

The following PDF was adapted for the use of individuals in the Parkinson's support group in Larimer County.

The products shown are representative of items available for use from the market place. These are recommendations that I provide to my patients. If you have any questions or concerns about these products, please see your eye doctor for evaluation and recommendations.

The University of Colorado or UCHealth does not endorse these products.



Two Common Eye and Vision Problems Associated with Parkinsonism

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#1



Figure 1. Dry Eye (ocular surface disease) is a common issue in Parkinson's disease

Adapted from https://www.aoa.org/images/News_2019/Dryeye.jpg

Common Symptoms of Dry Eye

- Variable, blurred vision at any distance
- Burning, stinging or gritty sensation (like pebbles)
- Excessive tearing
- Generalized or localized redness of eyes
- Itching (often dryness and allergy)
- Light sensitivity



What Causes Dry Eyes?



Normal aging
Living in a dry climate
Lengthy reading time
Extensive computer use
Poor sleep habits
Prior eye surgery
Incomplete lid closure



Eyelid laxity
Diabetes
Thyroid disease
Autoimmune disease
Ocular rosacea
Reduced blink rate
Medications



Frequency of eyelid blinking may be reduced



Blink rate may drop from 16-18 times per minute to 1-2 times per minute in some Parkinson's sufferers

Figure 2. Blink rate may change in Parkinson's.

Adapted from <https://1tsip9tt643kufi0v3m1s4is-wpengine.netdna-ssl.com/wp-content/uploads/2014/08/vision-agingeyesprobs>

Many medications may cause dry eyes

- Parkinson's medications
- Antidepressants
- Sleeping pills
- Hormone replacement
- Beta-blockers and diuretics
- Gastrointestinal medications
- Chemotherapy medications
- Ibuprofen (rarely)
- Antihistamines
- Nasal decongestants
- Preserved artificial tears
- Visine, Clear Eyes



Dry Eye Can Be Managed!



Simple Ways to Help Dry Eye Symptoms



Figure 3. Installation of preservative free artificial tears.

Adapted from https://camdenhillseyecare.com/wp-content/uploads/2016/07/Services_DryEyes.jpg

- Use artificial tears (*Not Visine!*) at bedtime and in the morning, at minimum.
- Consider a gel tear or moisturizing gel at bedtime
- Humidify your living space, especially your bedroom
- Daily warm, wet compress with gentle lid massage
- Reading and computer use in shorter segments
- Think about blinking fully

Popular Artificial Tears

- Systane Ultra
- Theratears
- Soothe
- Refresh Optive
- GenTeal tears

Most of these are available preservative-free if you have allergies or sensitive eyes

Gel tears or moisture gel for bedtime use:

- GenTeal gel
- Systane gel
- Refresh Celluvisc
- Theratears Liquid Gel
- Refresh PM (very thick)



To help with artificial tear application, try something like this-



Remedic Eyedrop Guide Aid
(Amazon)



Peermax Drop Right 2 in 1 | Eye Drop
Guide + Wash Cup | Works with Most
Eye Drop Bottles (Amazon)

Other interventions for dry eye symptoms



Popular bed masks:

- Ocusoft Dry Eye Mask Premium (CVS Pharmacy)
- Tranquileyes Sleep Mask (Eye Eco, Amazon)
- Eye Seals 4.0 Hydrating Sleep Mask (Eye Eco, Amazon)
- Bausch and Lomb Thera Pearl Eye Mask –can be hot or cold (Walgreens)



Other interventions for dry eye symptoms

- Medications:
anti-inflammatory eye drops



Other interventions for dry eye symptoms



A nasal spray to improve dry eye symptoms—recent FDA approval



Treatments that target eyelids, which can be of help to dry eye complaints



Other interventions for dry eye symptoms

- Blood serum tears:
Making your own
enhanced tears



Other interventions for dry eye symptoms

➤ Meibomian gland expression



➤ Intense Pulsed Light (IPL)



Other interventions for dry eye symptoms



Figure 4. Rainy day in Seattle, Washington

Adapted from https://komonews.com/resources/media/7c22edc6-7c4d-471a-a2e7-1d34a0e565d2-151208_rainy_seattle_lg.jpg?1449617058356

Why bother with managing dry eyes?



An improved ocular surface can positively impact your ability to function every day!



