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# Will Cold Capping Save Hair During Chemo?

Medically Reviewed by [Laura J. Martin, MD](#) on October 19, 2024 | Written by Beth Braverman

A 'Traumatic' Chemo Side Effect | How Cold Cap Treatments Work

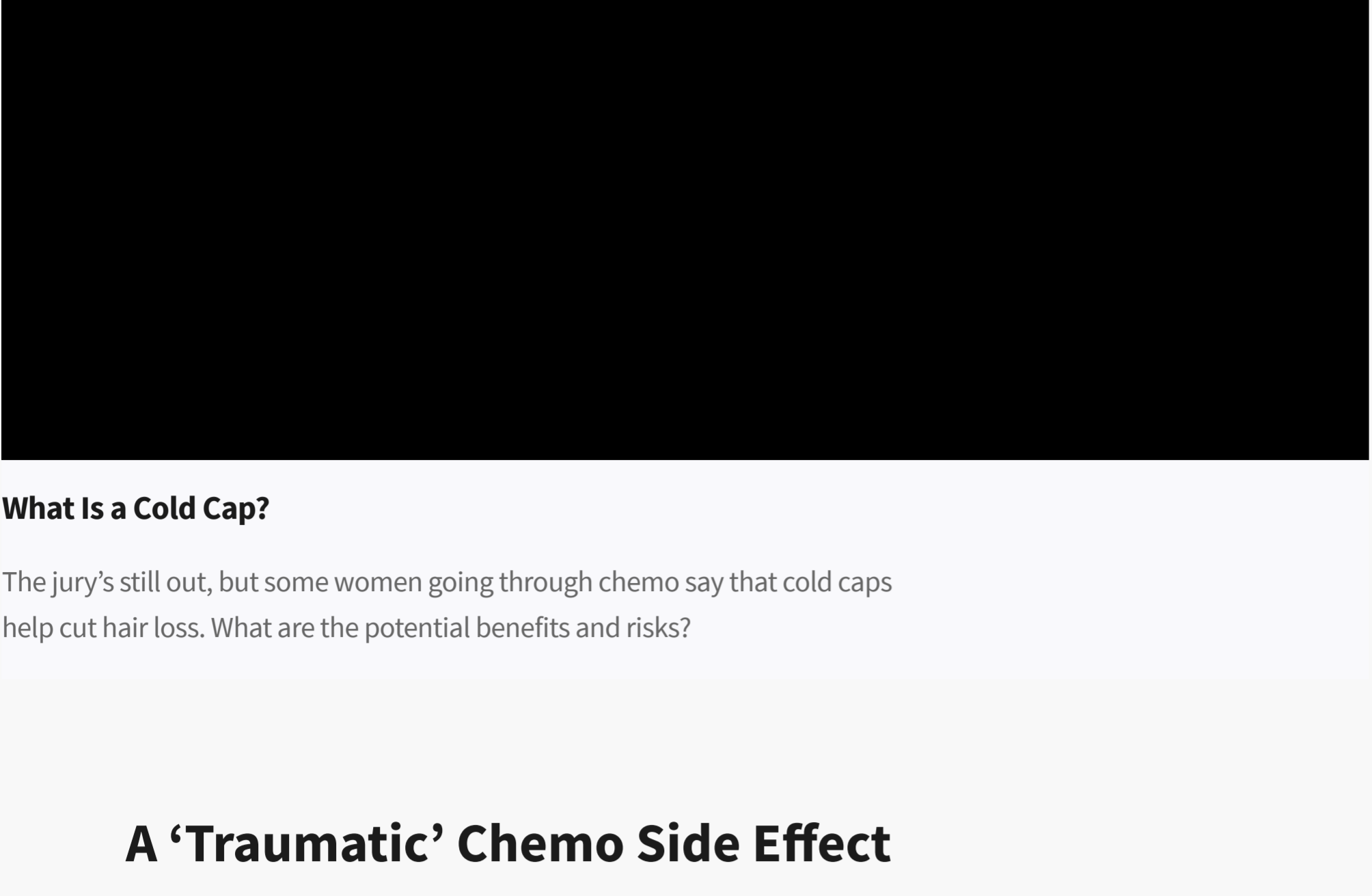
How Well Do Cold Caps Work? | Hair Texture Matters ▾

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After seeing friends shave their heads to deal with hair loss during chemotherapy for [breast cancer](#), Florida resident Jo Steinhart, 70, hoped that she would not have to do the same after getting diagnosed with stage II breast cancer.

When a nurse navigator told Steinhart about cold capping, a process that might help save her hair during treatment, the retiree was interested right away. While cold capping was uncomfortable, added time to her visits, and wasn't covered by insurance, Steinhart says that she did keep most of her hair, which was good for her emotional well-being during treatment.

"It had a huge impact on me that I didn't go bald," she says. "My hair considerably thinned, but I never lost all of my hair."



