Simpson Optometry

Lumenis M22 IPL Treatment Information Pack

IPL Therapy:
A drug-free, drop-free solution to Dry Eye Disease.

Dry Eye Disease (DED) is the breakdown in the normal function of the tear film on the eye.

Most people with DED have irritated, watery eyes and it sounds odd to say they have dry eyes. If you think of the condition as a breakdown in the homeostasis of the tear film, which means there's an imbalance in the chemistry of the tear film, and the tears can't perform their function, you'll understand why it's more accurate to think of it as Tear Dysfunction Syndrome. But Dry Eye Disease is a better known term so we'll use it in the rest of this information pack.

If you suffer from DED, you know all too well that it's a chronic and complex condition that can significantly reduce your quality of life. Traditionally, DED has been treated with a combination of eye drops to make the eyes feel better and medication to reduce inflammation. Most people with DED know how difficult it is to maintain compliance with drug and drop regimes. IPL is an adjunct therapy that offers a low maintenance alternative to traditional DED management.

How does IPL work?

- By sealing the flow of blood in abnormal, superficial blood vessels: IPL is natural light that is filtered to allow only a few specific wavelengths through to the area to be treated. The energy from the light is absorbed by the blood vessels that supply the eyes and reduces the inflammation in the eyelids. It's the inflammation that causes the DED.

- Photobiomodulation: IPL alters the metabolism of the oil-producing cells in the meibomian glands within the eyelids. This enhances cell growth and collagen synthesis in the cells of the meibomian glands and thus improves tissue repair.

- Energising and Liquefying Meibum: Meibum is the oil produced by the meibomian glands to lubricate and protect the eye. The energy from the IPL softens the meibum, which in turn helps reduce the risk of meibomian gland blockages and allows the glands to secrete more effectively.

- Decreasing epithelial cell damage: More meibum in the tears reduces the damage DED does to the front surface (epithelium) of the cornea. Exposed and damaged cells on the corneal epithelium cause the bulk of the eye's discomfort.

- An increase in anti-inflammatory chemicals (TGF β) in the blood and a decrease in pro-inflammatory chemicals (IL-6 and IL-17): It's unclear exactly how IPL manages to do this, but tests before and after IPL show an increase in TGF β and a decrease in IL-6 and IL-17. Both help to reduce the inflammatory cycle of DED.

- Reduction of demodex and bacteria: IPL kills demodex, a skin mite that lives in the follicle of eyelashes, and bacteria. An over-abundance of either bacteria or demodex leads to inflammation of the lids and the degradation of the tear film.

How is IPL performed?

A layer of conductive gel, the same gel that's used for ultra-sound scans, is applied to the skin of the area to be treated. Usually this is on the cheeks below the eyes, and over the nose. The gel helps to ensure the energy from the light is spread evenly across the skin. Eye pads or laser-grade metal eye shields are worn to protect the eyes during treatment and, while some people might experience mild discomfort from the flashes of bright light, there is no risk of damaging the eyes while wearing these shields or pads during IPL treatment.

It takes 4 treatments to get the full effect/best results. Each treatment session takes about 15-20 minutes and are done 2-4 weeks apart.

We'll review your progress 3 months after the 4th treatment.

It's rare for someone to need another treatment at this stage, and we charge a lower rate, $180, should it be needed.

Usually, the ongoing maintenance program is to have a single treatment every 6 months. Longer breaks between treatments might require a second treatment 2-4 weeks later, so it's best to follow the recommended treatment schedule.

Our Fees:

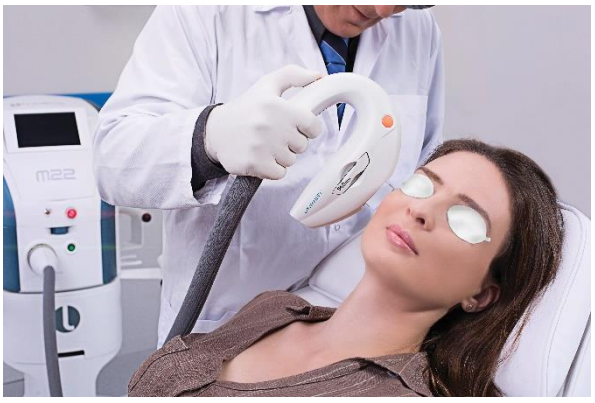
TDS Diagnostic tests: $119 (Medicare rebate of $29)

Four sessions of IPL therapy: $880 (no Medicare rebate)

Follow-up treatment sessions: $220 (no Medicare rebate)

Keep in mind:

There is unfortunately no cure for DED, only best management to give you the best quality of life. The goal of IPL is to reduce the intensity and frequency of DED discomfort, and to reduce the need for drugs and ocular lubricants (eye drops).



What to do next?

If you'd like to be assessed for DED and learn if you're suitable for IPL, please book online via our website, simpsonoptometry.com.au, or call us on 02 6162 0121 to ask for a Tear Film Assessment.

Please complete the attached Ocular Surface Disease Index Assessment and bring it to your appointment.