- ❖ Improved clarity of vision
- ❖ Improved stamina for visual activities (*driving, reading, computer, TV, hobbies*)
- ❖ Eyes feel better (*reduced burning, tearing, itching and gritty sensation*)



#2



Typical Complaints

- I am having trouble reading
- I cannot read for very long
- I cannot focus up close
- I have to close an eye to see more clearly
- I am seeing double when I read
- I re-read the same line
- I have trouble remembering what I read
- My eyes get tired when I do near work
- I lose my place when I am reading



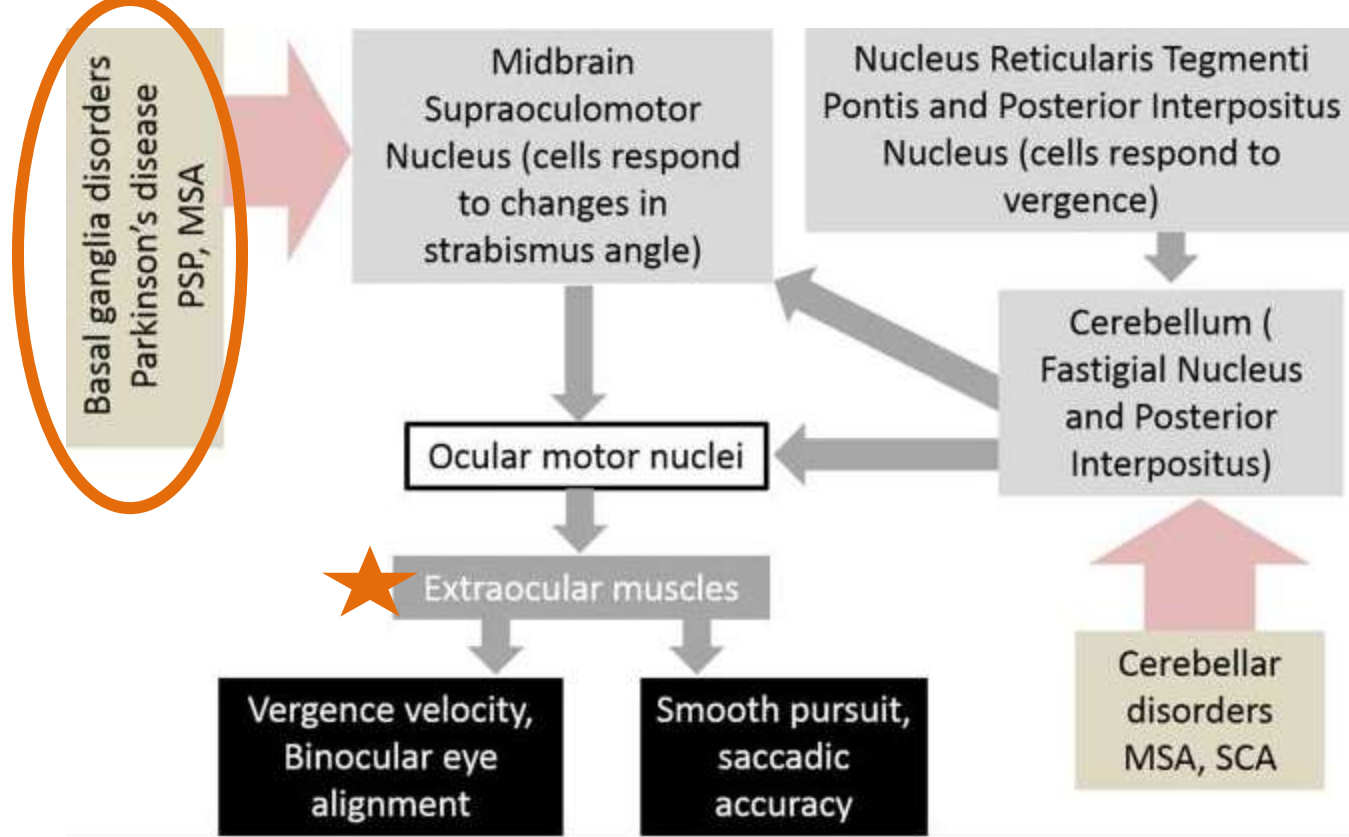


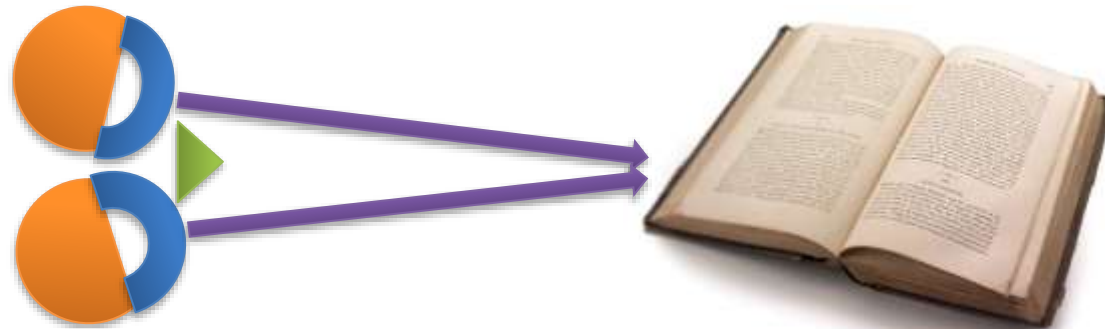
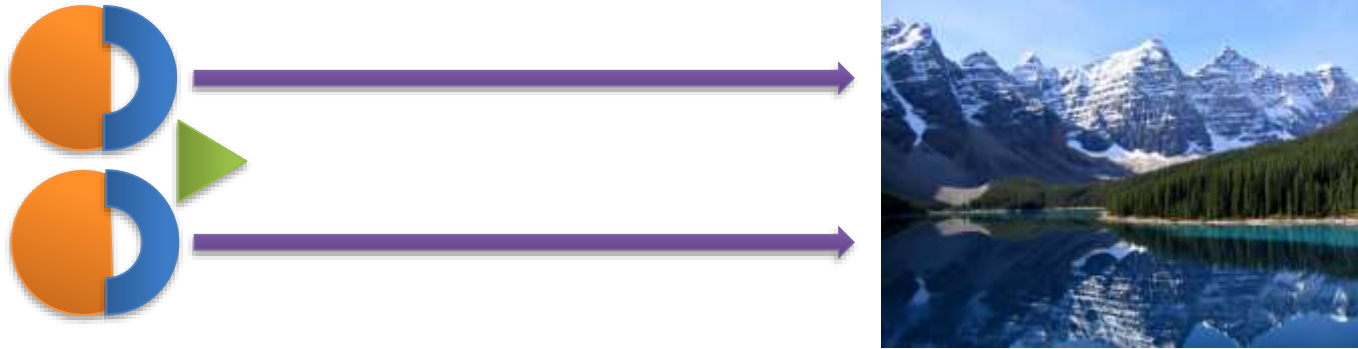
Figure 5. A “simplified” schematic of the neural pathways that can be impacted by neurodegenerative diseases and cause eye movement problems.

Eye Movements can be impaired by Parkinsonism

- Difficulty moving eyes from one object to the next
(Saccadic movement)
- Difficulty following a target or object through space
(Pursuit movement)
- Difficulty moving the eyes together or apart
(Vergence movement)



Looking at distance vs. looking up close



Convergence Insufficiency

The diminished ability of the eyes to turn towards each other to maintain binocular fixation of a near object

A very common problem which frequently causes great difficulty with sustained and comfortable near vision !



double vision can look like this:

double vision
double vision
double vision
double vision
double vision
double vision

Convergence Insufficiency
can make text look double
