

# Frame Delivery & Adjusting

By Jackie O'Keefe, ABOM, LDO

The greatest services you can offer the client, is a properly adjusted frame and expertise on how to care for their eyeglasses. Especially when dispensing to children as they tend to be tougher on eyeglasses. This includes how to clean, store and care for them.

## Proper ways to care for eyeglasses.

It is always smart to rinse off eyeglass lenses before wiping them dry. This is especially true after having been outdoors where particles of dirt or sand may cling to the lens surface. Rinsing with water allows the dirt particles to run off the lens without scratching. Rinsing with tepid water may not be enough to remove grease and annoying smudges. There are many liquid lens-cleaning products available that are designed for anti-fog, anti-static or specifically recommended for multi-layered anti-reflective coatings. Mild dish soap can also be used as long as it is not enriched with lotion as this can build up on the lenses. Remember to rinse them again with water to remove any soap residue. Once clean, you can dry the lenses with a micro-fiber cleaning cloth or lint free paper towels.

Before selecting the case for the eyeglasses, a full frame adjustment should be completed. Most frames come with a case provided by the manufacturer and need not be substituted, providing the eyeglasses fit inside properly. The temples should be folded before placing the eyeglasses in the case. The frames should not move or rattle in the case; a smaller case should be used. The frames should not bend when closing the case; a larger case should be used. Cases can be soft slip in type or hard. Replace the case when it becomes soiled or torn on the inside as this can cause the lenses to scratch and remain dirty. Places not to store unprotected eyeglasses? Shirt pockets, pant pockets, hand bags, backpacks, on chairs, near extreme heat, on top of your head, hooked on your shirt collar and especially not near a toddler. Using common sense and a case is the best way to store eyeglasses.

The best form of care for eyeglasses is to bring them in to the eyecare professional for periodic checks. Screws can loosen or freeze up, Zyl frames can stretch out and other preventative oversights can be addressed. Recommend two hands to put on or remove from the face as this keeps the frame in

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alignment. Always keep them in an eyeglass or a safe place when not being worn. If placed on a hard surface, position them lens side up with the temples folded. You can also position them with the temples open, upside down. You do not want the front lens surface to come in contact with any other surface. Keeping the lenses clean helps to reduce scratching and the screws should be tightened when the temples flop or loosen.

## Frame adjustments and the tools needed.

Before placing the frames on the client, they should be put in *Standard Alignment*. When the lenses are not on the same plane, they are referred to as *askew*. The front of the frame needs to be realigned and can be bent by hand using holding pliers at the bridge. Plastic frames require heat before bending. When the temples are open, the spread angle should be 90%, make equal contact when placed right side up on a flat surface and should extend horizontally when folded. Positive face form or parabolic curve (slight wrap with contour of the face) should be given. When the frame is placed on the client there should be three contact points; the bridge of the nose and the side of the head behind each ear. This is known as the Fitting Triangle.

Begin with adjusting the front of the frame. On metal frames, the nose pads need to be adjusted first. The nose pads are attached to a pad arm that is attached to the front of the frame. These are known as rocking pads due to the slight movement that is allowed when resting on the bridge of the nose. Nose Pad Pliers are used to cradle the nose pad arm assembly and help to change the angle. Needle nose pliers can also be used to adjust metal frames with tight areas. The entire nose pad should rest on the side of the nose. On Zyl frames, the bridge can be heated and rolled for a custom fit. Additionally the size of a Zyl bridge can be increased using Bridge

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**Sizing Pliers.** Apply a generous amount of heat before stretching as you enlarge the bridge size using ample pressure. Proper fitting techniques include angling or tilting the frame. **Pantoscopic Tilt**, when the bottom of the frames is angled toward the cheeks. **Orthoscopic Tilt**, when the frames have no angle. **Retrosopic Tilt**, when the bottom of the frames is angled away from the cheeks. Generally 8-14° of pantoscopic tilt is given. Using **Holding Pliers** with plastic jaws to hold the frame in one hand while angling the temples with **Angling Pliers**. These have nylon jaws to prevent the frame from becoming marred. Just raise or lower the temples to achieve the proper amount of pantoscopic tilt needed. The goal is to bring the lenses as close to the eyes as possible without making contact on the cheeks or forehead.

