

HOW TO BE A BETTER CONTACT LENS TECHNICIAN

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TAKING A CONTACT LENS HISTORY (10 minutes)

- Motivation
- Previous lens wear
 - Problems?
 - Care System
 - Are lenses still being worn? How long each day?
- Occupation and hobbies
- Involvement in active sports
- Date of birth
- Gender
- Medical history
 - Allergies
 - Arthritis
 - Thyroid disease
- Medications
 - Antihistamines
 - Decongestants
 - Diuretics
 - Oral contraceptives
 - MAO inhibitors
- Ocular history
 - Injuries
 - Corneal abrasions
 - Recurrent erosions
 - Surgery
 - Dryness
 - Pterygium
 - Pinguecula
 - Presbyopia
 - Corneal dystrophies
 - Keratoconus

VISUAL ACUITY (3 minutes)

- Note patient's ease or difficulty in reading letters

K-READINGS OR TOPOGRAPHY (2 minutes)

- Note quality of mires

HANDLING CONTACT LENS EMERGENCIES (10 MINUTES)

● TAKE THE HISTORY

- Tell me how your eye feels.
- Is there pain, redness, swelling, discharge, etc.
- When did you first notice the symptoms?
- What solutions have you been using?
- Did you fall asleep with your lenses on or wear them longer than usual?
- Are your eyes unusually sensitive to light?
- Obtain a visual acuity
- Check lenses for damage, coating, warpage

THE ROUTINE FOLLOW-UP VISIT (10 MINUTES)

- Schedule late in day for daily wear patients
- Early in the morning for extended wear patients

THE ROUTINE FOLLOW-UP VISIT (Daily Wear)

- How many hours have you worn your lenses today?
- How many hours do you wear your lenses on a typical day?
- Are you having any problems?
- Tell me how you take care of your lenses
- What solutions are you using?
- Do you ever forget to do all the steps?
- Let me see your contact lens case
- Check visual acuity.
- Perform follow-up keratometry when indicated.

EXTENDED WEAR DAILY ROUTINE

- Instill saline or rewetting drops on awakening
- Ask yourself:
 - Do I look well?
 - Do I feel well?
 - Do I see well?
- Instill saline or rewetting drops PRN during day & at bedtime

THE EXTENDED WEAR FOLLOW-UP

- Have you experienced any of the following since your last visit:
 - Redness
 - Pain
 - Discharge
 - Unusual sensitivity to light
 - Blurred or foggy vision on awakening

HANDLING TELEPHONE SHOPPERS (3 MINUTES)

- Inquire about previous lens wear
- Problems
- Satisfaction with current lenses
- Is patient interested in refit with different type of lenses or replacements
- Stress quality of lenses and care
- Explain fitting and follow-up procedures
- Discuss fees last. Explain that they vary according to lens type, Rx, and previous lens-wearing history.

PRESCRIPTION RELEASE (12 MINUTES)

FAIRNESS TO CONTACT LENS CONSUMERS ACT (FCLCA)

- Fitting is “the process that begins after the initial eye exam & ends when a successful fit has been achieved
- Or
- In the case of a renewal Rx, ends when the prescriber determines that no change in Rx is required.”
 - Must issue Rx when fitting is complete so patients can obtain lenses from their supplier of choice whether or not Rx is requested by patient

FAIRNESS TO CONTACT LENS CONSUMERS ACT (FCLCA)

Third-Party Responsibilities

- Fill written or FAXed Rx
- Or
- Verify Rx by direct communication
 - Patient name & address
 - Base Curve, Power, Diameter
 - Quantity to be ordered
 - Date & time of patient request
 - Date & time of verification request
 - Name, FAX & Phone # of person at 3rd party seller

FAIRNESS TO CONTACT LENS CONSUMERS ACT (FCLCA)

Verification

- Prescriber must confirm Rx accuracy by direct communication with seller
- Or
- Inform seller than Rx is not correct & provide accurate Rx
 - Must give reason for invalid Rx
 - Eg: Expired

- *Non-confirmation is confirmation*
- Verification is not mandatory
- Not verifying could expose you to future malpractice
 - Expired Rx
 - Inaccurate Rx
- Establish policy to verify every Rx

FAIRNESS TO CONTACT LENS CONSUMERS ACT (FCLCA)

Prescriber Restrictions

- Always include original Rx date & expiration date
- Can limit # of boxes purchase due to upcoming expiration date

Rx Expiration

- **Minimum 1 year**
- Exceptions must involve medical judgment of prescriber re. ocular health of patient
 - Keratoconus
 - Therapeutic lenses
 - Bandage lenses
 - Recurrent infections or ulcers
- Must support short expiration dates by accurate records of medical necessity
- Files must be kept 3 years
- Must be available to FTC for inspection
- Cannot be less than interval for necessary medical exam

