

Welcome to Your Light Adjustable Lens Journey

Hello,

I'm Dr. Aditya Salwan, the LAL Lead Optometrist at Lumea. Alongside Dr. Anisha Wirekoon and Dr. Pupinder Ghatorae, our team is dedicated to delivering exceptional visual outcomes with the Light Adjustable Lens (LAL).

We have developed a standardized protocol that is followed by our doctors and staff to guide patients through each stage of their LAL journey with precision and consistency.

If you're reading this, it means you've chosen the LAL for your cataract or refractive lens exchange surgery — placing you on the path to achieving your best possible vision.

The LAL Advantage

The LAL is unlike any other intraocular lens. It's the only lens that can be customized after it's implanted in your eye, allowing us to adjust your prescription once your eyes have healed. This gives you the highest chance of seeing clearly at all distances — near, far, and everything in between.

It is expected that your vision may not be perfect immediately following your surgery — and that's normal. The eyes are recovering from surgery and potential changes in vision can occur as they settle. Your LAL will be adjusted about 1 month after surgery, once your eye(s) had time to heal.

The adjustments are done using ultraviolet (UV) light, which reshapes the lens inside your eye without needing more surgery.

What to Expect in the First Month

- Vision will be blurry for near tasks. This is normal.
- You will receive UV-Protective glasses that should be worn in direct sunlight.
- You'll also get a pair of clear glasses with built-in reading power to help with daily near tasks.
- Over-the-counter readers from your optometrist may also help for activities like reading/phone/computer use.

Before We Begin Adjustments

Before your lens is adjusted, we will perform a YAG capsulotomy — a simple, painless laser procedure that cleans up the lens capsule located behind the lens in order to improve clarity and precision of adjustments. Think of it as a polish for your new lens. This is performed approximately 4 weeks following your procedure and will be scheduled by a Lumea staff member. You will be dilated at this appointment however, there are no restrictions following this laser treatment.

The Adjustment Process

- Each eye can undergo up to 3 UV light adjustments.
- After we've reached your optimal prescription, we perform 2 "lock-in" treatments to finalize your vision.
- We typically aim for a blended vision setup:
One eye (usually the non-dominant) is optimized for near vision, and the dominant eye for distance vision. Your brain will naturally blend the two for continuous vision at all ranges.

See things differently.

- The blended vision setup can be tailored to suit your individual preferences and lifestyle. While we typically aim for a blended vision setup, few patients may elect to have both eyes optimized for distance vision and opt to use glasses for reading. These preferences can be discussed with your doctor before adjustments.
- Take your time: the work we do in the clinic will last your lifetime. The time between adjustments should be used to test drive your vision in both routine and non-routine activities.

Our Goal: Minimize Your Need for Glasses

You may still need glasses for very fine near tasks that are usually performed very close to your eyes (e.g. threading a needle, or fine jewellery work), but otherwise, most patients enjoy glasses-free vision for:

- Reading, phone and tablet use
- Computer work
- Watching TV
- Driving
- Playing sports
- General day-to-day activities

Dry Eye: The #1 Roadblock to Adjustment Success

After cataract surgery, dry eyes are common and can affect your lens adjustment accuracy. Since adjustments are limited, it is vital that we only proceed when the eyes are ready for them.

We advise a strict regimen of ocular lubrication to our patients. This includes lubricating drops throughout the day and a lubricating ointment at bedtime, allowing 24-hour coverage.

We also recommend starting lubricating drops at least 1 month prior to surgery to mitigate the post-operative increase in dry eye normally seen.

Frequently Asked Questions (FAQ)

Q1: Why do I have to wait a month before adjustments?

The eyes take about 1 month to fully heal from surgery. During this time, the refractive status of the eyes can change and fluctuate depending on the healing of the eyes. It is best for the eyes to completely stabilize before we start adjustments of the lenses.

Q2: How long will I need to wear the UV protective glasses?