Continue with adjusting the temples. Zyl temples and plastic sleeved metal temples need to be heated in a sand bed or with hot air as they can crack when bent cold. Lower the temple in the sand or near the heat source and slowly move the temple in a circular motion as leaving it in the sand for too long can damage them. Make the proper bend and cool prior to checking the adjustment on the patient. The sides of the temples should not make contact with the side of the head. They should rest comfortably on top of the ear and begin to bend behind the ear. The temples should be molded to match the contour of the side of the head behind the ear. Metal earpieces that coil around the back of the ear are known as **comfort cables temples** and are usually rubber or plastic coated. A small amount of heat is needed to adjust this type of temple. Metal **comfort cables** are more difficult to adjust. They need to wrap around the back of the ear without too much pressure and are easier to bend by hand. Remember to bend the tip of the temple out slightly using **needle nose pliers** so it does not jab into the back of the ear.

Habitually check the screws on the frame to be sure they are tight. Screwdrivers are used to remove, insert and tighten screws and are available with removable heads, one Phillips head and one slotted blade. Using an **Opticians Anvil** to rest the frame on when applying pressure to tighten the screw is recommended. It is too easy to puncture fingers when tightening screws by hand. Anvils can also be used when staking and riveting a frame. A rubber coated aluminum bench block can be attached to

your work counter that also prevents the frame from slipping and reduces the risk of scratching the finish. For tightening the hex nuts on drill mounted frames, use a hex wrench to hold the hex nut in place and delicately tighten the screw on the front side of the lens with a screwdriver. Use slight tension, as you do not want to apply undue pressure to the backside of the lens. Use cutting pliers to remove the butt end of the screw and file carefully to a flush finish.

Once you have finished the adjustments, make sure the ophthalmic lenses are aligned correctly. Use **Lens Aligning Axis Pliers** to rotate the lenses if needed in metal, Zyl and cord mount frames. For metal frames, just loosen the eyewire screw and place the padded area on the back and front side of the lens and with a bit of pressure, rotate the lens either nasally or temporally. Zyl frames need to be heated before rotating and the monofilament cord on mount frames (semi rimless) can be loosened. Should the bevel in a plastic frame begin to flatten or curl, **Bevel Reforming Pliers** can be used to reform the bevel with a fair amount of heat. Just reinsert the lens by pressing the lens edge against the reformed section of the front and applying pressure on the opposite sign when popping the lens in. **Eyewire Shaping Pliers** are used for metal frames and have nylon jaws that change the bevel curvature. Always clean the eyeglasses when you have finished each adjustment and are prepared to deliver them to the patient.

### Quick Adjusting Tips

When the frame sets on the patients face and the left side of the frame front is higher, the right temple needs to be raised or the left temple lowered. This depends on the amount of pantoscopic or retrosopic tilt needed. Should the frame rest on the cheeks, both temples must be raised to decrease pantoscopic tilt or if the top of the frame front is resting against the eyebrows, bend the temples down equally to increase pantoscopic tilt. When the lenses are askew, grip the lenses and bend the bridge at two points. If the right lens is too close to the eye, bend the right endpiece in and if the right lens is farther from the eye, bend the right endpiece out. As a metal frame sits too high on the face, adjust the nose pads on the pad arm to lower and if the frame is slipping down the nose, re-angle the nose pads first and then tighten and adjust the temples.

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## Frame Delivery & Adjusting

Circle the best answer for each question and return to:  
 NYSSO, 90 State Street, Suite 1009, Albany 12207 • fax (518) 463-8656

Name: \_\_\_\_\_ License #: \_\_\_\_\_

Mailing Address \_\_\_\_\_

NYSSO Member:  Yes  No **If no, the registration fee is \$30.00; please complete the section below or the membership application on the next page:**

Method of Payment:  Check (payable to NYSSO)  Credit Card (please complete section below):