Substitution of Lenses

- Not generally permitted *except*:
 - CL made by same company but marketed & sold under different names
 - Colored lenses

Communication Between Prescriber & Seller

- 8 normal business hours to verify Rx accuracy or validity
- Monday-Friday 9 – 5
- (Eg: 4 PM Thursday to 4 PM Friday = 8 hrs)
- Saturday if seller knows office is open Saturday
- Must have info documented
- Must let prescriber know they have evidence that office is open Saturday

DEALING WITH THE NON-ENGLISH SPEAKING PATIENT (3 MINUTES)

- Ensure understanding
- Invite friend or relative to sit in on instruction
- Use simple care system to maximize compliance
- Have patients learn by doing and demonstrate all steps you have shown them.

DEALING WITH NO-SHOWS (2 MINUTES)

- Medico-legal aspects of failure to appear
 - Phone calls
 - Letters

RECORD KEEPING (5 MINUTES)

Flow sheets

- Original K's
- Original lenses
- All replacements dispensed and date dispensed
- Cost and method of payment
- Care system
- Cost of replacement lenses
- Date patient was called or letter sent to pick up lenses or make appointment
- Time limits for replacements

THE RECYCLED PATIENT (2 MINUTES)

- ? reduced fees for previous lens wear
- Will patient require more time than new wearer due to poor fitting, instruction, or non-compliance?

THE UNSUCCESSFUL PATIENT (3 MINUTES)

Refund policies

- Think about future referrals
- Base refund on material cost and time
- Offer reduced fee if patient is fit successfully in future

ESTABLISHING A REFERRAL NETWORK (3 MINUTES)

- CLAO, CLSA or optometric directories
- cldocs.com
- National Keratoconus Foundation
- Colleagues you have met at CL conferences
- Well-known speakers and writers

KEYS TO BUILDING A CONTACT LENS PATIENT BASE (6 MINUTES)

- Ask patients if they have ever thought about contact lenses
- Offer a complimentary trial to patients when they come in for a routine exam
- Place a sign at the reception desk indicating the availability of CL gift certificates for
- birthdays, anniversaries, graduation, Mothers' Day, Christmas or other special occasions.
- Address community groups
- Offer to speak to students or PTA groups
- Get in touch with school nurses
- Make up CL "Emergency Kits" with solutions and disposable lens cases for them to use in case of student emergencies

- Help children with school assignments or science fair projects
- Hold in-office seminars and open houses for potential lens wearers
- Present an update on new developments in lenses & solutions
- Demonstrate lens insertion & removal
- Demonstrate soft & RGP care regimens
- Hold a question-and-answer session
- Give patients handouts and brochures to take home
- Serve refreshments
- Write articles about contact lenses for your practice newsletter
- Establish a good relationship with your local newspaper editor or cable TV station
- Keep them informed of new technology in lenses & solutions
- Write press releases
- Compose an "advertorial" or open letter informing readers about new developments in the CL field
- Attend as many CL conferences as possible
- Keep up with new technology
- Interchange ideas with peers
- Learn from exhibits & exhibitors
- Read books & journals.
- Establish a reputation as a center for difficult-to-fit patients.
 - RGPs
 - Multifocals
 - Bifocals
 - High astigmatism
 - Keratoconus
 - Warped corneas
 - Ocular trauma
 - Congenital cataracts
- Maintain a wide variety of RGP trial sets
- Deal only with top-quality laboratories
- Get involved in clinical studies.
- Personalize contact lens instruction
- Gear care system to patient's age, maturity, lifestyle
- Go through how, when, and why for each step
- Make sure patients learn by doing
- Show, tell, and then watch them repeat each step. Reinforce oral instruction with written step-by-step handouts, wearing schedule, and list of recommended solutions
- Stock lenses & solutions
- Ensures that patients purchase correct solutions; minimizes incompatibilities
- Patients feel reassured that solutions purchased from doctor are not tampered with
- Patients can be updated on new lenses & solutions when they come in to shop
- Patients may be accompanied by friends who are potential patients
- Patients notice posters, brochures, or office newsletters about CL products
- Offer volume discounts on solutions
 - Families with multiple wearers

- College students stocking up
- Be generous with samples
 - Overcomes patient reluctance to buy new products
 - Patients appreciate "travel sizes."
- Demonstrate proper application of make-up
- Suggest multiple pairs of tinted lenses to coordinate with clothes and make-up.