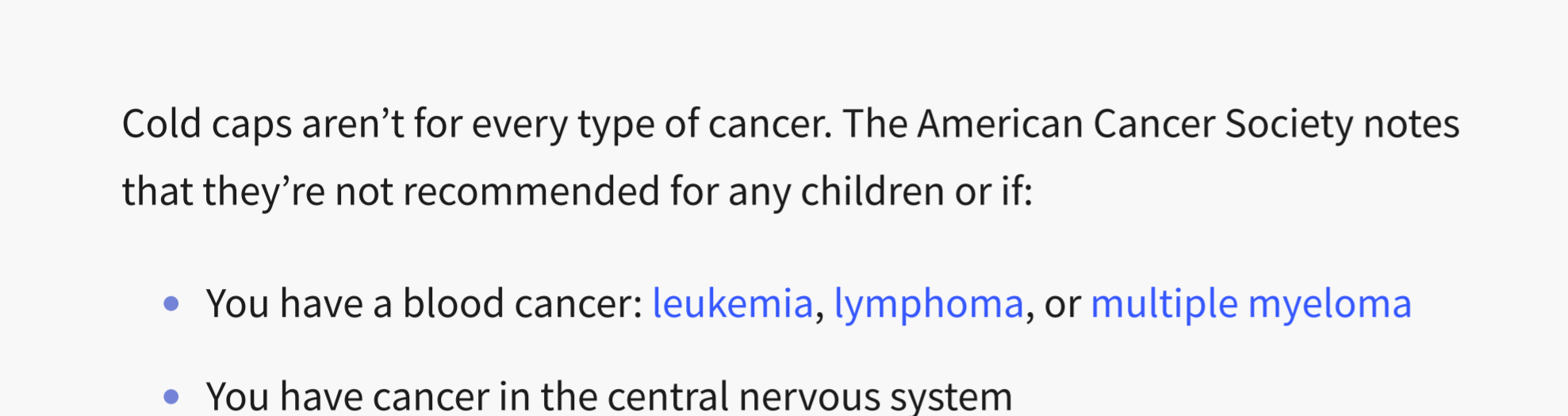
## What Is a Cold Cap?

The jury's still out, but some women going through chemo say that cold caps help cut hair loss. What are the potential benefits and risks?

## A 'Traumatic' Chemo Side Effect

A highly visible sign of some types of [chemotherapy](#), temporary hair loss is a major source of stress for many patients.

"Chemotherapy-induced [alopecia](#), or hair loss, is often one of the most common and often one of the most traumatic side effects for patients, and one that they often rate as the most difficult to deal with," says Beth McLellan, MD, director of supportive onc dermatology at Montefiore Einstein Comprehensive Cancer Center. "There are women who would decline or choose a less effective regimen so that they won't lose their hair."



Cold caps aren't for every type of cancer. The American Cancer Society notes that they're not recommended for any children or if:

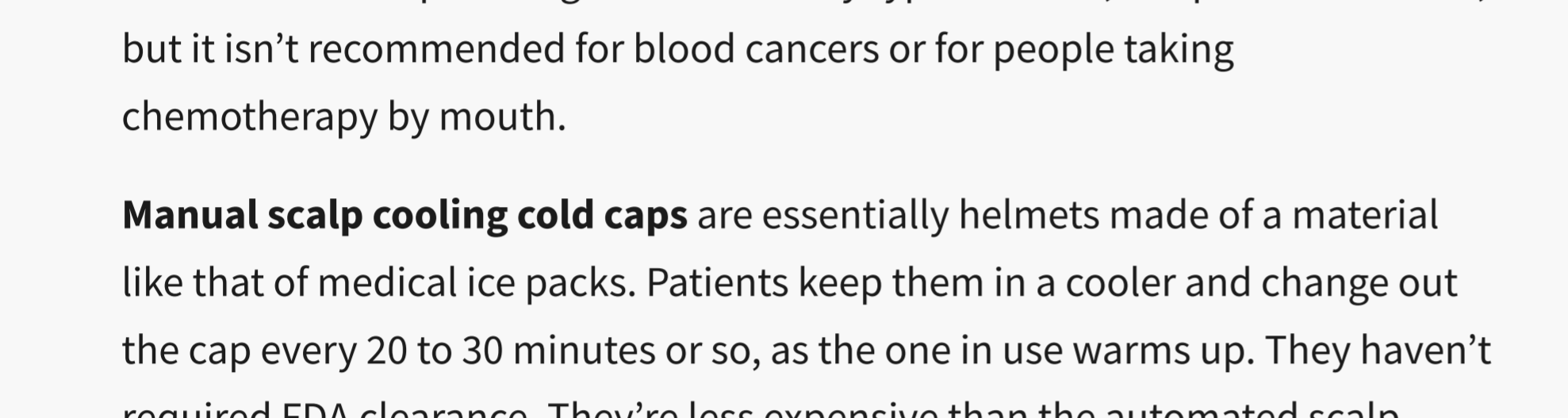
- You have a blood cancer: [leukemia](#), [lymphoma](#), or [multiple myeloma](#)
- You have cancer in the central nervous system
- You're getting chemo before you get a stem cell transplant
- You've had, or are going to have, radiation therapy to your skull

## How Cold Cap Treatments Work

Scalp cooling systems and manual cold caps aim to keep the scalp cold enough, between 64 and 72 F, to restrict its blood vessels. This reduces blood flow – and chemotherapy – to the hair follicles. The [temperature](#) of the coolant in the cooling cap is much colder: about 37 F.