If you've already had a Tear Film Assessment and you are happy to proceed with IPL, please ensure you have:

- ☐ Signed the compliance checklist
- ☐ Completed the attached Fitzpatrick skin type assessment
- ☐ Completed the Ocular surface disease index assessment
- ☐ Signed the IPL consent form

IPL Pre-Treatment Compliance Checklist:

I_____confirm, prior to my IPL treatment today, the following to be true.

I have had:

- ☐ No direct exposure to sun or artificial tanning 2-4 weeks prior to treatment
- ☐ No fake tan
- ☐ No photosensitising medication
- ☐ No active infections or open lesions in the area to be treated
- ☐ No dysplastic nevi
- ☐ No significant concurrent skin conditions or any inflammatory skin conditions
- ☐ No active cold sores, open lacerations, or abrasions
- ☐ No chronic or cutaneous viral, fungal, or bacterial diseases
- ☐ No hair waxed, plucked or threaded within 4 weeks of treatment (in treatment area)
- ☐ No hair or stubble visible in the treatment area
- ☐ No adverse events related to previous IPL Therapy.

Patient Signature: _____

Witness: _____

Date: _____

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Consent for IPL Treatment of meibomian blepharitis (Dry Eye Disease)

The M22 –IPL system is used in the treatment of meibomian blepharitis (Dry Eye Disease), facial telangiectasia, erythema of rosacea, and other related skin conditions. The M22-IPL system emits brief pulses of broad light (Intense Pulsed Light, or IPL). Part of the emitted spectrum, especially UV and blue light, is blocked with a filter that is part of the device.

Treatment:

To adjust the treatment parameters to a specific patient, before treatment the physician determines the skin type, verifies that the appropriate filter is inserted in the system, and adjusts the IPL settings according to the skin type and the condition to treat. Before the treatment begins, both eyes must be protected with goggles or disposable eye patches, and a thin layer of transparent gel must be spread on the treatment area. The treatment area includes the cheeks, the nose, and the skin below the lower eyelids. The IPL energy will be delivered with a handpiece held by the physician. Before the actual treatment, the physician will perform a "test spot" to assess the skin reaction to a single IPL pulse applied in an inconspicuous area of the face (for example, below the temple). If the skin reaction is acceptable, and if the discomfort or pain is tolerable, treatment will begin. The entire treatment session should take no more than a few minutes. For optimal results, 4 treatment sessions at 3-week intervals are recommended.

During treatment, a brief sensation close to that of a rubber band snap might be felt each time an IPL pulse is delivered onto the skin. This sensation might be mild or moderate, depending on skin condition and sensitivity.

Side Effects and Complications include but are not limited to:

1. Mild sunburn feeling, including reddening or swelling of the skin, after the treatment. These effects typically disappears after 2-3 hours.
2. Bruising or Blistering, in rare cases of hypersensitive skin. These might last up to 2 weeks.
3. Permanent skin damage, such as discoloration or scarring, in rare cases when guidelines are not strictly observed (such as: incorrectly identifying the skin type, not performing a test spot, not using a transparent gel, or treating too close to the lid margins).
4. Ocular damage- If eyes are not properly protected at all times during the treatment.

Contraindications: Caution is advised for patients with a history of herpes simplex near the treatment area. Treatment might cause an outbreak of this condition. The risk of this complication can be reduced if you take prescribed antiviral medication for a few days before and after each treatment, if you have an active herpes outbreak, your appointment should be rescheduled. Other contraindications include: sun exposure 2-4 weeks prior to treatment, active infections or skin tumours in the treatment area, compromised immune system, coagulation disorders, photosensitivity or allergy, use of aspirin/anticoagulants, pregnancy, moles and tattoos.

Treatment areas should not be exposed to the sun. A broad spectrum (UVA/UVB) sunscreen of SPF 15-30 should be applied for 2 -4 weeks before and after the treatment. For optimal results, during the therapeutic period you should refrain completely from sun tanning, use of tanning beds or self-tanning products.

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M22™ IPL Treatment

***Please tick the boxes below*:**

I _____ understand:

- ☐ all of the information in this pack
- ☐ that there is a rare possibility of complications if guidelines are not strictly followed
- ☐ that there is a rare possibility of complications if contraindications are ignored
- ☐ that I might experience some pain or discomfort during the treatment
- ☐ that I might experience a feeling of mild sunburn for a few hours after the treatment
- ☐ that my eyes must be protected at all times during IPL treatment
- ☐ that sun exposure or tanning before or after IPL treatment increases the risks
- ☐ the procedure, the alternatives, the potential benefits, and the potential risks
- ☐ all the pre-care and post-care instructions
- ☐ that there is a possibility that I will not benefit from this treatment

My signature certifies that I have duly read and understood the content of this consent form, and given the accurate information as to my health condition. I authorise Simpson Optometry to perform Intense Pulsed Light therapy as they deem necessary.

