The Ins and Outs of Specialty Contact Lens Fitting

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What defines a contact lens “fit”? 

• After the refraction...
  – Topography
  – Discuss options with patient
  – Provide trial lenses or order specialty lenses
  – Evaluate cornea/contact lens interface
    • Centration, movement, cover, fluorescein pattern
  – Evaluate vision
    • Over refraction
  – Return for follow up care
  – How long?

Is contact lens “fit” the correct term?

Topography

Kerataconus

Specular Microscopy
Why fit specialty contact lenses?

- 25% of all new fits
- Higher professional fees
- Higher material profits
- Lenses not found at online retailers or big box retailers
- Set your practice apart
- Referrals from other ODs & MDs
- Satisfaction

Higher Professional Fees

- Multiple fitting fees
  - Soft spherical fit
  - Toric soft or Monovision fit
  - Soft Multifocal fit
  - Soft Toric Multifocal fit
  - RGP spherical fit
  - Bitoric or Keratacone RGP fit
  - Multifocal RGP fit
- Does not cover medical care
- Set your fees so that you do not have to rely on the sale of materials

Why not to rely on material fees?

- 1800Contacts.com
- Contact.LensDirect.com
- VisionDirect.com
- Lensshopper.com
- Etc.
- Googled “contact lens internet sales sites”, response = 358,000

Higher Material Fees

- Toric soft lenses
- Multifocal soft lenses
- Toric multifocal lenses
- All RGP lenses

Lenses Not Found Everywhere

- Multifocal contacts
- RGP contacts
- Keratoconus contacts
- Orthokeratology contacts
- Manufacturers that do not sell to internet suppliers

Set Your Practice Apart

- Baby boomers and multifocal contacts
- Corneal molding (orthokeratology) patients
- Keratoconus and irregular cornea patients
- Dry eye patients
Referrals

• From other ODs
  – Keratoconus
  – Orthokeratology
  – RGP bifocals
• From MDs
  – Keratoplasty
  – Keratoconus

Satisfaction

• Patient tells you...
  – “you are so patient to work with me for so long”
  – “you fit me when no other doctor could”
  – “I had given up on ever wearing contact lenses again”
  – “I’m going to send all my girlfriends to you”

Different Specialty Fitting Modalities

• Rigid Gas Permeable (RGP)
  – Monovision – spherical
  – Multifocals
  – Keratoconus
  – Corneal Refractive Therapy (CRT)
  – Scleral lenses
• Soft Contact Lenses
  – Monovision
  – Toric
  – Multifocal
  – Toric Multifocal

Contact Lens Materials

• Rigid lenses
  – PMMA
  – Gas permeable
    • Silicone Acrylate
    • Fluorosilicone Acrylate
• Soft lenses
  – HEMA
  – Silicone hydrogel

Rigid Gas Permeable Contact Lens
Rigid Gas Permeable (RGP)

- Advantages
  - Almost any parameter imaginable
  - Last two to three years
  - Sharp vision
  - Spend less on solutions
- Disadvantages
  - Adaptation period longer than soft lenses
  - Can become dislodged with contact sports
  - Not the best option in dusty environments

RGP Usage

- 1980s 15%
- 1990s 10%
- 2000s 7%
- Why?

Monovision

- Been around almost 60 years
- Single vision lenses
- Dominant eye for distance
- Non dominant for near
- 2-4 weeks total adaptation
- 80% success rate
- Professions not good for

Monovision Special Cases

- Gun nuts
  - Dominant eye for front site
  - Non dominant for distant target
- Pool sharks
  - Dominant eye for end of pool cue
  - Non dominant for end of table
- Ambulance Chasers & Bean Counters
  - Dominant eye for computer distance

Monovision

Toric RGP Lenses

- Corneal astigmatism greater than 3.0 diopters and spherocylinder Rx
  - Ex: K’s 44.50/47.75 Rx: -1.50-3.25x180
- Bitoric RGP needed
  - Back surface toric/front surface toric
- Prevent corneal warpage
- Prevent fluctuation of vision
- Greater comfort
**Toric RGP Lenses**
- Spherical or low astigmatism cornea and spherocylinder Rx
  - Ex: K's 43.75/44.00 Rx: -2.50-1.75x165
- Back surface spherical base curve, front surface toric RGP
- Great for residual or lenticular astigmatism

**RGP Multifocal**
- Any parameters desired
- Two main designs
  - Segmented
  - Aspheric
- Several manufacturers
  - Truform
  - Metro
  - C & H

**Two Designs RGP Multifocals**
- Segmented
- Aspheric

**RGP Multifocal**
- Add powers
  - Aspheric = limited
    - Good for early presbyopes
  - Segmented = high
    - Better for mid to late presbyopes
- Trifocal also in segmented
  - Works well on computer (really!)

**RGP Keratoconus**
- Early cones
  - RGP aspherics
- Moderate to advanced cones
  - Need a fitting set
  - Trukone by Truform Optics
  - Rose K by Blanchard Optics
  - Metrokone by Metro Optics
- Comfort problem
  - RGP hybrid
    - Synergeyes
  - Piggyback soft lens

**RGP Keratoconic Lenses**
- Advanced Keratoconus
- Rose –K RGP lens
Synergeyes Lens

RGP center – Soft skirt

Piggyback Lens Design

For advanced Kones or sensitive corneas

RGP Orthokeratology

- Also called CRT (corneal refractive therapy)
- Alternative to refractive surgery
- Limited range
  - Sphere to -4.00
  - Cylinder to -1.00
  - Flat K between 41.00 to 45.00
- Sleep in lenses
- Schedule depends on amount of myopia
- Completely reversible

Reverse Geometric Lenses

Scleral RGP Lenses

The Most Popular Contact Lenses
Soft Contact Lens

Soft Toric Disposable Contacts
- Many manufacturers
  - B&L, Ciba, Cooper, Vistakon, etc.
- Different designs
  - Prism ballast
  - Double thin zones
- Sphere power +6 to -8
- Cylinder power -0.75, -1.25, -1.75, -2.25
- Axis 10 degree steps around clock

Soft Toric Disposable Contacts
- Higher cylinder power (up to -5.75)
  - Proclear XR,
  - Frequency XR
  - Air Optix Custom
- Axis 5 degree steps
- Sphere power +/- 20 diopters
  - Hydrasoft toric
  - Air Optix Custom

Toric Soft Contact Lens Designs

Soft Multifocal Disposable Contacts
- Several manufacturers – B&L, Ciba, Cooper & Vistakon
- Some designs better than others
- Materials
- Nothing will turn back the hands of time
- Hardest to fit
  - +0.50 to -0.50
  - Early presbyopes

Soft Multifocal Designs
Soft Multifocal Designs

- Vistakon
- Ciba PAL

Soft Toric Multifocal Disposable Contacts

- Two manufacturers
  - Cooper Vision
  - C-Vue
- Proclear Toric Multifocal
  - Two base curves (8.4 & 8.8), sphere power +/- 20.00, cylinder -0.75 to -5.75, add +1.00 to +4.00
- Success rate?

Questions?

The difference between nearsighted people and shortsighted ones is that the nearsighted can be corrected.

Anonymous