



York and Scarborough
Teaching Hospitals
NHS Foundation Trust

Diphencyprone (DPC) for Alopecia

Information for patients, relatives and carers

① For more information, please contact:

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What is Diphencyprone (DPC)?

Diphencyprone (DPC) is a liquid chemical produced by produced by the Department of Organic Chemistry, University of Nijmegen in Holland.

It can be used to stimulate hair growth in Alopecia Areata (AA) when it is painted on to the scalp. DPC is used as a contact allergen, which means it works by causing an allergic (dermatitis) reaction where it touches the skin. This is believed to redirect the autoimmune attacks on the hair follicle in Alopecia, resulting in hair growth.

What is it used for?

DPC is used for the condition of Alopecia. The aim of the treatment is to first make you sensitive to the DPC, this works by initially using a higher dose to stimulate an allergic/ dermatitis reaction before then starting treatment on the scalp. This is so that when the solution is applied to your scalp, the reaction it causes helps to encourage hair growth.

How do I become sensitive to DPC and how is the treatment given?

A small amount of DPC is applied to your arm by a trained member of staff. The aim is to cause a reaction that is red and itchy, this can occur between 48 hours and eight days after it has been applied.

You are given a follow up appointment for two weeks and the area is then checked to see what kind of reaction has occurred. If there has been no reaction, we will apply the DPC again to your other arm, cover it with a dressing and check it again after two weeks. This will continue until a reaction occurs or the highest dose is reached.

What happens next?

Following successful sensitisation, treatment will commence using a very weak concentration of DPC onto a small area of the scalp.

The strength will gradually build up over time until a reaction occurs lasting between 24 and 36 hours.

Treatment is usually given weekly until hair has regrown, your consultant will then decide how to proceed and titrate frequency to wean off DPC.

What else do I need to know?

You will need to keep your scalp covered for 24 hours after treatment. It may be easier to wear a cap, hat, or scarf if a large area is being treated. Please avoid touching or washing the treatment area for 48 hours following the treatment.

Other members of your household could become sensitised to DPC also if they come into contact with it. Please avoid others touching any areas that have been treated with DPC for 48 hours post treatment or until the DPC has been washed off. Special caution should be taken in the case of pregnant women who are directly liaising with the patient.

You will be prescribed a steroid cream as part of your consultation with one of our doctors before you start your treatment; this is to be applied to reduce any more uncomfortable dermatitis reaction from the DPC treatment.

If there is no reaction to the treatment or re-growth after four months, the nurse will stop the treatment and arrange for you to see the doctor. If there are no signs of hair regrowth after 12 months, your treatment will most likely be stopped.

The chance of hair regrowth following DPC treatment largely depends on the extent of your hair loss prior to treatment and on the age that your Alopecia started.

Estimates of 50-60% of patients that receive DPC have a noticeable and worthwhile response. DPC is recommended by the British Association of Dermatologists in their guidelines for the treatment of Alopecia Areata (2012) as the best treatment for extensive Alopecia Areata.

It is advised that other chemicals are not used at the same time as your treatment with DPC e.g., photographic solutions.

Once you have been sensitised to DPC, this is for life.

DPC is not thought to cause cancer or birth defects.

Women that are pregnant or breastfeeding are not suitable for treatment, those of a child-bearing age may be asked to have a pregnancy test prior to treatment.

Women must ensure adequate contraception is used during treatment and for six months after treatment.

What are the possible side effects?

The area could become red, sore and blister. This can be controlled with the use of a topical steroid, which will be prescribed.

Lymph nodes sometimes develop in the back of the neck. These can remain throughout the treatment, disappearing after the treatment has finished.

If you have Eczema, it may worsen during treatment.

Occasionally an itchy rash called urticaria can develop for one to two days after treatment. This is usually well controlled with an antihistamine.

A rare side effect can be change of skin pigmentation. This change can be darkening of the skin called hyperpigmentation or skin lightening called hypopigmentation or even vitiligo a loss of pigment. This change can be permanent and can occur in around seven percent of patients having DPC treatment.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact Dermatology Department, The York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 726621.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website:

www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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