfort go away.

“I felt like it had to run its course,” she said.

The rash faded away four weeks after her treatment ended.

Unscented, mild creams and lotions helped with dryness, but the sensation of something on her face was Patsy’s largest physical struggle with the side effect. Her biggest tip for others is to **STAY HYDRATED** with water, coconut water and electrolytes, and foods with high water content.

“My rash wasn’t painful. I experienced irritation and it was very itchy. The worst was that it itched but I couldn’t scratch it.”



Patsy
Stage IV fighter



PATSY'S TIPS:

- **Affirmations.** Talk to yourself, remind yourself that you're a beautiful person.
- **Pedicures.** You deserve to be pampered.
- **Hats.** They can be stylish and fun!
- **Perspective.** Don't give the rash too much power – it can overcome you. Continue living.
- **Fun.** Slap on some red lipstick and mascara and get out of the house! "A little makeup had a way of making me feel empowered, like, I'm not letting this get me down."
- **Stay hydrated.** Water, coconut water, electrolytes, and foods with high water content.



WHAT ABOUT FACIAL HAIR?

TIP: To avoid bleeding and infection, don't shave at the first sign of a breakout. Try using an electric razor as they are less aggressive on skin.

I didn't wax my eyebrows because it would hurt, even if the rash wasn't directly there. Instead, I would tweeze and trim, which avoided extra irritation to the skin. - Patsy

TIP: Avoid waxing any unwanted facial hair – waxing is harsh on skin.

FACING SKIN TOXICITY

Sarah DeBord | Stage III survivor



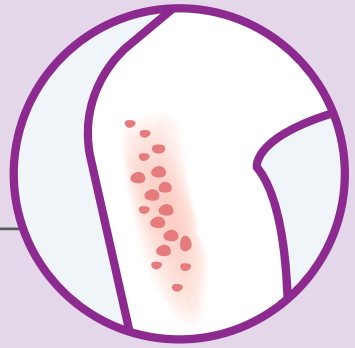
I HAD BEEN AT THE CHEMO GAME FOR OVER 5 YEARS when my turn for an EGFR-inhibitor rolled around. I had heard the stories and seen the photos of the dreaded rash coming my way. But that was all I knew, and for the most part all that was conveyed to me about the side effects of the drug I was about to receive. Adding the potential for a little dry skin and infected nail beds sounded like a walk in the park after my previous regimens.

As I plied through the weekly infusions, my skin deteriorated and took my quality of life down with it. I wanted to hide my red, pustule-covered face from the unavoidable stares in public, or selfies my friends would want to take. I could barely walk or use my fingers to do basic household chores lest they crack open and bleed. And I would have never thought the potential for nail bed infections would land me in the hospital on IV antibiotics, and require my toenails to be removed on several occasions over coming months.

I found my daily skin care routine wasn't meant to prevent or stop the inevitable side effects, only to treat, tend, and soothe them. But the routine was vital to daily management and maintenance of skin toxicity.

In retrospect, it was a small price to pay for my time on a drug that knocked back much of the progression my disease had made over the previous years.

QUESTION AND ANSWER



Q: What drugs cause EGFR rash?

A: Common EGFR-inhibitors used for colorectal cancer patients include: Cetuximab (Erbix[®]) and Panitumumab (Vectibix[®])

Q: Is this different than other rashes?

A: Acne, pimples, rash, hives, and sunburn are common, and these conditions can be uncomfortable. Although EGFR rash may visually resemble these conditions, it's entirely different and requires special attention.

Q: What drugs lead to hand-foot syndrome and hand foot skin reaction?

A: Certain types of chemotherapy and targeted therapy could lead to side effects of the hands and feet.

Q: Will skin rash and hand-foot syndrome go away?

A: Yes. Most EGFR-related skin rash does not lead to scarring if managed properly. Post-inflammatory hyperpigmentation may last up to three months after treatment for people with darker skin, but generally this goes away. Hand-foot syndrome and HFSR will also go away after treatment ends. If your side effects are severe, your doctor may temporarily stop treatment until the symptoms get better.

Q: Will acne make my skin rash worse?

A: There's no link between pre-existing skin issues and increased risk of EGFR rash.

“As a colorectal cancer survivor of stage 3c and currently still on therapy, it is important to know how treatment affects your skin. Since my current treatment plan involves oral chemotherapy, the strength of the medication can sometimes cause painful breakouts on my face and leave lasting scars. Having information that helps me understand the cause and effect of skin toxicity and how I can relieve those breakouts, is a great help to me.”

Gene P. Farrell
Stage III survivor



10 MUST-HAVES FOR MANAGING SIDE EFFECTS OF THE SKIN

1

Thick moisturizing creams, also called emollients.

Apply after showering and throughout the day as needed.

Why? To keep skin moisturized.

What to look for: Fragrance-free and extra-moisturizing emollients, such as Aquaphor® or Eucerin®.

