Photodynamic Therapy Melbourne - PDT - Me Clinic

Canonical: https://www.meclinic.com.au/face/laser-skin-rejuvenation/photo-dynamic-therapy-pdt/

Details:

Photodynamic therapy combines a light-sensitising medication, oxygen in the tissue, and a light source to destroy abnormal skin cells while largely sparing normal ones.

It is used at Me Clinic for sun-damaged skin, certain precancerous and superficial skin cancer lesions, acne and pigmentation.

PDT is a medical treatment, not a cosmetic facial. The aftercare — particularly light avoidance — is stricter than for most skin treatments, and it matters.

How it works

A photosensitising agent is applied to the skin. The most commonly used is aminolevulinic acid (ALA) , applied topically.

Abnormal and damaged cells take up and concentrate the agent more than normal cells do. When light of a specific wavelength — red or blue — is then shone on the area, the agent absorbs it and reacts with oxygen in the tissue, producing reactive oxygen species that destroy the cells holding it.

The selectivity comes from that differential uptake: the medication concentrates where the damage is, so the light destroys diseased and damaged cells rather than healthy skin.

Red light penetrates more deeply and is generally used for deeper lesions and severe acne. Blue light is more superficial and is generally used for surface lesions and mild to moderate acne.

What it is used for

Sun damage and precancerous lesions

PDT is used to treat actinic (solar) keratosis , and certain superficial skin cancers including Bowen’s disease (squamous cell carcinoma in situ) and superficial basal cell carcinoma.

An advantage in these cases is that it treats a whole field of sun-damaged skin rather than one lesion at a time — useful where there is widespread damage with multiple lesions at different stages.

This is a treatment for diagnosed lesions, not a substitute for a skin check. Any lesion should be assessed — and where appropriate biopsied — before it is treated. Not every skin cancer is suitable for PDT; invasive and deeper cancers require excision.

Acne

PDT shrinks the sebaceous (oil) glands that drive acne, reduces the bacteria involved, and reduces inflammation. Over a course of sessions this can produce fewer inflamed lesions and a more even skin texture.

Sun spots, pigmentation and skin ageing

Treating a field of sun-damaged skin also improves the appearance of pigmentation and texture in that field.

Why the diagnosis has to come first

This is the most important sentence on the page for anyone being treated for sun damage: PDT destroys the tissue it treats.

If a lesion turns out to have been something that needed removing and examining under a microscope, the opportunity to do that is gone. Nothing is left for a pathologist to assess, and nobody can then say what it was, whether it was completely treated, or whether it has come back.

So the sequence is: look, diagnose, then treat. Where a lesion is anything other than a straightforward sun spot or a clinically obvious actinic keratosis, biopsy comes before PDT.

The features that should prompt a biopsy rather than field treatment:

A lesion behaving differently from everything around it — thicker, firmer, darker or growing

Anything that bleeds, scabs and breaks down again in the same place

A sore that has not healed in a month

A pigmented lesion , which is a different assessment entirely

A lesion that has already been treated and come back

Anything a previous PDT or cream treatment did not clear — incomplete clearance is a reason to reassess, not simply to repeat

The procedure

The treatment area is gently scraped to remove dry and scaling skin, so the medication can be absorbed evenly.

The photosensitising agent is applied.

An incubation period of three to six hours follows while the agent concentrates in the target cells. This is why PDT is a longer appointment than most skin treatments.

Light is applied to the area for 5 to 45 minutes , depending on the light source and the condition. This part can be uncomfortable — stinging or burning during illumination is common and is managed with cooling and breaks.

The area is covered with a dressing.

PDT can be performed on any area a light source can reach.

Planning the day itself

The incubation period means this is a half-day at minimum, and the light avoidance starts the moment the medication goes on — not when you leave.

Clear the whole day. Three to six hours of incubation plus the light session plus getting home.

Bring something to do for the incubation, and ask whether you can leave the clinic during it. Often you cannot, or only covered.

