

Contact Lenses at Bay Eye Care

Before wearing contact lenses, people usually have a number of questions regarding them and what is involved with being a contact lens wearer. This sheet is designed to help answer some of these questions and may assist you in choosing which type of contact lenses best suits your individual requirements. Contact lenses are now suitable for a larger number of people due to advances in astigmatism correction and multifocal/bifocal varieties.

The common contact lens types at Bay Eye Care are:

- **Soft Disposable** - Including daily disposable and monthly replaceable lenses
- **Rigid Lenses** - Bespoke corneal lenses and scleral lenses
- **Orthokeratology (Ortho-K)**- A type of rigid lens that is only worn overnight to mold the cornea

Soft Disposable Lenses

These are the most common lenses used by patients today. They have an approximate diameter of 14mm and a large percentage of the lens is composed of water. Soft lenses are ideal for most sports, especially contact sports, as they are less likely to be lost. If they are damaged, new lenses are readily available in your multipack supply. They are generally more comfortable initially than rigid lenses, and it takes less time to adapt to wearing them, although they cannot correct some refractive conditions as effectively. There are several different types of disposable lenses (frequent replacement):

Daily Replacement (new with each use and discarded after wear)

Advantages:

- Disposables have fewer problems with deposits and inflammatory/infective problems than monthly/fortnightly lenses due to their shorter life span. Given a choice, most optometrists would prefer their patients wearing dailies for this reason!
- Dailies are very convenient as you do not need to clean or store them with solutions and can take spare lenses with you wherever you go – ideal for travel!
- The newest daily lenses are made from silicone-hydrogel materials which allow better oxygen supply to the eye and less dryness (these are slightly more expensive than standard dailies).
- If you only use your lenses occasionally, the cost is very similar to longer-term monthly lenses per day of wear.
- If a lens is lost or damaged the cost is negligible – just pop a new lens into your eye!

Disadvantages:

- Currently, a more limited range of prescriptions can be corrected with dailies. However, this range is increasing each year, and now a good portion of people with astigmatism and presbyopia (blur for reading) can be corrected with dailies.
- The cost for full time wear may be higher than monthly lenses, although often patients find the increased convenience easily justifies the difference!

Monthly Replacement (Daily wear lenses replaced monthly)

Advantages:

- Able to correct a wider range of prescriptions and higher degrees of astigmatism than daily disposables.

- Most monthly disposable lenses are made from newer-generation silicone-hydrogel materials which allow increased oxygen flow to the eye, and due to their lower water content, decreased dryness with wear.
- Suitable for intermittent wear with days away from your contact lenses if required (after consultation with your optometrist)
- Patients with presbyopia have multifocal lenses (essentially progressive contact lenses) as an option.
- Certain lenses can be available with a tint to accentuate your eye colour.
- Certain patients who would benefit from sleeping in their contact lenses without significantly compromising the health of their eyes have the option of lenses for overnight wear – after discussing this with their optometrist.
- The cost per year for lenses and solutions may be slightly cheaper than daily lenses if you wear them most days.

Disadvantages:

- Longer-use lenses are more prone to deposits and a slightly higher risk of microbial infection and inflammatory reactions than daily disposable or rigid gas permeable lenses.
- Cleaning the lenses and storage of the lenses in disinfection solution is required after each day of wear. If you travel then this solution will have to be taken with you.

Rigid Contact Lenses

Just as it sounds, rigid lenses are made from a stiff material and do not drape on the eyes like soft lenses do. Because of this, careful fitting is required. They range in size from corneal lenses of approximately 9-10mm to scleral lenses of approximately 16-17mm and more. Generally rigid lenses are reserved for extreme prescriptions or specialist fits such as *keratoconus*. *Orthokeratology* lenses are a form of these hard lenses. Bay Eye Care specialises in rigid lens fitting for and uses a cutting edge lens design software and technology to custom fit every rigid lens used in the practice.