Typically, patients wear the caps for 30 to 45 minutes before a chemotherapy session and for several hours after. About 11,000 U.S. cancer patients have used scalp cooling to reduce hair loss during chemotherapy, according to data published in January 2024.

**RELATED:** [What Life After Breast Cancer May Look Like](#)



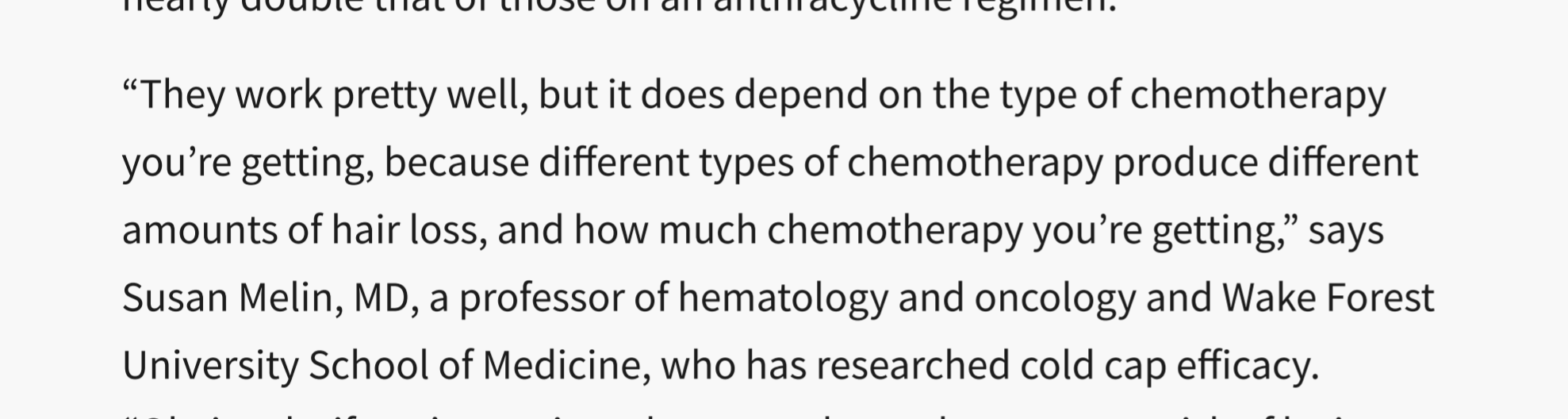
There are two types of systems:

**Automated scalp cooling systems** include a fitted helmet attached to a machine, which continuously pumps a cooling liquid through the cap, maintaining a constant temperature. The FDA cleared the first such scalp cooling system in 2015, but patients in Europe have been using the approach for decades. Scalp cooling works for many types of solid, lump tumor cancers, but it isn't recommended for blood cancers or for people taking chemotherapy by mouth.

**Manual scalp cooling cold caps** are essentially helmets made of a material like that of medical ice packs. Patients keep them in a cooler and change out the cap every 20 to 30 minutes or so, as the one in use warms up. They haven't required FDA clearance. They're less expensive than the automated scalp cooling systems.

## How Well Do Cold Caps Work?

Think of it this way: Cold caps may reduce chemo-related hair loss, but not totally prevent it. And the results vary.



One study lasted 13 years and included more than 7,000 Dutch patients. The researchers found that 56% of patients who used scalp cooling didn't need to use a head cover, such as a wig or scarf, during their chemo treatment. And 53% said they still had "good retention" of hair when they started their final chemo treatment. The results differed based on the type of chemo. Among patients getting taxane, scalp cooling treatments had a 78% success rate, nearly double that of those on an anthracycline regimen.

"They work pretty well, but it does depend on the type of chemotherapy you're getting, because different types of chemotherapy produce different amounts of hair loss, and how much chemotherapy you're getting," says Susan Melin, MD, a professor of hematology and oncology and Wake Forest University School of Medicine, who has researched cold cap efficacy. "Obviously, if you're getting a lot more chemotherapy, your risk of losing more hair goes up."

Melin says that often, patients who have hair loss while cold capping see their hair grow [back](#) more quickly than patients who haven't used a cold cap.

## Hair Texture Matters

The texture or style of the patient's hair also affects how well the device works.