when trying to read

Some people with
Convergence Insufficiency
experience a "halo effect"
instead of double vision



How do you manage
convergence insufficiency?!

***The good news is that it is
possible!***



First---Always Manage Concurrent Eye and Vision Issues

- **Dry Eyes**
 - Blurring, variable vision, irritation
- **Cataract**
 - Blurred vision, inability to see small detail, glare
- **Glaucoma**
 - Advanced disease will cause dim or missing areas in field of vision
- **Macular Degeneration**
 - Central vision diminished, may have missing areas in central vision or distortion



Optimize Vision Correction

Hyperopia = farsightedness



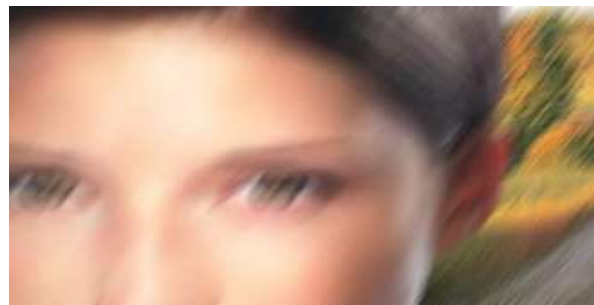
Myopia = nearsightedness



Presbyopia = poor reading vision



Astigmatism = warped defocus



Determine Visual Demands:

***What would
you like to do
with your near
vision?***

- Read a book or newspaper
- Play games on an iPad
- Work on a laptop computer
- Knitting, painting or crafts
- Play card games
- See the meal I am eating
- Reach for my cup accurately
- See my medications





Determine if there is a convergence insufficiency or other eye misalignment



Prism

Moves the visual target for each eye into a position that requires less effort to perceive fusion of the images

Fresnel Press-on Prism

Usually a temporary option



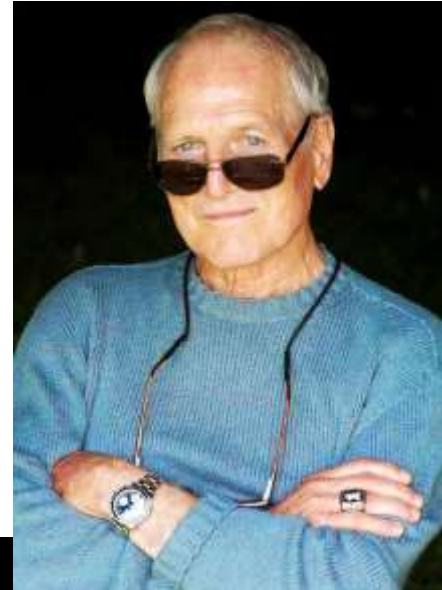
Ground
in
Prism



Please know that these photos show a very high prism prescription. For most people, no one will know you are wearing prism!