GADGETS TO MAKE LIFE EASIER IN THE CONTACT LENS ROOM
(5 MINUTES)

- Wratten #12 or Tiffen yellow filters for fluorescein pattern enhancement in lenses with UV filters
- DMV rigid lens removers
- Manicuring equipment for trimming long or sharp nails
- Finger cots for patients with long nails that interfere with CL insertion & removal
- Rigid lens laboratory cleaners
- Deep-well screw-top cases for RGP storage
- Penlights
- Kitchen timer (for patients whose lenses are settling prior to evaluation)
- Bobby pins to keep long hair out of patients' eyes
- Mirrors (plane & magnifying; stand-mounted and hand-held)
- Thickness gauge
- Diameter gauge
- Magnifying loupe
- Self-adhesive dots
- Indelible marking pens
- Nail polish remover (to remove indelible ink)
- Reading glasses
- Glasses for applying makeup
 - Lens flips from side-to-side
 - Available from several on-line sites
- Racquetball halves
 - Demonstrate lens eversion
- Posters & model of eye
- Scrapbook or photo album
- Timely articles of interest to patients
- Pictures of GPC, fungus on lenses, corneal ulcers, acanthamoeba
- Lens scoops and plastic tweezers
- Tape measure
- Coffee filters for lint-free lens blotting
- Pliers for opening screw-top vials
- Cotton swabs and lint-free tissues
- Lint-free paper towels
- Oil-and-fragrance-free soap for hand washing
- Samples of all recommended soft and RGP care products
- Disposable lens cases

COSMETICS (8 MINUTES)

- Secret ingredients
- No strict regulation
- Harbor micro-organisms
- FDA doesn't get involved until *after problems arise*

COSMETIC PROBLEMS

- Infection/disease transfer
- Injury to cornea/lids
- Allergy
- Irritation
- Lens deposits/spoilage
- Dryness (hypertonic products)

SHARING OF EYE MAKEUP

- Conjunctivitis
- Keratitis
- Blepharitis
- Corneal Ulcers
- Chalazia

PSEUDOMONAS FOUND IN

- Skin preparations
- Facial lotions
- Suntan lotions
- Baby lotions
- Shampoos

INJURY TO CORNEA & LIDS

- Abrasions
- Lacerations
- Macerated lids
- Lash loss (eyelash curlers)
- Burns (curling irons)

PUNCTATE STAINING

- Aerosol products
- Hairspray
- Perfumes
- Deodorants

ALLERGY & PRESERVATIVE SENSITIVITY

- Mucoïd discharge
- Injection
- GPC

IRRITATION

- Clogged Meibomian glands
- Flaking of fibers
- Powder particles (mica & talc)
- Ground glass & shells
- Oily films

DRYNESS/HYPERTONIC PRODUCTS

- Blocked Meibomian glands
- Decreased tear reservoir
- Increased tear debris
- Oily film
- Crusting

LENS DEPOSITS/SPOILAGE

- Oils
- Pigment
- Discoloration
- Corneal edema from decreased O₂
- Change in fit from coating

LANOLIN SURFACE CONTAMINATION

- Used in cosmetics, soaps, skin products
- Leading cause of patient non-wetting
- Strong attraction to fluorinated GP materials
- Smearred across lens surface as patient blinks
- Creates fuzzy quality of vision
- Slightly elevated clumps of debris surrounded by large areas of thin, flat film
- Use optical hand soaps to avoid problems

PROBLEMS OF SPECIFIC COSMETICS

MASCARA

- Waterproof
- Flaking
- Lash-building fibers
- Proteinized for extra thickness
- Cause improper blink if applied too heavily
- Clog Meibomian glands if applied too heavily

EYE SHADOW

- Iridescent pigments
- Flaking

LIQUID LINERS

- Flaking
- Oils
- Medium-hard pencil is best

FACE POWDER

- Fine dust
- Blush has combined problems of eye shadow & face powder

CLEANSING CREAMS & MOISTURIZERS

- Greasy residue on skin & lashes
- Transfers from fingers to lenses
- Use baggies, finger cots to apply
- Use 4th & 5th fingers

HIGHLIGHTERS & COVER-UP

- Very oily
- Can transfer to lenses

PATIENT SYMPTOMS

- Lens awareness
- FB sensation
- Epiphora (tearing)
- Blurring
- Burning
- Itching
- Pain Grittiness
- Lens deposits

SUSPECT COSMETICS IF:

- Unexplained redness & irritation
- Soiled/damaged lenses
- Infection (suspect preservatives)
- Injury

PROBLEM AREAS

- Cosmetic formulation
- “Organic” or “Natural” doesn’t mean product is safer
- Improper use

