

Contact Lens Types Available

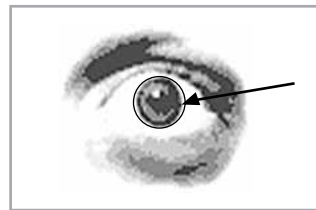
Tony Hanks, OD

Soft Contact Lenses?

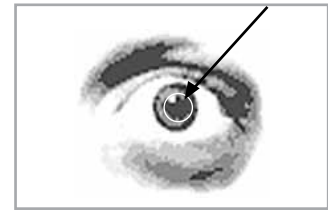
- ◆ Soft lenses are made of a unique hydrophilic plastic material which absorbs water. (Hydrophilic means "water loving").
- ◆ Soft lenses are flexible & comfortable due to their water content.
 - Standard soft lenses are 38% water (or tears, or the solution that they're in).
 - Some of the more advanced lens materials are up to 80% water.
 - Provide increasing oxygen transmission but less durability as the water content rises.
- ◆ Soft lenses are fitted at a size which is generally larger than the patient's cornea.
- ◆ Because lenses are flexible they can be turned inside out (so the patient must check they are correct way around before wearing).
- ◆ Also because they are flexible they mould to the shape of the eye without correcting astigmatism (unless special Toric designs are used).
- ◆ The lens "softness" offers several advantages:

Table:

ADVANTAGES OF SOFT CONTACT LENSES
• comfortable
• quick adaptation to wearing
• flexible wearing times
• correction of most vision problems
• simple and easy care & hygiene
• ability to change or enhance eye colour
• less likely to fall out during sport.



Soft lenses are usually larger than the cornea



Rigid lenses are usually smaller than the cornea

Rigid Contact Lenses?

- ◆ Rigid lenses have a lower water content than soft lenses.
 - However, because of the chemicals in the new gas-permeable materials they do allow oxygen to pass through for the eye's health
- ◆ Rigid contact lenses (often called "hard") are usually fitted smaller than the cornea.
- ◆ Because they are rigid, they don't distort easily and therefore can correct some astigmatism without the need for a Toric design.
- ◆ Rigid, or hard, contact lenses are less comfortable initially but do offer specific advantages for some eye and vision problems:

Table:

ADVANTAGES OF RIGID CONTACT LENSES
• able to correct some problems which cannot be treated with soft lenses
• able to correct some cases of astigmatism without requiring more expensive lens designs
• more durable
• longer life
• simple and easy to care for
• often provide better vision

Spheres or Torics?

- ◆ Standard contact lenses are "spheres" (do not correct astigmatism)
- ◆ Lenses to correct astigmatism are "Toric"

- These have a cylinder and axis (like a spectacle lens) and also a special feature to keep the contact lens stable without rotating out of position.
- Because they are more complicated and specific to the individual patient, toric lenses need to be custom made more often than spheres.

Conventional or Disposable?

◆ "Conventional" lenses...

- Are expected to last for 12 to 18 months of normal wear.
- Are sold individually.
- Usually are custom made for each individual patient.
- Require more lens care
 - usually separate solutions for cleaning, rinsing, disinfection & storage
 - more complicated & more expensive

◆ "Disposable" lenses...

- A subgroup within soft contact



Conventional lenses usually come in individual packaging

lenses, now used by most patients.



Disposable lenses are typically supplied in multi-packs

- Offer better eye health through regular lens replacement.
 - before lens ages & deposits develop on the surface.
- Are replaced regularly - eg: every day, week, 2 weeks, 1 month or 3 months.
- Can be worn for these equivalent number of times, with a lens life maximum of up to 3 times the labelled wearing time.
So, for example, a monthly lens is good for up to 30 wears, but needs to be discarded after 3 months.
- Are sold in multi-packs for each eye (usually 6-packs).
- Are mass produced as a stock item in many common Rx's.
- Have simple lens care because the deposits will be thrown away when the lens is disposed.
- Daily disposables are worn just once and discarded.
 - No solutions required since the lenses are never stored.
 - Especially popular as an occasional option for social wear or sport.

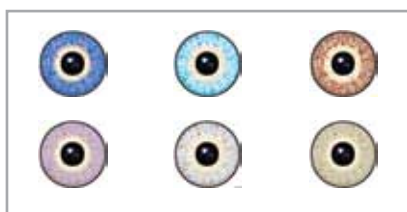
Clear or Tinted?

- ◆ Visibility tints: Few lenses are clear, most have a visibility or handling tint to make handling easier.
 - Commonly a pale blue
 - Does not change eye colour
 - Often included in the lenses at no additional charge

Table:

TINTED CONTACT LENSES
<ul style="list-style-type: none"> • VISIBILITY TINTS <ul style="list-style-type: none"> - Make it easier to see and handle the CL's - Usually a pale blue - Usually included in lenses at no extra charge.
<ul style="list-style-type: none"> • TRANSPARENT TINTS <ul style="list-style-type: none"> - Used to work with and enhance patient's own natural eye colour. eg: To make a hazel eye greener.
<ul style="list-style-type: none"> • COSMETIC TINTS <ul style="list-style-type: none"> - Used to cover and completely change patient's own eye colour. eg: To make brown eyes blue.



- ◆ Transparent tints: These work with and enhance the colour of the patients eye and still allow the natural eye detail to be seen.
 - They can make hazel eyes greener, but cannot make brown eyes blue.
eg: Focus Colors, Freshlook Dimensions, Ultraflex.
- ◆ Cosmetic tints: Opaque, so the natural eye detail & colour is no longer seen.
 - These produce the biggest changes in appearance (eg: make brown eyes blue).
eg: Freshlook Colors, Frequency Colors, Optima Colors..

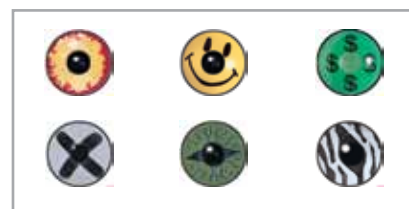


Examples of opaque cosmetic tints to change eye colour

- They are also used for special effects
eg: Crazy Eyes, Wild Eyes.

Daily or Extended Wear?

- ◆ Normal contact lens wear is "daily" - this means that they can only be worn while the patient is awake. 
- ◆ "Extended wear" lenses are made from special 



Examples of opaque tints used for novelty effects

materials that can be left on the eye during sleep. They involve more eye health risks and the optometrist must be confident that they are appropriate for the patient.

- New contact lenses are becoming available in materials and designs especially developed for extended wear. These offer up to 6 times the oxygen transmission of other contact lenses.
- When extended wear lenses are removed they must either be replaced or disinfected. (Because this is not done very often, a unit-dose care system is usually recommended).
- Important to understand that extended wear is for UP TO the number of nights stated.
eg: "Up to 7 Days Extended Wear" -or- "Up To 30 Nights Extended Wear"
 - The actual safe period will be different for different patients. Not reaching 30 nights in comfort & safety does not mean that the patient has "failed".



The Optometry Team is available from optometry association bookshops or on-line from www.hanks.optom.com.au

Excerpt Ref: 0404.1