Bring the cover-up with you: a broad-brimmed hat, sunglasses, long sleeves, and gloves if hands are treated. Dark, tightly woven fabric is better than light.

Arrange the trip home. A car, ideally driven by someone else, and go straight home — no errands, no shops with bright lighting.

Block out the following three to four days before you book, not after.

Have the aftercare supplies at home already — the ointment, a cold compress, simple pain relief, and dressings if you have been given them.

How many treatments

We usually recommend one to five treatments , ideally spaced four weeks apart . Milder treatment settings may require more sessions but generally involve a shorter healing time — a trade-off discussed at consultation.

Aftercare — this part is not optional

For a period after treatment your skin remains photosensitised. Sunlight, and even bright indoor light, can trigger a strong reaction.

Stay indoors as much as possible for the first three to four days.

Wear SPF 30+ sunscreen whenever you go outside.

Cover the treated area with a dressing or clothing for extra protection.

Wear a broad-brimmed hat if your face was treated.

Do not pick scabs or peel skin as the area heals.

Use a cold compress and simple pain relief for discomfort.

Apply a petroleum-based ointment for further relief.

Expect the treated area to look worse before it looks better: redness, swelling, crusting and peeling over roughly a week are the normal course of a treatment that has worked as intended.

What “stay indoors” actually means

This is where people come unstuck, because indoors sounds like a solved problem and it is not. Two things are worth understanding.

Window glass does not protect you. Glass blocks most UVB — the burning wavelength — but UVA and visible light pass through largely unimpeded. Photodynamic reactions are driven by visible light as much as by ultraviolet, so sitting in a sunny room, working beside a window, or being a passenger in a car is meaningful exposure, not shelter.

Sunscreen is not the main defence here either. Sunscreen filters ultraviolet; it does very little about visible light. Physical cover — fabric, a dressing, a hat, a closed curtain — is what actually works during the photosensitive period.

So, practically, for the first three to four days:

Close the curtains in the rooms you will be in, and sit away from windows.

Keep the treated area covered even indoors — a dressing, a hat, long sleeves.

Avoid bright overhead lighting , including strong LED downlights, and anything unusually bright such as a bathroom vanity light or a workshop lamp.

If you must go out, go out covered and briefly , and prefer early morning or evening.

A phone, tablet or television screen is not a problem. The concern is intensity, and screens are orders of magnitude dimmer than daylight.

Tell whoever you live with , so nobody throws open the blinds on your behalf.

Ask your clinic exactly how long your light-avoidance period is, because it varies with the agent used and the treatment. Write the end date down.

Why the reaction can cover more skin than you expected

The treated area often reacts more dramatically, and over a wider area, than people anticipate. There is a reason, and it is reassuring rather than alarming.

PDT is a field treatment . The photosensitising agent concentrates wherever abnormal cells are, and in sun-damaged skin there are usually many more of those than are visible — early changes not yet raised or rough enough to see. When the light goes on, all of them react.

So skin you thought was fine goes red and crusts. That is the treatment finding damage you could not see, which is precisely the reason for treating a field rather than spot by spot. It is also why the result at a month can be better than you expected from an area that looked unremarkable at the start.

A realistic recovery timeline

When	What is usually happening
During light exposure	Stinging or burning — often the most uncomfortable part, managed with cooling and breaks
Hours 0 to 24	Redness and swelling building; a hot, sunburnt feeling; the area may look considerably worse by evening
Days 1 to 3	Peak redness and swelling; strict light avoidance; possible weeping
Days 3 to 7	Crusting and peeling. Do not pick
Week 2	New skin, pink; crusts gone in most cases
Weeks 4 to 12	Redness settling; the honest assessment of what cleared — and whether further treatment is needed

Who this suits, and who it does not

It tends to suit: people with a field of sun damage carrying multiple actinic keratoses; certain diagnosed superficial skin cancers where excision is not the preferred option; people with acne who have not responded to other approaches; and anyone who can genuinely follow the light-avoidance period.