Type of Credit Card:  Visa  Mastercard Dollar Amount \_\_\_\_\_

Expiration Date: \_\_\_\_\_ Card #: \_\_\_\_\_ Signature: \_\_\_\_\_

- |   |  |  |
|---|--|--|
| 1. Where are the best places to store your eyeglasses?<br>a. Shirt pockets<br>b. Eyeglass cases<br>c. Pant pockets<br>d. None of the above                                      | 6. The right-segmented bifocal is not horizontal with the left. Do you:<br>a. Raise the left temple<br>b. Rotate the left lens with lens aligning axis pliers<br>c. Rotate the right lens with eyewire shaping pliers<br>d. Rotate the right lens with lens aligning axis pliers | 11. When an eyeglass case is not available, place the eyewear on a hard surface:<br>a. Lens side down<br>b. Lens side up<br>c. Lens side up with temples folded<br>d. Lens side up with the temples folded |
| 2. The frame sits higher on the right side. Do you:<br>a. Raise the left temple.<br>b. Raise the right temple.<br>c. Bend the right temple out.<br>d. Bend the left temple out. | 7. Before adjusting the frame on the patient you need to:<br>a. Heat the plastic frame<br>b. Decrease temple spread<br>c. Askew the front of the frame<br>d. Put the frame in standard alignment   | 12. When the lenses are not on the same plane, they are referred to as:<br>a. Alignment<br>b. Askew<br>c. Asymmetrical<br>d. Airborne  |
| 3. To angle the frame away from the cheeks:<br>a. Bend the temples out.<br>b. Bend the temples in.<br>c. Increase pantoscopic tilt<br>d. Decrease pantoscopic tilt.             | 8. Rinsing the eyeglasses with water is recommended:<br>a. Always<br>b. Never<br>c. Only with mild dish soap<br>d. Sometimes   | 13. The size of a Zyl bridge can be increased by using:<br>a. Nose pad pliers<br>b. Holding pliers<br>c. Angling pliers<br>d. Bridge sizing pliers   |
| 4. To keep the eyeglasses clean, use:<br>a. Mild dish soap<br>b. Micro-fiber cleaning cloth<br>c. Liquid lens cleaner<br>d. All of the above                                    | 9. Eyewire Shaping Pliers are used for reshaping the bevel on:<br>a. Metal frames<br>b. Plastic frames<br>c. Cord mount frames<br>d. Drill mount frames  | 14. A hex wrench can be used for:<br>a. Angling the pad arm assembly<br>b. Removing a broken screw<br>c. Tightening and holding hex nuts<br>d. Angling hex nuts  |
| 5. The best tool to use when adjusting the pad arm assembly is:<br>a. Angling pliers<br>b. Bridge sizing pliers<br>c. Nose pad pliers<br>d. Eyewire shaping pliers              | 10. To keep the frame is in place and protected with plastic jaws before bending, use:<br>a. Holding pliers<br>b. Angling pliers<br>c. Nose pad pliers<br>d. Needle nose pliers  | 15. The three fitting contact points on the patient when the eyewear is worn is known as:<br>a. Fitting Triangle<br>b. Facial Triangle<br>c. Triangular Three<br>d. Triangular Form                        |

# Membership Application

INDIVIDUAL'S NAME \_\_\_\_\_ COMPANY \_\_\_\_\_

HOME ADDRESS \_\_\_\_\_ FAX # \_\_\_\_\_

BUSINESS ADDRESS \_\_\_\_\_ EMAIL ADDRESS \_\_\_\_\_

PHONE (HOME) \_\_\_\_\_ PHONE (BUSINESS) \_\_\_\_\_

Preferred Address:  Home  Business Preferred Phone:  Home  Business

Membership Type:  Active (\$150.00)  Newly Licensed-Active (\$75.00)  Associate (\$75.00)  
*(see below for category descriptions)*  Corporate (\$150.00)  Student (~~\$150.00~~) *Waived for current membership year*

Method of Payment:  Check (payable to NYSSO)  Credit Card (please complete section below)

Type of Credit Card:  American Express  Discover  Mastercard  Visa Dollar Amount: \_\_\_\_\_