Glasses: *typically two pair are necessary*

- Comfortable, well-fitted frames
- Buy different frames for different tasks and label
- Head strap for posture
- Necklaces, lanyards
- Sense of humor



Fogging:

when one eye is just simply unwilling to work with the other



Patching



Other ways to enhance near vision



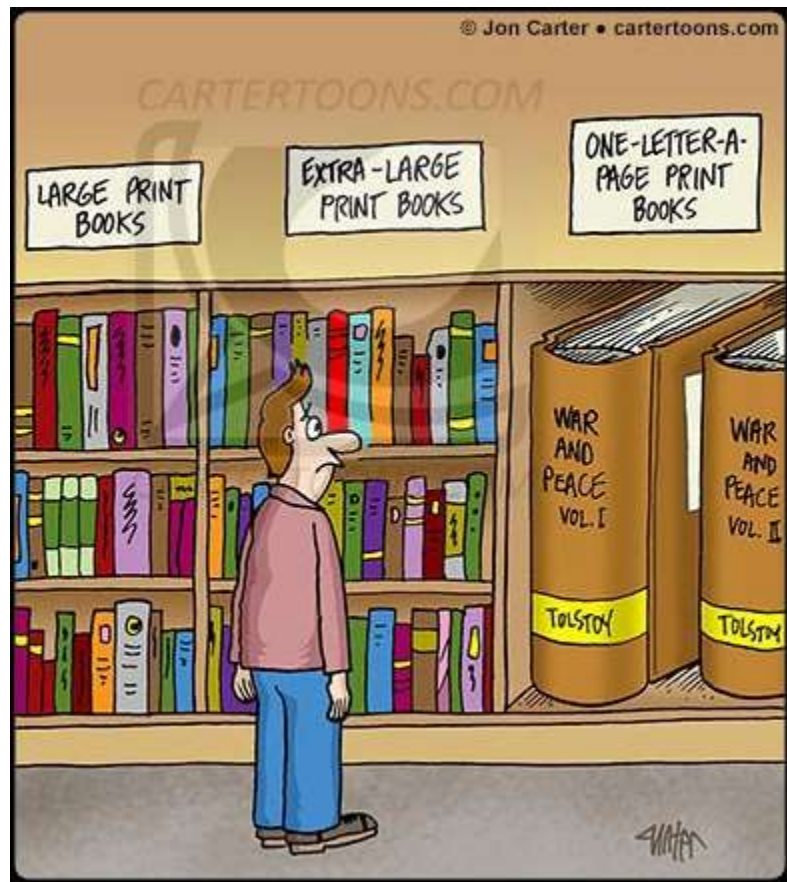
**Bright, directed lighting
for reading is very
important!**



Reading Aids



*Increase
the size
of the
print you
are
reading*



Stabilize your reading material



Levenger ergonomic adjustable reading table

More ways to enhance near vision

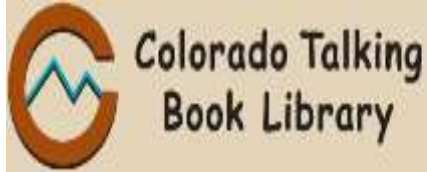


Reading line guide



Lighted Stand Magnifier

And if your eyes won't cooperate, recruit your ears!



Audiobooks are for people who hate reading and for those of us who love reading.

MATTHEW RUBERY, THE UNTOLD HISTORY OF THE TALKING BOOK

Or read with a friend!



How to seek help

➤ YOUR CURRENT EYE CARE PROVIDER

- Advise the scheduler of your concerns and the need for extra exam time

➤ OUR GENERAL EYE CARE PROVIDERS

- As above, advise the scheduler about Parkinson's and specific concerns

➤ OUR NEURO-OPHTHALMOLOGY MOVEMENT DISORDER CLINIC

- A referral only clinic: we review incoming referrals from both internal and external providers to determine if the referral is primarily a visual issue or a more complex eye-related neurological problem associated with Parkinsonism and then schedule appropriately



UCHealth Sue Anschutz-Rodgers Eye Centers

1675 Aurora Court, Aurora

9552 E. Park Meadows Drive, Lone Tree

720-848-2020

<https://www.uchealth.org/locations/uchealth-eye-center-anschutz-medical-campus/>



Thanks for
Zooming !!