"A lot of it has to do with how well the cap actually fits to your scalp," says Julia McGuinness, MD, a breast medical [oncologist](#) at Columbia University Medical Center in New York City. "If you have curly hair or thicker hair, maybe the cap is not sitting as well or having the same close connection with the scalp to have that impact on the blood vessels."

McLellan is leading a study on how to make scalp cooling more effective for women of color, who often have thicker hair textures. That study is treating those patients' hair with a deep conditioner and loosely braiding or twisting it before applying the cap.

[Read more about hair loss in Black women with breast cancer.](#)

## What It Might Feel Like

There are a few drawbacks involved with cold capping, including feeling chilly during the chemotherapy process or having a [headache](#).

"Some women describe it like an [ice cream headache](#) or a brain freeze," McGuinness says. "It's a sensitive area, but there have not been any serious side effects in terms of skin damage with the current technologies. It's just cooling the scalp. It's not delivering any kind of therapy."

Patients also must be willing to spend up to two extra hours in the chemotherapy infusion suite to wear the cap before and after treatment with the machines, and for up to five hours after with manual cold caps.

"It's a much longer day," says Claudia Falzarano, tri-state manager for Penguin Cold Caps, a manual cold capping company. "But the good news is some people only have four or six cycles, so that's four or six longer days in your life. That helps put it into perspective."