Name of patient (please print)	Signature of patient	Date
Name of witness (please print)	Signature of witness	Date

Skin typing assessment quiz

Genetic predisposition						**Report Score ↓**
Score →	**0**	**1**	**2**	**3**	**4**	
What is the colour of your eyes?	Light blue, grey, green	Blue, grey or green	Blue	Dark brown	Brownish black	.....
What is the natural colour of your hair?	Sandy red	Blond	Che**s**tnut, dark blond	Dark brown	Black	.....
What is the colour of your skin (non-exposed areas)?	Reddish	Very pale	Pale with beige tint	Light brown	Dark brown	.....
Do you have freckles on non-exposed areas?	Many	Several	Few	Incidental	None	.....
					***Total score for genetic predisposition*:**	.....

Reaction to sun exposure						**Report Score ↓**
Score →	**0**	**1**	**2**	**3**	**4**	
What happens when you stay in the sun too long?	Painful redness, blistering, peeling	Blistering followed by peeling	Burns sometimes followed by peeling	Rare burns	Never had burns	.....
To what degree do you turn brown?	Hardly or not at all	Light colour tan	Reasonable tan	Tan very easy	Turn dark brown quickly	.....
Do you turn brown within several hours after sun exposure?	Never	Seldom	Sometimes	Often	Always	.....
How does your face react to the sun?	Very sensitive	Sensitive	Normal	Very resistant	Never had a problem	.....
					***Total score for reaction to sun exposure*:**	.....

Tanning habits						**Report Score ↓**
Score →	**0**	**1**	**2**	**3**	**4**	
When did you last expose your body to sun (or artificial sunlamp/self-tanning cream)?	More than 3 months ago	2-3 months ago	1-2 months ago	Less than a month ago	Less than 2 weeks ago	.....
Did you expose the area to be treated to the sun?	Never	Hardly ever	Sometimes	Often	Always	.....

***Total score for tanning habits*:** .....

***Add up the total scores for each of the three sections for your Skin Type Score*:** .....

Skin typing assessment quiz

Please Circle your skin type based on your Skin Type Score from the above quiz

↓ Skin Type Score	Skin Type	Features
0-7	I	Caucasian / freckles Always burns and never tans (pale white skin)
8-16	II	Caucasian / freckles Burns easily and tans minimally (white skin)
17-25	III	Darker Caucasian Burns moderately and tans gradually (light brown skin)
25-30	IV	Mediterranean, Asian, Hispanic Burns minimally and always tans well (moderate brown skin)
Over 30	V	Middle Eastern, Latin, light-skinned black, Indian Rarely burns and tans profusely (dark brown skin)
	VI	Never burns (deeply pigmented dark brown to black skin)

Report total skin type score:	.....	**Quiz skin type:**	.....	**Diagnosed skin type:**	.....
Has a consent form been signed? *(pls circle)*	**Yes / No**	**Has an additional pre-treatment compliance checklist been completed?** *(pls circle)*		**Yes / No**	
Assessment conducted by: *(pls print name)*	.....	**Date of assessment:**	...../...../.....		
Name of patient:	.....	**Signature of patient:** *(I attest hereby that I have answered the above to the best of my knowledge)*	.....		

Please fill out the following quiz

Ocular Surface Disease Index© (OSDI©)[2]

Ask your patient the following 12 questions, and circle the number in the box that best represents each answer. Then, fill in boxes A, B, C, D, and E according to the instructions beside each.

HAVE YOU EXPERIENCED ANY OF THE FOLLOWING *DURING THE LAST WEEK*:

	All of the time	Most of the time	Half of the time	Some of the time	None of the time
1. Eyes that are sensitive to light?	4	3	2	1	0
2. Eyes that feel gritty?	4	3	2	1	0
3. Painful or sore eyes?	4	3	2	1	0
4. Blurred vision?	4	3	2	1	0
5. Poor vision?	4	3	2	1	0

Subtotal score for answers 1 to 5 (A)

HAVE PROBLEMS WITH YOUR EYES LIMITED YOU IN PERFORMING ANY OF THE FOLLOWING *DURING THE LAST WEEK*:

	All of the time	Most of the time	Half of the time	Some of the time	None of the time	
6. Reading?	4	3	2	1	0	N/A
7. Driving at night?	4	3	2	1	0	N/A
8. Working with a computer or bank machine (ATM)?	4	3	2	1	0	N/A
9. Watching TV?	4	3	2	1	0	N/A

Subtotal score for answers 6 to 9 (B)

HAVE YOUR EYES FELT UNCOMFORTABLE IN ANY OF THE FOLLOWING SITUATIONS *DURING THE LAST WEEK*:

	All of the time	Most of the time	Half of the time	Some of the time	None of the time	
10. Windy conditions?	4	3	2	1	0	N/A
11. Places or areas with low humidity (very dry)?	4	3	2	1	0	N/A
12. Areas that are air conditioned?	4	3	2	1	0	N/A

Subtotal score for answers 10 to 12 (C)

ADD SUBTOTALS A, B, AND C TO OBTAIN D (D = SUM OF SCORES FOR ALL QUESTIONS ANSWERED) (D)

TOTAL NUMBER OF QUESTIONS ANSWERED (DO NOT INCLUDE QUESTIONS ANSWERED N/A) (E)

Please turn over the questionnaire to calculate the patient's final OSDI© score.