2

Dishwashing gloves

Wear when doing dishes and cleaning the house.

Why? To avoid excess water exposure and contact with cleaning product chemicals.

3

Sunscreen

Learn more about sun exposure on page 15!

What to look for: “The sunscreen that is best is the one that you like enough to consistently wear.”
– Dr. Porto

4

Non-drowsy over-the-counter antihistamines

Why? To manage itching.

Talk to your doctor before use.

What to look for: Fexofenadine Hcl (products like generic Allegra®)

5

Sedating (drowsy) over-the-counter antihistamines

Why? To manage itching before bedtime.

Talk to your doctor before use.

What to look for: Diphenhydramine HCl 25mg (products like generic Benadryl®)

6

Over-the-counter pain medication

Why? To reduce pain.

Talk to your health care team, they may suggest a prescription.

What to look for: Acetaminophen (products such as Tylenol®)



7

Topical itch ointments or creams. Apply over affected area as needed to manage itching.

What to look for: Hydrocortisone 1% (products like Cortizone-10®). Also look for products with menthol or camphor (such as Sarna® Original).



8

Moisturizing face and body wash

Why? To keep skin clean and moisturized while keeping bacteria away.

What to look for: Look for products geared toward sensitive skin, like Dove® or Aveeno®.



9

Clothing

Why? To keep skin safe from the sun. What to look for: Wear cotton clothing and avoid any synthetic materials that are rough against your skin, like polyester.



10

Unscented detergent

Why? Use to wash clothes, towels, and linens to avoid extra chemical exposure to the skin.

What to look for: Look for products without fragrance, such as All® Free and Clear or similar products.





STAY SUN SAFE



Dennis Porto, M.D.

Whether it's basking in the sun to get a tan, spending mornings gardening or simply going for a walk, it's well known that sun exposure can lead to accelerated aging of the skin, skin discoloration and skin cancer. While undergoing EGFR-inhibitor treatment your skin will be even more sensitive to the sun's rays. Sun protection is imperative to skin care, especially with skin rash. Even when there's cloud coverage, be protected.

We interviewed dermatologist Dennis Porto, M.D., to answer our top questions about sun protection.

Q: I'm on an EGFR-inhibitor therapy—why should I protect my skin from the sun?

Dr. Porto: Many patients have noticed that [skin] rash is worsened in sunlight or heat. In addition, some patients will notice sensitivity to sunlight in general, independent of this rash. Different adjunctive (additional) medications like

antibiotics that you might be taking may also make you more sensitive to the sun.

Q: What are the best methods of sun protection?

Dr. Porto: The best method is sun avoidance. This includes staying out of the sun during peak hours and wearing sun-protective clothing



“The side effects did not bother me initially. Later they became annoying, but I never felt uncomfortable or embarrassed. I was so focused on finishing my treatment, I just wanted to feel well.”

- Diego Davis-Olegario, Stage III survivor

and hats. Some patients feel that sunscreen helps their rash as well, but others feel that it makes no difference.

Q: What are the side effects of excess sun exposure for a patient on EGFR-inhibitor?

Dr. Porto: Patients will notice a worsening of their rash with sun exposure. They also may be more susceptible to sunburn, which may be exacerbated depending on what other medications they are taking.

Q: How often should I apply sunscreen?

Dr. Porto: About every two hours to all sun-exposed skin. If you don't find that sunscreen helps your rash, sun avoidance may be a better option. If your skin gets wet, you will need to reapply sunscreen more often.

Q: Can I still use a tanning bed?

Dr. Porto: No one should ever use a tanning bed. Tanning beds cause skin cancer and an aged appearance to the skin. Patients on EGFR-inhibitors will have even more difficulty with tanning beds as they will worsen their rash and may cause extensive sunburns.

Q: I have dark skin, do the rules of sun protection still apply to me?

Dr. Porto: Yes! Everyone should practice safe sun habits. However, whether your individual rash will worsen with sunlight is uncertain.

Q: What is the best kind of sunscreen to use?

Dr. Porto: The sunscreen that is best is the one that you like enough to consistently wear. Dermatologists recommend an SPF of at least 30.

DennisAPorto.com

PREVENTION



IF YOU ARE GOING TO BEGIN an EGFR-inhibitor, talk with your providers – before you start – about what you can do to prevent the rash, and what you can do to minimize rash severity.

▶ Ask your health care team about finding a dermatologist who has worked with cancer patients and understands EGFR-inhibitors.

▶ Your doctors can work together to prescribe medications, like an antibiotic (such as tetracycline, doxycycline, or minocycline) or ointment to use before treatment begins.



WATCH Dr. Mitchell explain skin toxicity and offer tips to patients dealing with this side effect at: [FightCRC.org/SkinTox](https://fightcrc.org/SkinTox)

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Fight Colorectal Cancer is a trusted, nonprofit advocacy organization dedicated to empowering patients to be their own health advocates.