UV protective glasses are meant to be worn in direct sunlight from surgery to the point of final lock-in. You do not have to wear them constantly, only during exposure to direct sunlight. A simple rule to abide by: We want glass or plastic between your eyes and the sun. If you are at home and sunlight is entering through the window, you do not need to wear UV protection.

Q3: What happens during an adjustment? Does it hurt? What is the difference between the adjustment and lock-in?

The adjustment is a painless process that requires the patient to sit still and look at a blinking light. The adjustment itself can last between 30 and 120 seconds. The eye will be dilated before adjustments.

The lock-in process is similar to adjustments; the main difference is that the light being used to lock in the lens is brighter and targets the entire lens to seal the work done during the adjustments. Lock-ins are done for both eyes together. It is recommended for you to have a driver on the day of your lock-ins. You and your doctor will determine when the lenses are ready to be locked in.

Q4: What happens if I remove my UV glasses by accident?

Your lenses come with a built-in UV protective layer; however, we do not recommend completely relying on it to block out all effects of UV exposure on the lens. If you happen to remove your sunglasses in direct sunlight, the UV protective layer can handle the load, but it is always best that you wear the sunglasses to be fully protected in direct sunlight.

Q5: Will I need glasses after the process is complete?

Our goal is to make life glasses-free for 99% of your day. For the remaining 1% you may require cheaters for tasks that are extremely fine and close to your face. Otherwise, the distance from your phone and beyond will be fine.

Achieving complete independence from glasses will be determined by the visual potential of the eye itself. The potential may be limited in the presence of ocular disease or amblyopia (lazy eye). If such limitations exist, with the LAL, we can extract the full potential of your vision and adjust the eyes to make life as glasses-free as possible.

Q6: Can I drive after an adjustment?

For the adjustments, your eyes will be dilated. Driving will depend on your personal tolerance. Some patients prefer to have a driver, while others can wear sunglasses and drive home. For lock-in procedures, we recommend a driver to be with you.

Q7: What can I do to prevent delays in adjustments and maximize the results?

The main cause for delays in adjustment is dry eyes. Which is why we recommend a strict regimen of lubricating drops starting before surgery, lasting to the end of the adjustments. Other dry eye home treatments can be added to the lubricating drops. Treatments include warm compresses on the eyes, use of a humidifier in your bedroom and office, taking more frequent breaks during computer work, hydrating, and omega-3 supplements.

Q8: What if I have further questions or concerns, either pre or post-surgery?

For LAL patients, we provide an exclusive help line where any questions or concerns can be answered in a timely manner.

Q9: Is travelling ok during adjustments? Is there a time limit between adjustments?

Travelling is not only ok but encouraged during adjustments. Breaking your routine gives you a moment to truly test drive your vision and further promotes neuroadaptation of the blended vision that is being created.

There are no strict time limits on adjustments. We have had patients leave Canada for travel and come back a few months later for their adjustments. Just wear your UV protection in direct sunlight while travelling, and you will be fine.

Q10: How soon can I return to work and my normal activities during the adjustment process?

Resuming work and normal activities can occur prior to the start of the adjustments. Some workplaces require specific minimums of visual acuity to be present before work can be resumed, eg: pilots, aircraft mechanics, naval workers, etc. Such patients may require an extended leave of absence which is normally given by their respective work's medical entity. Otherwise, computer work can resume shortly after surgery. Patients that are performing manual heavy lifting work may require 2 weeks from surgery to fully heal before they can go back to strenuous work.

Final Note

The Light Adjustable Lens represents the most advanced level of vision customization available today. While it requires patience and active participation, it offers something no other lens can — the ability to refine your vision after surgery.

This is a collaborative process between you and our team. The more engaged you are by following instructions, protecting your eyes, and taking the time to “test drive” your vision, the better your final outcome will be.

Our goal is simple: to help you achieve the best vision your eyes are capable of, with the highest level of precision available today.

If you have any questions at any point, we are here to support you every step of the way.

— **Dr. Aditya Salwan**

LAL Lead Optometrist, Lumea

On behalf of Dr. Anisha Wirekoon, Dr. Pupinder Ghatorae, and the Lumea LAL Team

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