



PHOTOTHERAPY

What are the aims of this leaflet?

This leaflet has been written to help you understand more about phototherapy. It tells you what it is, what is involved, what the potential side effects are, and where to find out more about it.

What is phototherapy?

The term *phototherapy* literally means the use of light, especially ultraviolet light, to treat medical conditions. Natural sunlight has been known to be beneficial in certain skin disorders for thousands of years, and it is the ultraviolet part of the radiation produced by the sun that is used in phototherapy, in particular the ultraviolet A (UVA) and ultraviolet B (UVB) wavelengths.

Patients can be treated with the full UVB spectrum (broadband UVB) or just a small part (narrowband UVB). UVA treatment usually comprises UVA radiation combined with a sensitiser (a chemical that increases the effect of UVA on the skin) called a psoralen (PUVA: Psoralen + UVA). PUVA is also sometimes termed *photochemotherapy*.

How does phototherapy work?

Ultraviolet light reduces inflammation of the skin and can help in various inflammatory skin disorders. However, although it can cause skin conditions to clear, this is usually temporary and not a cure. PUVA is a more potent form of treatment, so is usually reserved for people who do not respond to UVB.

What conditions can be treated with phototherapy?

Psoriasis is the most common condition treated with ultraviolet light, although a variety of other conditions may benefit, including atopic eczema, other forms

of dermatitis, polymorphic light eruption, generalised itching, pityriasis lichenoides, cutaneous T cell lymphoma, lichen planus, vitiligo and many others that are less common (disseminated granuloma annulare, morphea, etc.).

What does phototherapy involve?

Ultraviolet treatments are usually given in a hospital outpatient department, two to five times a week, in a walk-in cabinet containing fluorescent light bulbs.

The average course lasts between 15 and 30 treatments. The starting dose is worked out either by asking how well you tan in sunlight or by performing a test dose of ultraviolet light on an area of your skin. The first few treatments will often last less than one minute, and the duration of exposure to ultraviolet light will gradually increase, up to a number of minutes.

The amount of skin exposed to the ultraviolet light will depend primarily on the extent of your condition; for most patients all of the skin is exposed to ultraviolet light, except the eyes (which will be protected by goggles) and male genitalia (which should be covered). A visor or face shield may be worn if your face is not affected by your skin condition.

PUVA treatment involves making your skin extra sensitive to UVA by means of a psoralen, which is either taken orally as tablets, 2 hours prior to each treatment session, or by the application of a solution, lotion or gel directly onto your skin (sometimes in a bath – *bath PUVA*). If a large area of skin is treated with PUVA you will be required to wear sunglasses that will prevent the exposure of your eyes to natural ultraviolet light for 24 hours from the time of psoralen use.

What reasons might prevent you having phototherapy?

- If you are unable to attend regularly for treatment.
- If you are unable to stand unaided for up to ten minutes.
- If your skin condition is made worse by natural sunlight.
- If you have xeroderma pigmentosum or lupus erythematosus.
- If you have had skin cancer.
- If you are taking a medicine which suppresses your immune system, such as ciclosporin or methotrexate.

Your doctor may decide that ultraviolet treatment is not suitable for you if you are very sensitive to sunlight, taking medicines that make you more sensitive

to sunlight or if your skin has been damaged by sunlight, sun beds or previous ultraviolet treatments. PUVA treatment may not be used if you have severe liver or kidney disease. PUVA is contraindicated (not recommended) in pregnancy.

Do I need to avoid anything whilst having phototherapy?

- Medicines that make you more sensitive to ultraviolet light. You should inform the phototherapy staff of any new medicines prescribed or purchased, including herbal preparations.
- Additional sun exposure or the use of sunbeds.
- Excessive quantities of foods such as celery, carrots, figs, citrus fruits, parsnips and parsley; these can make you more sensitive to ultraviolet light.
- Perfumed products.
- Creams, ointments and lotions other than moisturisers, unless directed by the phototherapy staff.
- Short haircuts, as they may result in burning of previously covered skin.

What are the potential side effects of phototherapy?

The short-term side effects of phototherapy include:

- Redness and discomfort (sunburn).
- Dry and itchy skin.
- Rashes – a sunlight-induced rash called polymorphic light eruption may develop whilst receiving ultraviolet light.
- Cold sores – if you are prone to these it is advisable to cover the area usually affected with sun block when having ultraviolet treatment.
- Blisters in areas of psoriasis.
- Worsening of skin disease.

Potential long-term side effects of phototherapy include:

- Premature skin ageing.
- Skin cancer (the risk of skin cancer is related to your total lifetime exposure to ultraviolet light, and other factors such as how easily you burn in the sun; the risk is higher with repeated courses of UVB and PUVA).

Other side effects: using PUVA treatment with psoralen tablets may cause nausea.

Where can I get more information about phototherapy?

You can find more information about phototherapy on the following websites:

<http://www.dermnetnz.org/procedures/narrowband-uvb.html>

<http://www.dermnetnz.org/procedures/puva.html>

<http://www.psoriasis.org/phototherapy>

For details of source materials used please contact the Clinical Standards Unit (clinicalstandards@bad.org.uk).

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: its contents, however, may occasionally differ from the advice given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

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