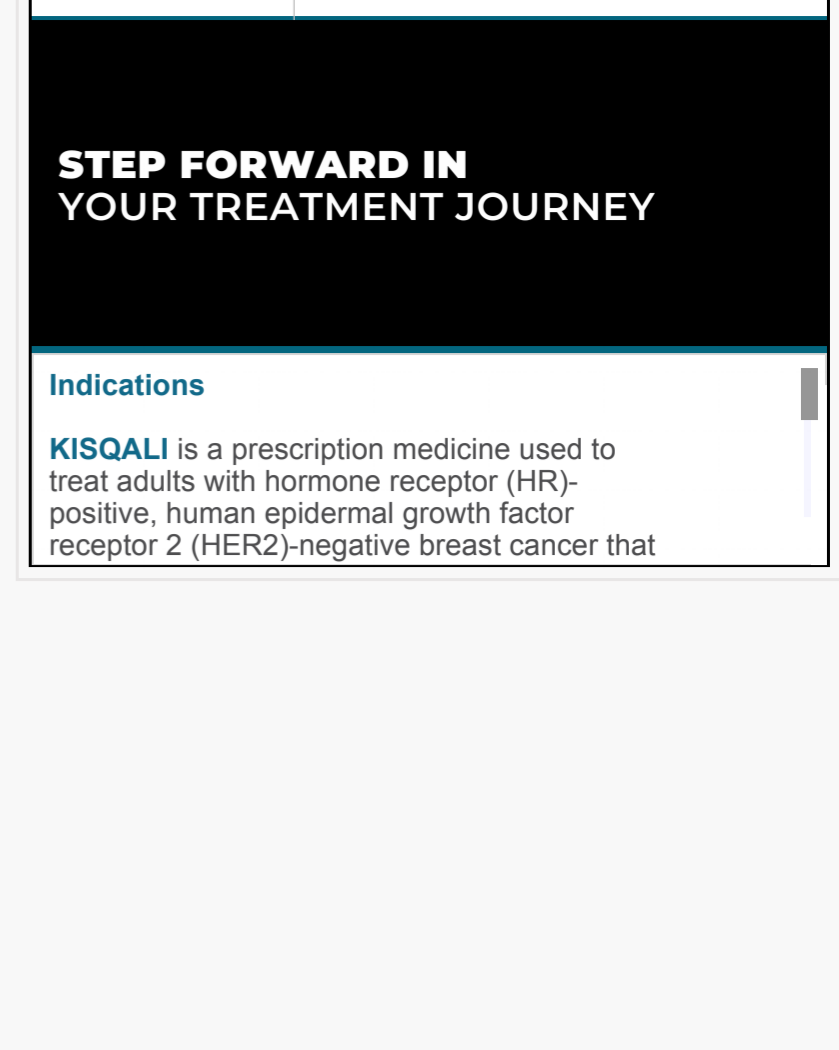
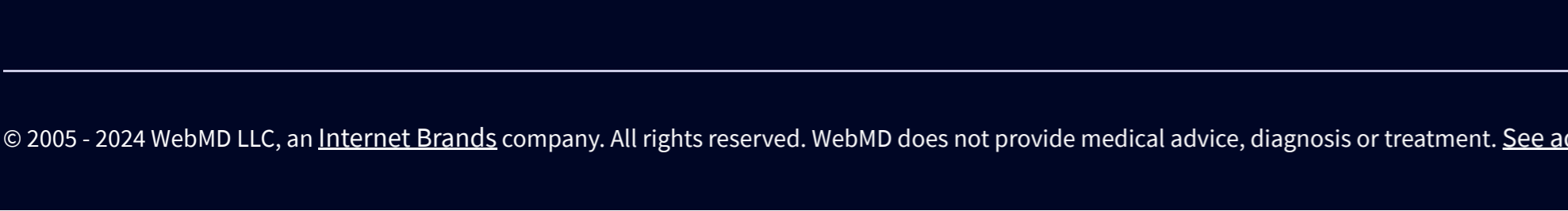
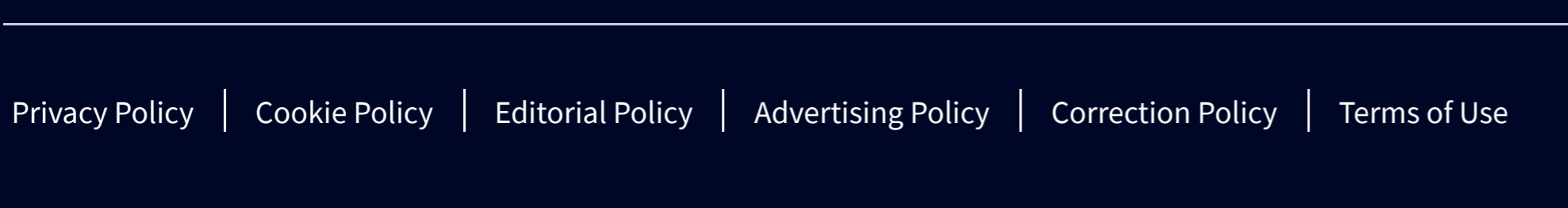
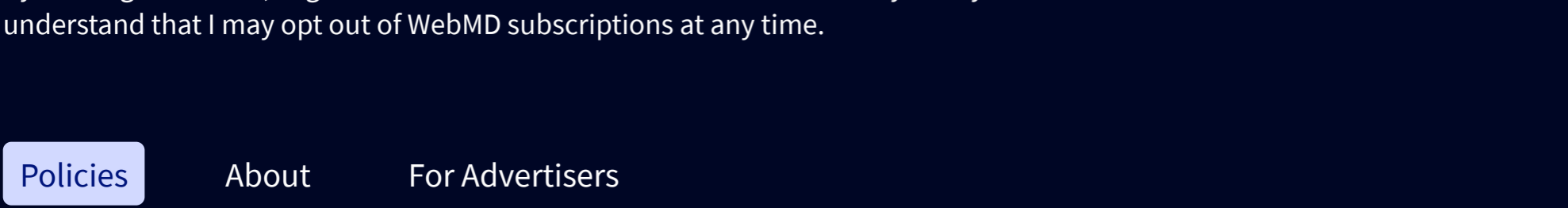
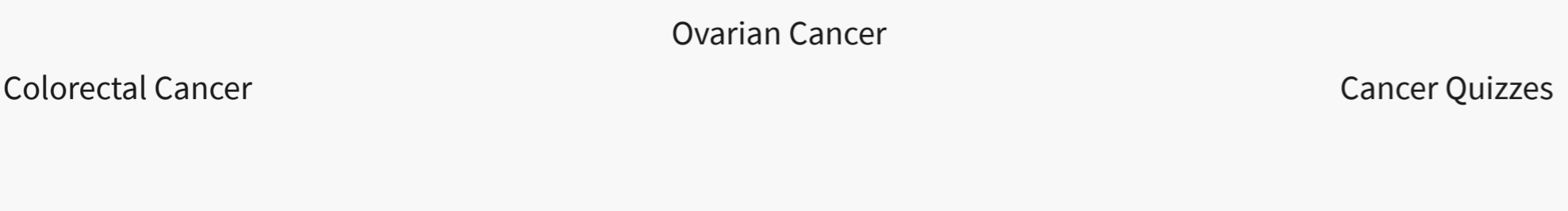
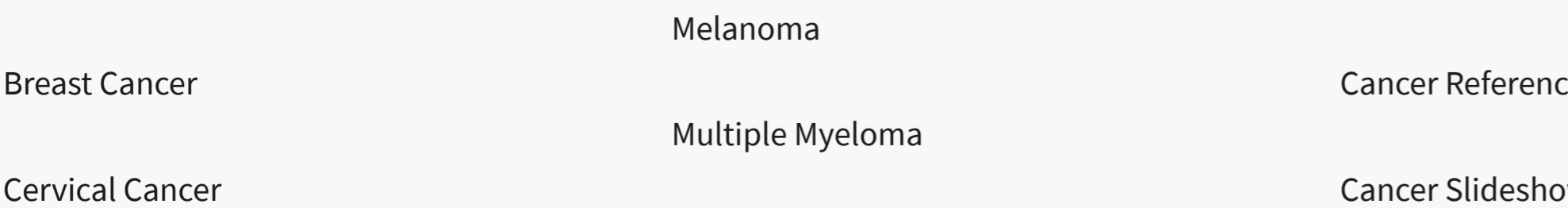
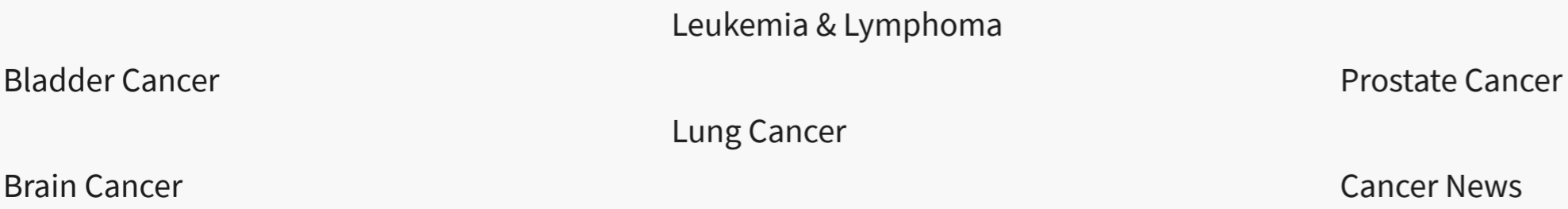
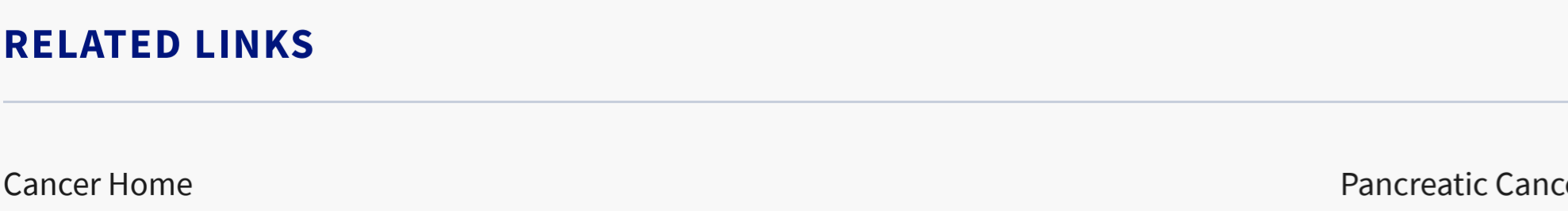
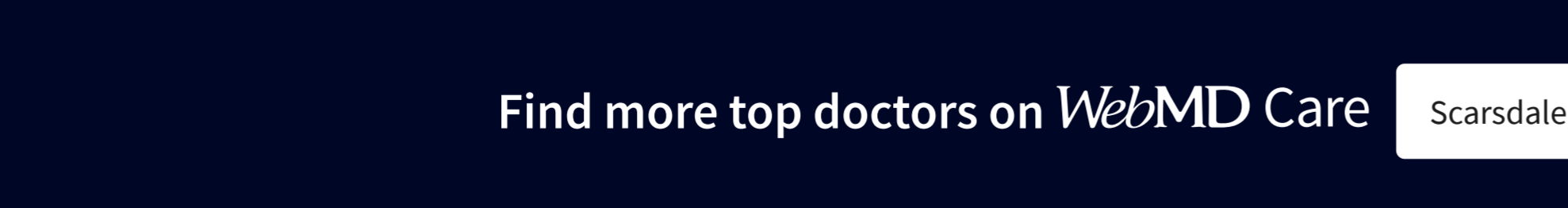
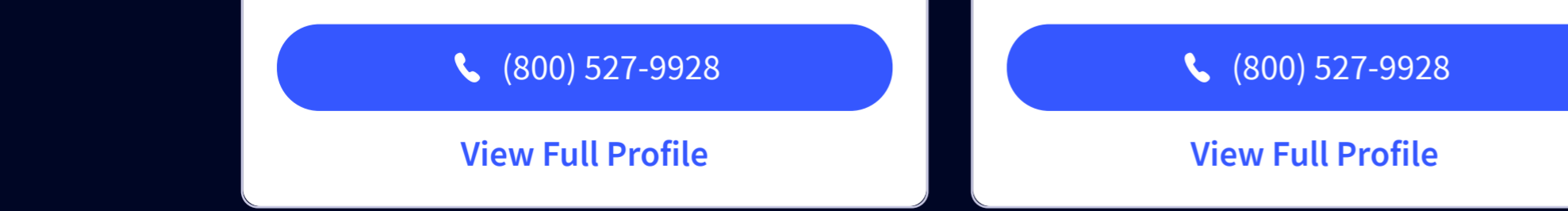
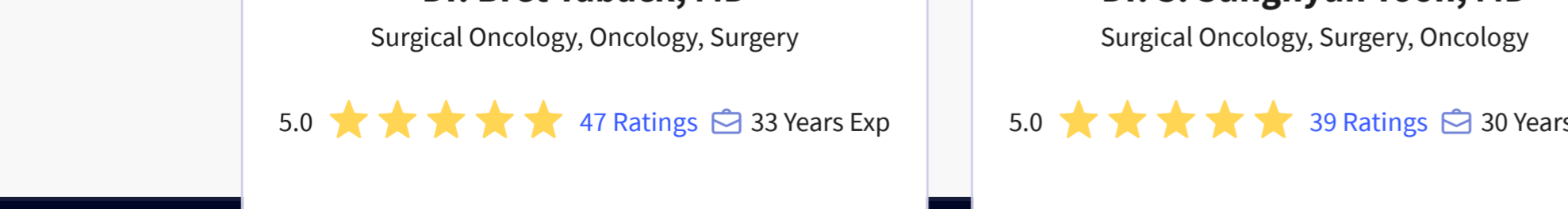
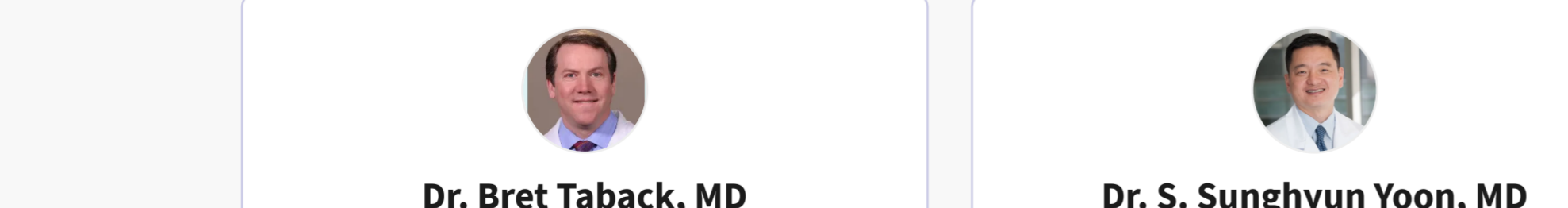