It tends not to suit:

Anyone with an undiagnosed lesion — assess first

Invasive or deeper skin cancers , which require excision

Anyone with a photosensitivity disorder , porphyria, or lupus

Anyone taking photosensitising medication — disclose everything, including antibiotics, diuretics and some anti-inflammatories

Anyone with a known allergy to the photosensitising agent

Anyone pregnant or breastfeeding

Anyone who cannot realistically stay out of light for the required period — an outdoor worker mid-summer, for instance. Rescheduling is better than going through it and undoing it

Risks

Stinging, burning or pain during light exposure — often the most uncomfortable part

Redness, swelling, crusting and peeling afterwards

A severe phototoxic reaction if the treated skin is exposed to sunlight or bright light during the photosensitive period

Blistering

Changes in pigmentation — darkening or lightening, which may persist

Scarring

Infection

Allergic or contact reaction to the photosensitising agent

Incomplete clearance of a lesion, requiring further treatment or a different approach

Recurrence

Contact us for increasing pain, spreading redness, pus or fever during healing.

Please read our information on the risks and complications of cosmetic surgery before proceeding.

Expected, versus call us, versus seek urgent care

Expected: stinging during light exposure; marked redness and swelling for a few days; weeping; crusting and peeling days 3 to 7; pink new skin from week 2; a wider area reacting than you anticipated.

Call us: pain increasing rather than settling after the first days; spreading redness or heat; pus; blistering; any area not healing by around two weeks; a lesion that has not cleared at review.

Seek urgent medical attention: fever with spreading redness, or a severe reaction after light exposure during the photosensitive period.

After it heals: this is not the end of skin checks

PDT treats the field it is applied to. It does not change the cumulative sun exposure that produced the damage, and it does not protect the skin you did not treat.

Keep having skin checks at whatever interval your doctor advises. Treated areas are checked too — recurrence happens.

Have anything that does not clear reassessed , rather than assuming another round will do it.

Daily sun protection from here on does more than any repeat treatment, and it is the only thing that changes what happens next.

Learn your own skin — a ten-minute self-check every few months finds changes between appointments.

What sits outside this

We do not treat undiagnosed lesions. Assessment, and where appropriate biopsy, comes first.

PDT is not suitable for invasive or deeper skin cancers , which require excision.

It is not a substitute for a skin check.

We do not proceed where the light-avoidance period cannot realistically be observed.

We do not promise clearance. Incomplete clearance and recurrence are both recognised outcomes.

What you should leave with

What was treated, and whether it was diagnosed clinically or by biopsy

The exact length of your light-avoidance period, with an end date written down

Written aftercare, including the indoor-light advice

What to expect day by day, including that a wider area may react

The signs to call about, and an after-hours contact

A review appointment to assess clearance

Whether a Medicare rebate applies, and what the out-of-pocket cost will be

Cost and booking

Cost depends on the number of sessions required and your individual circumstances, and is quoted at consultation. Where PDT is performed as treatment for a diagnosed skin lesion rather than for cosmetic reasons, a Medicare rebate may apply in some circumstances — your doctor will advise.

Two things worth clarifying at that point: whether your treatment is being billed as medical or cosmetic , since that determines whether any rebate is possible at all, and what the out-of-pocket cost will be per session and for the likely course . We are not a no-gap provider, so a gap applies even where a rebate exists.

As at September 2024 and including GST, a skin assessment with a nurse or aesthetician is $50 and is redeemable on products or services; a consultation with a Cosmetic Doctor is $150.

We are at 4 Burke Road, Malvern East VIC 3145, five minutes' walk from Caulfield station. Phone 1300 852 050, or use the online consultation form .

Related: laser skin rejuvenation , skin cancers , mole removal , does Medicare cover my surgery.

Individual results may vary. Any surgical or invasive procedure carries risks. Before proceeding you should seek a second opinion from an appropriately qualified health practitioner.

Common questions about photodynamic therapy

What is photodynamic therapy?