RESEARCH

At Fight CRC, we fight to make breakthrough research a reality. We fund innovative research grants, convene meetings with national and global experts on the biggest issues in CRC, and we train survivors and caregivers to be a part of the scientific discussions. To get involved in research and stay up to date on the latest scientific breakthroughs, follow [@FightCRC](https://twitter.com/FightCRC) on Twitter, or visit us at FightCRC.org/research.

ADVOCACY

Are you ready to turn your pain into purpose? By sharing your story and raising awareness, you can help change policy around colorectal cancer. That's what the Fight CRC Advocacy Program is all about! We advocate on Capitol Hill. We engage and teach grassroots advocates like you to get involved in your communities. To learn more about how to raise your voice for CRC advocacy, visit FightCRC.org/action-center.

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RESOURCES

To download or request print materials, go to: FightCRC.org/Resources

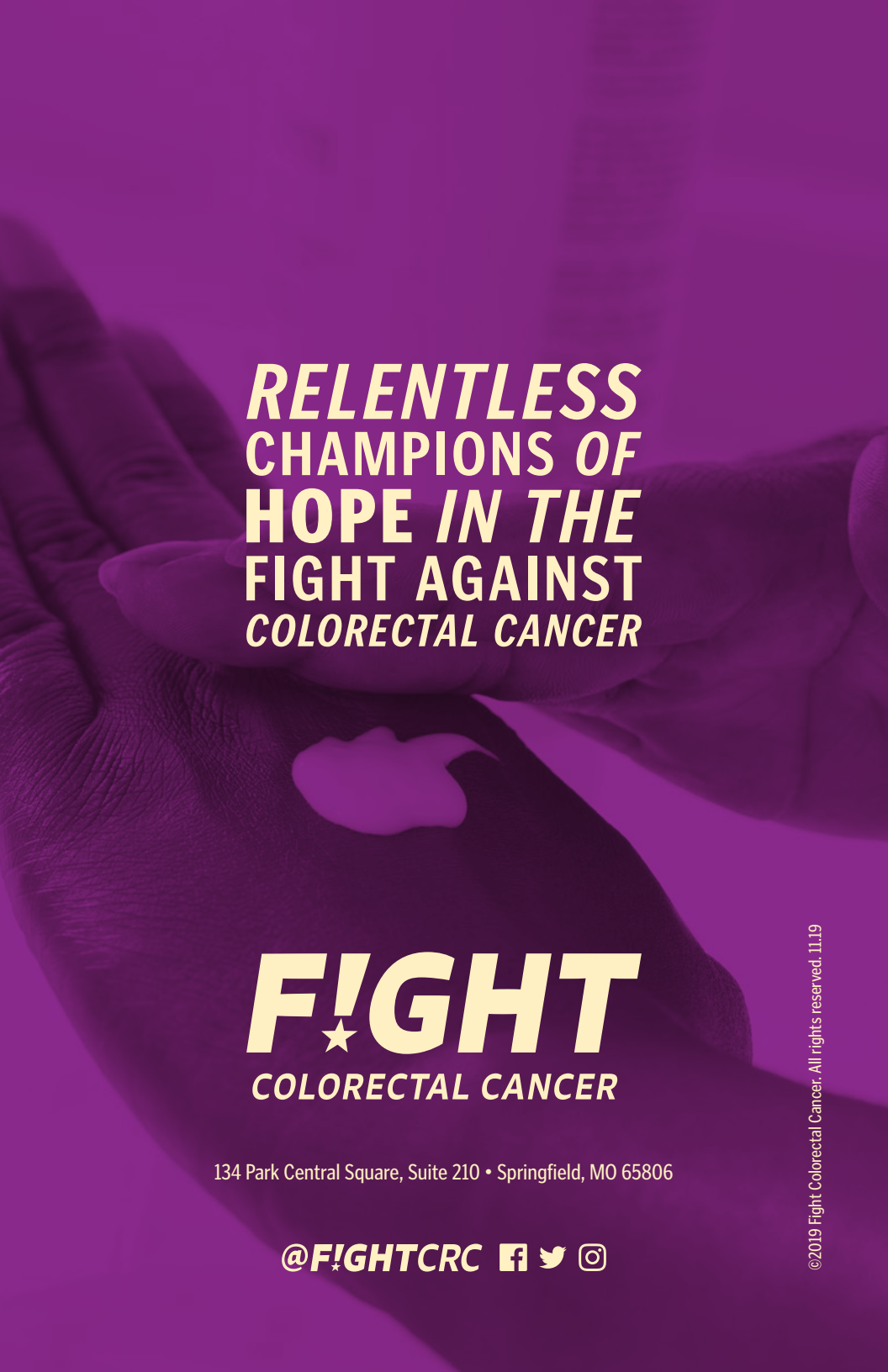
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