Expiration Date: \_\_\_\_\_ Card #: \_\_\_\_\_ Signature: \_\_\_\_\_ 12/05

### Voluntary Opticians PAC Contribution

(Contributions to the NYSSO Political Action Committee)

\$25.00  \$50.00  \$75.00  \$100.00  Other \_\_\_\_\_

### Membership Year is September 1-August 31.

Mail Application to: NYSSO, 90 State Street, Suite 1009, Albany, NY 12207. NYSSO Membership Services Line (518) 426-0599  
 E-mail: [nyssocaphill.com](mailto:nyssocaphill.com) • Web Page: [www.nyssso.org](http://www.nyssso.org)

To be listed accurately in the NYSSO Membership Directory, please indicate which of the following services are offered by your business:

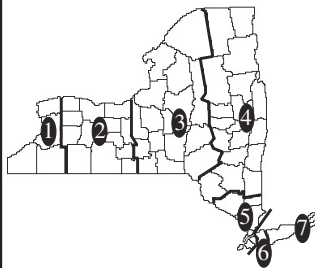
- Artificial Eyes  Contact Lenses  
 Eyeglasses  Refractions Available  
 Hearing Aids  Low Vision

### Please Complete the Following:

Region (see map) \_\_\_\_\_ Date of Birth: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 NYS License # \_\_\_\_\_ Sex:  Male  Female  
 Contact Lens Fitter # \_\_\_\_\_ Signature \_\_\_\_\_  
 Sponsor (if applicable): \_\_\_\_\_ Date \_\_\_\_\_

Please indicate to which organizations you belong:

- American Board of Opticianry Certified (ABO)  
 Fellow, National Academy of Opticianry (FNAO)  
 Opticians Association of America (OAA)  
 National Contact Lens Examiners (NCLE)  
 Contact Lens Society of America (CLSA)



- Region 1** -- Niagara, Erie, Chautauqua, Cattaraugus  
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**Region 3** -- St. Lawrence, Jefferson, Lewis, Oswego, Oneida, Herkimer, Cayuga, Onondaga, Madison, Otsego, Chenango, Cortland, Tompkins, Tioga, Broome, Delaware  
**Region 4** -- Clinton, Franklin, Essex, Hamilton, Warren, Saratoga, Washington, Fulton, Montgomery, Schenectady, Schoharie, Albany, Rensselaer, Columbia, Greene, Ulster, Sullivan, Dutchess  
**Region 5** -- Bronx, New York, Queens, Kings, Richmond, Orange, Putnam, Rockland, Westchester  
**Region 6** -- Nassau  
**Region 7** -- Suffolk

## Membership Categories

**ACTIVE MEMBERSHIP** — Annual dues of \$150.00. Any person possessing a valid New York State Ophthalmic Dispensing License is eligible to become an Active Member.

**NEWLY LICENSED MEMBERSHIP** — Annual dues of \$75.00 (first year), \$100.00 (second year), and \$150.00 (third year). Any newly licensed optician (licensed within the past six months) is eligible for the special three-year pro-rated membership incentive. Newly licensed opticians who join under the special offer will be entitled to full Active Member benefits.

**ASSOCIATE MEMBERSHIP** — Annual dues of \$75.00. Any person who does not qualify for Active membership but is supportive of opticianry shall be eligible to become an Associate Member. Associate Members are entitled to all the rights of an Active Member, except voting and may participate in all activities of this Society, unless specifically excluded by the Board of Directors.

**CORPORATE MEMBERSHIP** — Annual dues of \$150.00. Any proprietorship or corporation maintaining 51% of its licensed opticians as members of this Society and upholding the by-Laws and constitution of the Society is eligible to become a Corporate Member. Corporate Members are entitled to all rights of an Active Member, except voting and may participate in all activities of the Society, unless specifically excluded by the Board of Directors.

**STUDENT MEMBERSHIP** — Annual dues of ~~\$150.00~~. Any person who is enrolled as a student in a New York State-accredited program for Ophthalmic Dispensing is eligible to become a Student Member. Student Members are entitled to all rights of an Active Member, except voting and may participate in all activities of this Society, unless specifically excluded by the Board of Directors. *Waived for current membership year*