A treatment combining a light-sensitising medication, oxygen in the tissue and a light source to destroy abnormal skin cells while largely sparing normal ones.

How does it know which cells to destroy?

Abnormal and damaged cells take up and concentrate the photosensitising agent more than normal cells do, so the light destroys the cells holding it.

What is the difference between red and blue light?

Red light penetrates more deeply and is generally used for deeper lesions and severe acne. Blue light is more superficial, for surface lesions and mild to moderate acne.

What does it treat?

Actinic (solar) keratosis, certain superficial skin cancers including Bowen's disease and superficial basal cell carcinoma, acne, and the pigmentation and texture of sun-damaged skin.

What is a field treatment?

Treating a whole area of sun-damaged skin rather than one lesion at a time — useful where there is widespread damage with lesions at different stages.

Why must a lesion be diagnosed first?

Because PDT destroys the tissue it treats. If a lesion needed examining under a microscope, nothing is left for a pathologist, and nobody can say what it was or whether it was fully treated.

When should a biopsy come first?

Where a lesion behaves differently from those around it, bleeds and breaks down repeatedly, has not healed in a month, is pigmented, has recurred, or did not clear with previous treatment.

Is PDT suitable for all skin cancers?

No. Invasive and deeper cancers require excision.

Is it a substitute for a skin check?

No. It treats diagnosed lesions.

How long is the appointment?

Half a day at minimum — three to six hours of incubation, then 5 to 45 minutes of light, then getting home covered.

Does it hurt?

Stinging or burning during light exposure is common and is often the most uncomfortable part. It is managed with cooling and breaks.

How many sessions will I need?

Usually one to five, ideally four weeks apart. Milder settings may need more sessions but generally heal faster.

What does "stay indoors" actually require?

Curtains closed, sitting away from windows, the treated area covered even indoors, and avoiding bright overhead lighting — for the first three to four days.

Does window glass protect me?

No. Glass blocks most UVB but UVA and visible light pass through, and photodynamic reactions are driven by visible light too. A sunny room or a car is exposure, not shelter.

Is sunscreen enough?

No. Sunscreen filters ultraviolet and does little about visible light. Physical cover — fabric, a dressing, a hat, a closed curtain — is what works during the photosensitive period.

Can I use my phone or watch television?

Yes. Screens are orders of magnitude dimmer than daylight; the concern is intensity.

How long does the photosensitive period last?

It varies with the agent and the treatment — ask your clinic for your exact period and write the end date down.

Why is more of my skin reacting than I expected?

Because the agent concentrates wherever abnormal cells are, and sun-damaged skin usually holds many more early changes than are visible. The treatment is finding damage you could not see.

What does recovery look like?

Redness and swelling building over the first day, peaking days 1 to 3, crusting and peeling days 3 to 7, pink new skin at week 2, and settling over the following weeks.

Who should not have PDT?

Anyone with an undiagnosed lesion, invasive or deeper skin cancer, a photosensitivity disorder, porphyria or lupus, photosensitising medication, allergy to the agent, pregnancy or breastfeeding, or who cannot realistically avoid light for the required period.

What are the risks?

Pain during light exposure; redness, swelling, crusting and peeling; a severe phototoxic reaction if exposed to light during the photosensitive period; blistering; pigment change which may persist; scarring; infection; allergic reaction to the agent; incomplete clearance; and recurrence.

When should I contact us?

Increasing pain, spreading redness, pus or fever during healing; blistering; any area not healed by around two weeks; or a lesion that has not cleared at review.

Do I still need skin checks afterwards?

Yes. PDT treats the field it is applied to; it does not change your cumulative sun exposure or protect untreated skin, and recurrence happens.

Will Medicare cover it?

Where PDT treats a diagnosed skin lesion rather than being performed for cosmetic reasons, a rebate may apply in some circumstances — your doctor will advise. Ask whether your treatment is billed as medical or cosmetic, and what the out-of-pocket cost will be. We are not a no-gap provider.