TROUBLESHOOTING COSMETIC-RELATED PROBLEMS

Hand & Face Cleaning Products

- Soaps
- Detergents
 - Oil-based
 - Perfumed
 - Deodorant
- Lotions & Creams
 - Face
 - Hands
 - Oil-based
 - Perfumed

EYE MAKEUP

- Mascara
 - Waterproof
 - Water-resistant
 - Water-based
- Eye liner
 - Liquid
 - Pencil
- Eye Shadow
 - Frosted or iridescent
 - Cream
 - Powder
 - Glitter
- Hairspray & Other Aerosols

EYE MAKEUP REMOVER

- Petroleum products
- Oily pads
- Detergents
- Gels
- Baby oil

EYE MAKEUP CARE & MAINTENANCE

- Proper cleaning
- Correct product usage
- Proper application
- Proper order of application

ORDERING CONTACT LENSES (8 MINUTES)

CONTACT LENS TERMINOLOGY

BC (Base Curve; CPC (Central Posterior Curve) or Radius

Blend: A smoothing out of the junction(s) between the base curve and the peripheral curve(s) of a contact lens.

CN Bevel: A long, thin, front-surface bevel placed on a rigid lens to thin out the edge of a high minus lens for the purposes of providing better comfort, improving centration, and/or helping the lens to glide under a tight upper lid.

Diameter: The edge-to-edge measurement of a contact lens in millimeters

Lenticular:

- Myoflange (minus carrier)
- Hyperflange (plus carrier)

Vertex Distance (VD)

The distance between the spectacle plane (where the glasses sit) and the corneal plane (where the contact lens sits) measured at the corneal apex (roughly the center of the pupil).

In patients with spectacle prescriptions greater than ± 4.00 , the contact lens power must be adjusted for vertex distance.

Myopes require less power in a contact lens than in their glasses; hyperopes more.

Power: For high power lenses, especially high plus lenses, it is essential to know if the lens is measured in **front vertex power** (concave-side-up on the lensometer stop) or **back vertex power** (convex-side-up on the lensometer stop), as the method of measuring will make a significant difference in the effective power of the lens on the patient's eye.

- **Toric Lens:** A cylindrical lens used for the correction of astigmatism.
- **Front surface (anterior or outside) toric:** The cylindrical surface is on the outer surface of the lens.
- **Back (posterior or inside) toric:** The cylindrical surface is on the inner surface of the lens.
- **Bi-toric:** Both surfaces of the lens are cylindrical.
- **Prism Ballast:** The addition of thickness to the lower edge of a toric or high-rising lens to weight the lens and help it maintain its proper position in the eye.
- **Double slab-off (dynamic stabilization or "thin-zones" lens):** A toric soft lens designed for the correction of astigmatism in which the lens is thick across its mid-section and thinned out in the upper and lower portions.

ROUTINES IN THE CONTACT LENS ROOM (8 MINUTES)

Daily Duties

- Open Mail
- Highlight orders that have arrived in order book.
- Check powers, base curve, etc. to make sure they are as ordered.

- Clean & hydrate RGPs
- Check order form to see if patient needs appointment.
- Call patient to pick up lenses or schedule appointment.
- Record on order form with the date.
- If message is left with another person or on answering machine, note on order form with the date.
- Try to schedule appointments for new fits as early in the session as possible.
- Try to schedule pick-ups for refits at least one hour before end of session.
- When lenses are picked up or dispensed at a fitting, record parameters on flow sheet.
- Place orders toward end of day to avoid multiple shipping charges. Make sure all orders are entered in log book!
- Prepare outgoing mail, UPS, FEDEX, etc.
- Clean and disinfect all lenses that have been opened, rinse vials or RGP trial lens cases, and fill with fresh solution
- Keep bottles of solution covered between use.
- Clean magnifying loupe, lensometer, diameter gauge, and radiuscope platform with alcohol wipes after each use.
- Keep all hydrogen peroxide solutions (Clear Care, AOSept, Oxysept, etc.), dilating drops, and anesthetics away from patient areas.
- Clean mirrors, tables, and sink at end of day or as necessary during day.
- Clean lens scoops, measuring devices, etc. with alcohol wipes after each use.
- Make sure instruments are turned off at end of day.

Weekly Duties

- Check supplies of contracts, instruction sheets, etc. Make more copies if necessary
- Check supplies of disposable cases, DMV removers
- Restock lenses, list out-of-stock parameters, and check to see if they should be reordered or save foils as trials are used and send to manufacturer for replacement

Monthly Duties

- Check lens expiration dates
- Check RGP deep well lens storage cases
- Rinse out solution and replace completely if it is dry or gummy