

What is Central Centrifugal Cicatricial (Scarring) Alopecia (CCCA)?

CCCA is hair loss of the scalp caused by scar tissue that destroys hair follicles. It most commonly involves the crown of the scalp but may also affect the sides and back of the scalp.

- **Early Stage:** Hair may not grow as quickly compared to the normal scalp. Hair texture may change becoming finer or more coarse, brittle, and difficult to style. You may notice mild thinning and the scalp becomes more noticeable.
- **Moderate Stage:** Increased scar tissue is present. Patchy hair loss is noticed and with smooth areas seen on the scalp. It becomes more difficult to camouflage the area of hair loss.
- **Severe Stage:** The affected area is completely smooth and the majority of the hair follicles are destroyed by scar tissue.

Once CCCA starts, it is chronic and progressive. The involved area starts small and then grows outward to affect the majority of the crown. In most cases, it takes years to transition from the mild to severe stage. There are cases when the condition can progress in a matter of weeks to months. Symptoms may include pain, tenderness, itching, bumps, or there may not be any symptoms other than hair loss. There is not a cure for CCCA. However, there are multiple treatment options to slow down the hair loss. In the early and moderate stages of CCCA, treatment is more effective. In the severe stages of CCCA, the goal of treatment is to prevent additional hair loss. The chances of full regrowth in the severe stage are slim.

What causes CCCA?

Research has shown that CCCA has a genetic component. CCCA may affect women within the same family. It is more commonly seen in individuals who have keloids and fibroids. One study also demonstrated that those with diabetes may have a higher risk of developing CCCA. Other associations include tight and/or heavy hair styles such as weaves, cornrows, tight ponytails, and locks. Any styling that damages the scalp can help promote additional hair loss. Active research is currently being done to determine additional causes of CCCA. This condition has become extremely common. It affects mostly women of African descent but may also affect men and people of other ethnicities.

How is CCCA diagnosed?

The most common way to diagnose CCCA is by a clinical exam where your scalp is evaluated visually and with dermoscopy and even with computer assisted visualization. A scalp biopsy may be done. The procedure for a scalp biopsy is:

1. Numb the area with lidocaine.
2. Take a piece of the scalp using a device that looks like a tiny cookie cutter.
3. Close the biopsy site with stitches.
4. The stitches are removed in 10-14 days.

A scalp fungal or bacterial culture may also be taken. Blood work may be done to detect other causes of hair loss such as thyroid dysfunction, autoimmune disorders, and anemia. At times, an individual may be experiencing multiple forms of hair loss simultaneously. Other causes of hair loss include androgenetic alopecia, traction alopecia, alopecia areata, telogen effluvium, frontal fibrosing alopecia, lichen planopilaris, dissecting cellulitis, and folliculitis decalvans.

Is there a cure?

No, there is not a cure for CCCA.

What is the treatment for CCCA?

The goal of treatment is to reduce inflammation surrounding the hair follicles. If caught in the early stages, there is an increased chance of regrowing the hair. If the hair loss and scar tissue is more moderate to severe, the goal of treatment is to keep the hair that has not fallen out and to reduce the formation of additional scar tissue. Should you decide to start a treatment regimen, you will need to continue to maintain your results. If you do not continue treatment or opt not to start treatment, then the scar tissue will continue to spread and destroy additional hair follicles. Unfortunately, a small number of people will fail treatment and the hair loss will continue.

Overall wellness which includes stress management, adequate sleep, healthy diet, and exercise cannot be overlooked. Minimize foods that contribute to inflammation. This includes sugar, dairy, and processed foods. Medical treatment includes cortisone injections to the involved area. Injections are performed every 4-6 weeks for about 6 months and then quarterly thereafter to help reduce inflammation and then keep it under control. Also, a topical compound with minoxidil and a corticosteroid will be prescribed to be used daily. Minoxidil may also be taken orally. Minoxidil pushes the hair follicles into the growing phase and also makes the actual hair diameter larger. If there is severe scalp pain, then an oral antibiotic may also be prescribed.

Platelet Rich Plasma (PRP) uses platelets from your blood that release growth factors to promote healing and hair regrowth. With this procedure, your blood is taken and is processed to concentrate your platelets to create platelet rich plasma or PRP. The PRP is then injected into the area of hair loss. Improvement may be seen 3-6 months after treatment. A series of 3 treatments is needed about 1 month apart with a maintenance treatment every 6-12 months. You are not a good candidate for PRP if you have an autoimmune disorder, uncontrolled thyroid disease, and uncontrolled diabetes. Medications and supplements that affects platelet function should be avoided at least 3 weeks prior to treatment and during the 3 month regimen. Examples include blood thinners, aspirin, NSAIDS, ginkgo biloba, St. John's Wort, high doses of vitamin E and turmeric. If you are not able to stop any of these medications or supplements, then you are not a good PRP candidate.

Another innovative treatment includes Keralase laser, in which a laser is used to create microchannels into the scalp. Growth factors are then poured into these microchannels. The goal of this treatment is to increase blood flow to hair follicles and to surround the follicles in a nutrient rich environment. Six treatments are needed spaced 2-4 weeks apart. Improvement is noticed 3-6 months after therapy. With this option, there are not any injections. The laser feels like a mild to an intense tingle. Keralase laser is a better option if you must remain on your blood thinners, NSAIDS and the above mentioned supplements. For this treatment, you must come with the hair washed and dried. Do not apply any products to the hair. The area to be treated must not be braided so that the laser can glide easily. You may wash your hair 24 hours after treatment.

Newer stem cell options still in the research phase include exosomes and therapy with Wharton's Jelly. If it is determined that the CCCA is stable after years of treatment, some may be a candidate for a hair transplant. Hair transplant is a last resort and the candidate must be chosen carefully. There is a risk for CCCA to reactivate after a hair transplant. Therefore, the risks/benefit of a hair transplant must be weighed carefully.

Medical grade hair vitamins such as Nutrafol and Viviscal Pro also help to support the health of the hair follicles. Avoid over the counter skin, hair, and nail vitamins with mega doses of biotin. Biotin by itself does not regrow hair, unless you have a rare biotin deficiency. Mega doses of biotin can affect your blood work making it more difficult to detect a heart attack or to diagnose thyroid dysfunction. If you are on prescription blood thinners, then avoid Nutrafol. If you are allergic to shellfish, then you are not a candidate for these

vitamins. Nutrafol dosing is 4 capsules daily while Viviscal dosing is 2 pills per day. Be sure to take with food and water to avoid an upset stomach and constipation.

As for styling, avoid tight and heavy styles. This includes, tight weaves, cornrows, braids, ponytails, and locks. Think “tight is not right”. Avoid using adhesives to the scalp. When you come in the office for treatment, be sure that the scalp can be seen through your hair style.

When should I start to see improvement of my hair loss?

It may take six months to one year to see results. Unfortunately, there are not any guarantees that all your hair can be regrown.

Cicatricial Alopecia Research International is a great organization to join for both information and support.
www.carfintl.org