



**United Lincolnshire
Teaching Hospitals**
NHS Trust

Scalp Cooling – a guide for patients

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Chemotherapy induced alopecia (hair loss) is widely documented as a cause of great upset to both female and male patients undergoing treatment for cancer. Although not all chemotherapy drugs cause alopecia it is the initial stereotypical thought that the hair will fall out. This has been the single reason that patients have refused to partake in treatment regimens because the psychological impact would be too great to bear.

Chemotherapy drugs are powerful and attack rapidly growing cells with hair follicles being one of them. The hair will usually start to fall out approximately 2 to 4 weeks following the first treatment. Not all chemotherapy drugs cause alopecia and the severity of the hair loss depends on the drug being given. Some patients may lose all of their hair whilst others it becomes patchy or thin. The hair can fall out all at once or it can be gradual. Some patients have explained that the scalp becomes tender before the hair comes away.

Treatment for this type of alopecia is limited and patients are always given the choice to obtain a wig, scarves or hats.

A procedure used to help prevent hair loss to the scalp can be scalp cooling. This is the application of a cold cap to the scalp. This is applied on every treatment day for a period of time before the treatment begins, during the treatment and for some time after the treatment.

We can discuss the use of the scalp cooling using a refrigerated cooling machine. A machine pumps liquid coolant through a cap while you are wearing it. This reduces the temperature of the scalp, restricting the blood supply and protecting the hair follicles. While the cap is in place you sit next to the machine; you can be disconnected if you need to go to the toilet. Your treatment nurse will disconnect you. You remain connected to the machine and cooling cap for a period of time before your treatment starts, during the time of your treatment and for a period of time after. Depending on the chemotherapy drugs you are receiving will depend on how long your cooling time is. Should you decide to use the scalp cooling procedure, your nurse will explain this in more detail with you.

Not all drugs/regimens cause alopecia so the clinician will advise if this will affect you and whether you are eligible for the scalp cooling procedure.

What to expect on day of infusion

The time attached to the scalp cooling machine is determined by the chemotherapy drug being infused. There is always a 30 minute pre-infusion cooling period (this can be increased up to 45 minutes for thick or afro hair) and up to 1 hour 30 minutes post-infusion cooling period.

Examples of drugs where scalp cooling is commonly used:

Weekly Paclitaxel – 30 minutes pre-cooling – 1 hour infusion – 60 minutes post-cooling

Docetaxel – 30 minutes pre-cooling – 60 minutes infusion – 20 minutes post-cooling

All other alopecia inducing drugs or combinations of drugs – 30 minutes pre-cooling – length of infusion – 90 minutes post-cooling

During the 30 minutes pre-infusion cooling, the cap cannot be removed. If you need to go to the toilet during this period, the 30 minutes will need to be re-started. Please ensure you use the toilet prior to the cooling commencing.

If your treatment is being administered via a cannula, this will need to be inserted prior to the cooling commencing. This is because, once the cooling process commences, it can make your veins constrict to try and retain heat in the body, making the cannulation process harder to achieve. If you have a Central Venous Access Device in situ, this can be accessed at any time.

You may experience some pain in the forehead during the cooling period - using a stretchy fabric hairband can help to lessen this.

The first 10 to 15 minutes of the pre-cooling can be painful - some patients recommend taking mild painkillers prior to attending to help with this. They also recommend a distraction like music or a film to help (free patient Wi-Fi is available on the unit).

The cap comes in 3 sizes - small, medium and large. The nurse will help you to determine the best fitting cap and document the size in your notes.

Once the fluid filled cap is positioned onto your head the outer cap is then fitted. This may be the same size as the inner cap or it may need to be smaller to really ensure that the fit is snug.

The cap is then tightened under the chin using a chin strap. This can be loosened once the cap is correctly fitted.

What to bring with you on the day of your treatment and scalp cooling

- A small spray bottle - water can be added so you can dampen your hair prior to cooling
- A hair conditioner of your choice that can be left in your hair
- Comb/brush
- A soft hair band that can be used to make the cap feel more comfortable across your forehead and ears
- Head covering of your choice for use when leaving the department as you will be leaving the department with damp hair.

How you can help to prevent hair loss

For the most successful experience, the fluid-filled cap needs to touch as much of the surface of your scalp as possible. Where it does not touch it does not work.

With this in mind, remove any thick braids, a weave or hair extensions as they can prevent the scalp cooling from working effectively. It is also advisable not to have any curl-relaxing treatments.

You should not dye the hair during scalp cooling - this is because hair dye can cause scalp sensitivity during chemotherapy treatment. It can also cause damage to the hair which may make it more unmanageable. If you want to dye your hair, it is recommended that you do this prior to commencing treatment, at least a week before you begin.

When washing your hair after commencing treatment, smooth shampoo and conditioner in rather than rubbing in a circular motion as this could lead to matting.

You can use clips and headbands, but it is not recommended to apply tension to the roots. If you want to tie your hair back, it is advisable to put into a low ponytail or braid.

If you have very curly or afro type hair, it is recommended that you do not wash your hair as often as normal as this will have a drying effect on the hair. It is also recommended to use plenty of conditioner or natural oils on the hair in between treatments. However, do not use these on the day of treatment as they will make it harder to wet the hair prior to the cool cap fitting.

Haircare

Wash your hair with sulphate/paraben/colour and perfume-free shampoo and conditioner. It does not matter which brand you use for this.

You can wash your hair as frequently as you need to. It is recommended to rinse your hair within 24 hours of using the cool cap.

You should be very gentle with your hair - a cool hairdryer can be used but it is recommended that you use your fingers for drying rather than a hairbrush. It is advisable not to use any additional heat on the hair like hair straighteners or curling tongs as they can cause damage to the hair.

Additional information

If you require any additional information, this can be found at Coldcap.com (Paxmans official website). Paxman are the company that make and supply the scalp cooling machines.

Here you will be able to find video tutorials and information about the success rates for different treatments.

Macmillan Cancer Support website has further information on Scalp Cooling, hair loss and coping with hair loss. Visit <https://www.macmillan.org.uk/> for more details.

Any questions can be directed to the chemotherapy nurse at your pre-treatment consultation or on the day of treatment. You will need to confirm with the chemotherapy nurses your wish to scalp cool ahead of starting treatment so your appointment timings can reflect the need to scalp cool.

Please be aware that scalp cooling is not successful for every eligible patient.

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