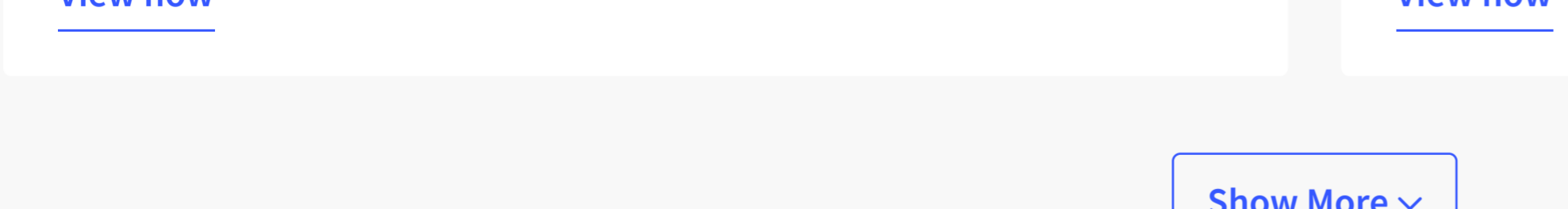
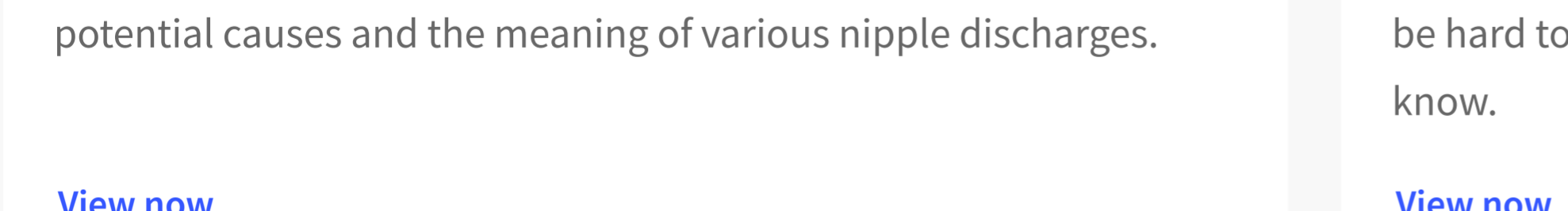
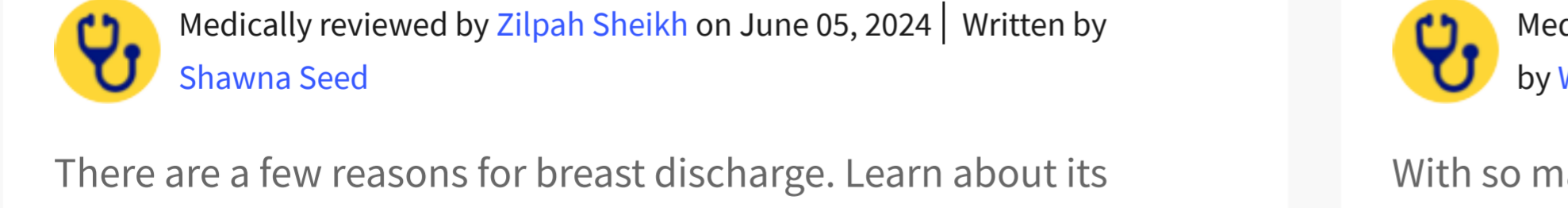
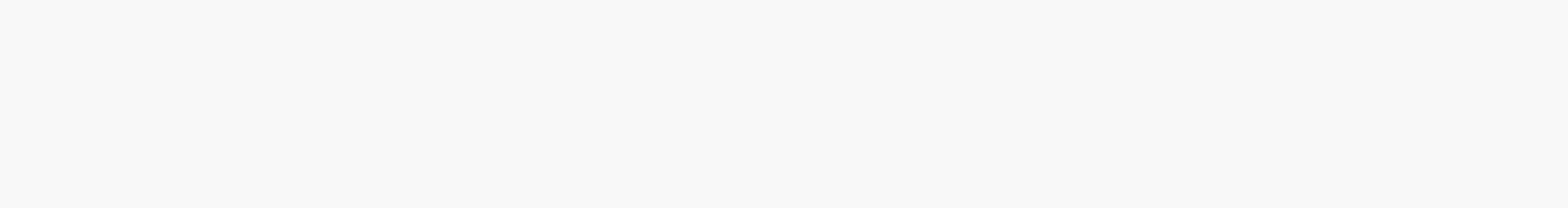
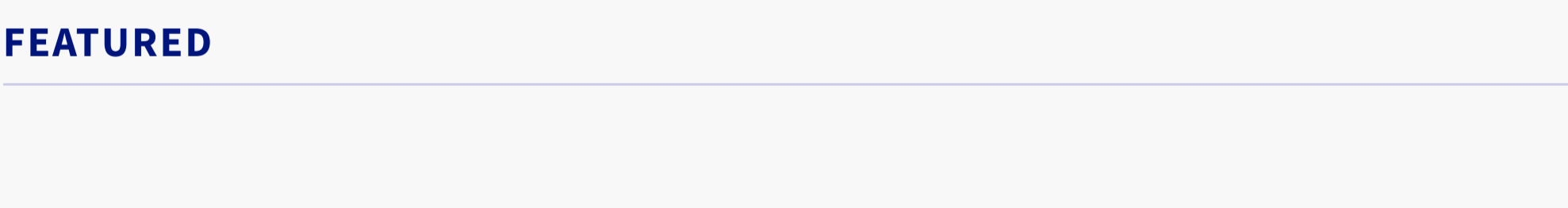
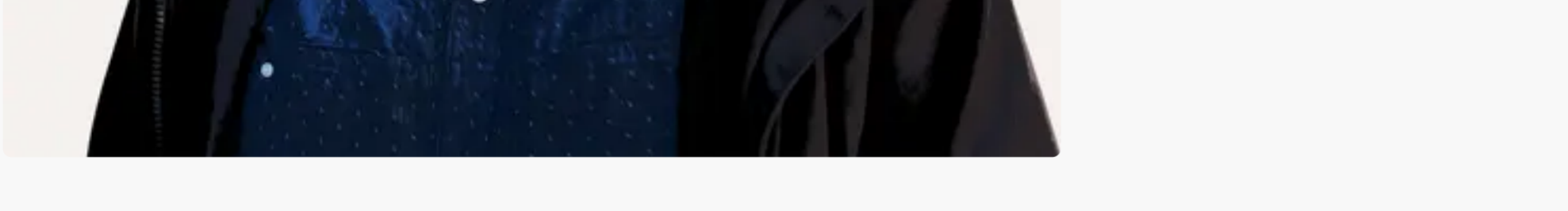
## Cost and Insurance

Aside from time, the biggest barrier for some patients is the cost of cold capping, which is covered by some, but not all, insurance plans.

Manual cold caps cost around \$400 per month to rent. Automated scalp cooling systems run about \$2,000 over the course of the treatment. For patients without insurance coverage for cold capping, there are several nonprofits, including [HairToStay](#), the [Rapunzel Project](#), and the [Cold Capital Fund](#) (in Virginia, Maryland, and Washington, D.C.) that may provide grants or other assistance.

To improve chances of keeping more hair, patients should wash their hair less frequently, avoid heated styling, and use a wide-tooth comb. If hair loss is a concern and a doctor does not mention it, patients should bring it up.

"We recognize that cancer patients want to feel as normal as possible during this process, and a lot of that is about how we look and how we appear to other people," McGuinness says. "And hair, especially for women, is a big part of that. If it's a priority for you, it should be a priority for your care team as well."



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