Advantages:

- Due to the optical situation created by rigid lenses, they are able to correct larger degrees of astigmatism, extreme myopia/hyperopia, and eyes with irregular corneal surfaces including keratoconus and following corneal grafts or injury.
- Vision quality is usually better than with soft lenses.
- Good for the long-term health of the eye.
- Lenses tend to last longer (can be up to 1-2 years, but not an implied guarantee)
- Suitable for non-contact sports

Disadvantages:

- Initially less comfortable and have a longer adaptation time than soft lenses (*less of a problem with sclerals*).
- Cleaning the lenses and storage of the lenses in disinfection solution is required after each day of wear. If you travel then this solution will have to be taken with you.
- More problems with irritation from dust in smaller diameters (*less of a problem with sclerals*).
- Easier to lose due to their size and stability in the eye (*less of a problem with sclerals*).

Orthokeratology

Orthokeratology (or Ortho-K for short) is a form of vision correction that eliminates the need to wear contact lenses or spectacles to see clearly during the day. Ortho-K vision correction works by gently reshaping the centre of the cornea overnight with specially designed contact lenses. These lenses use the hydrostatic forces of your own tear-film underneath the lens to redistribute the epithelial cells on the eye's surface. Once the lenses are removed in the morning you will have clear vision without any spectacles or contact lenses. Ortho-K can treat myopia (short-sightedness), hyperopia (long-sightedness), astigmatism and even presbyopia (loss of near focus as the eyes age). The Ortho-K vision correction process is completely reversible and is one of the main treatments used to reduce the progression of myopia (short-sightedness) in children.

Advantages

- Patients can get clear vision *without* wearing corrective lenses during the day.
- Good day-time comfort for patients who are bothered by day-time contact lens wear due to ocular dryness or their lifestyle (for example cyclists, water-polo players, surfers)
- Ortho-K has been shown to reduce the progression of myopia in young patients.
- As the process is completely reversible they may be a better option for patients considering laser vision correction who are concerned about the overall cost, risk of surgery and potential for incomplete correction or post-surgical dry eyes.
- Lenses can last for up to 1 year if they are looked after and their eyes are stable, meaning costs can be lower over time.
- Some patients with low prescriptions may only need to wear their lenses every second night!
- Risk of infection has shown to be very low and comparable with extended-wear soft contact lenses.

Disadvantages

- Initially as the treatment starts to take effect there can be days where vision is not perfect. This generally only causes issues over the first week. In most patients 50% of the change of prescription occurs after the first night!
- Comfort of the lenses can take some getting used to, but as they are only worn during sleep they are generally well tolerated.
- Some patients find that the vision in the evenings can result in halos forming around lights as the pupil enlarges in the dark. This generally improves with time and if the effect is highly bothersome your optometrist can prescribe drops to improve this when required.
- If lenses are lost or broken, replacements can be costly.

Contact Lenses for Presbyopes (Eyes over 45 years)

Just because you need reading glasses or have progressive or bifocal spectacles, this does not mean you cannot wear a pair of contact lenses to adequately give you both distance and near vision! This is perfect for when you want to be able to do the things you enjoy in your life without the hassle of having to have a frame on your face. There are two primary options for presbyopic contact lens wear: multifocal contact lenses and monovision (or blended) contact lenses. Your optometrist will advise which is best for your situation.

Multifocal Contact Lenses (simultaneous vision)

With these lenses your eyes are focused for both distance and near at the same time; your brain figures out which image it needs to concentrate on and it ignores the other. In this way the eyes are working naturally together. The clarity of your vision will never be as sharp as with your spectacles due to slight 'ghosting' of images, but the majority of patients find these lenses allow them to do 90% of the visual tasks in their life with 90% of the visual quality. In various studies these lenses have been shown to offer patients better 'real-world' vision compared to monovision contact lenses. Multifocals are available in a monthly and daily modality soft lens, and can be custom designed onto rigid lenses in some cases.

Monovision Contact Lenses

In monovision one of your eyes is corrected for distance and the other is corrected for near vision. In this way the eyes do not work together as naturally; however, the visual quality of the eyes tends to be superior in the examination room compared to multifocals. Monovision also allows significant astigmatism in patients to be corrected better than multifocals. Because monovision contact lenses are no different than standard lenses, just with the powers adjusted, your habitual lenses can be used without a refit being required. Daily lenses can also be used for convenience.

Orthokeratology lenses can be designed to give distance and near vision in a manner similar to monovision, but with more of a multifocal effect than standard soft lenses.

Costs

There are many different variations in the cost of contact lenses and the solutions and consultations required to ensure they are working safely and providing clear vision.

Please enquire with us about what the various suitable contact lens options may cost for your eyes.