

Content of Activity: Lecture
 Date of Activity: September 2025 and March, 2026
 I also wish to disclose that I have current relevant relationships with the following companies:

Shalu Paul OD FAAO

Company	Role	Relationship
Alcon	Lecturer and Ad Board Member	Honorarium
Bausch & Lomb	Lecturer and Ad Board Member	Honorarium
Bauschgard	Lecturer and Ad Board Member	Honorarium
Carlson Optics	Lecturer	Honorarium
ClearPath	Lecturer and Advisor	Honorarium
CooperVision	Lecturer and Ad Board Member	Honorarium
Corvis	Reviewer	Nothing
Exceller	Consultant and Lecturer	Honorarium
ITI Culture	Regional Rep.	Honorarium
ISI	Lecturer and CDN Board Member	Honorarium
Jentura & Johnson	Lecturer and Ad Board Member	Honorarium
Mediotech	Ad board member	Nothing
Optics	Lecturer and Ad Board Member	Honorarium
Optics	Ad Board member	Honorarium
Pangson	Lecturer & Researcher	Honorarium
Phor	Ad Board Member	Honorarium
Scopia Program	Founder & Lecturer	Honorarium
Sci Phoenix	Ad Board Member	Honorarium
Tecno	Ad Board Member	Honorarium
Thera	Ad Board Member	Honorarium
Topcon	Ad Board Member	Honorarium
Zelus	Lecturer and Researcher	Honorarium

**MYOPIA CONTROL PROGRAM -The
 Greatest Comprehensive Myopia
 Management and Treatment
 Complications Course Ever**

Cheryl Chapman OD FAAO
 Shalu Pal OD FAAO
 Adan Peiffer OD FAAO
 Jack Schaeffer OD FAAO

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- Cheryl Chapman OD FAAO
- disclosures:
-
- Peeq Pro, Pure & Clean, Oculus, WAVE Contact Lens System, Vision Source KOL

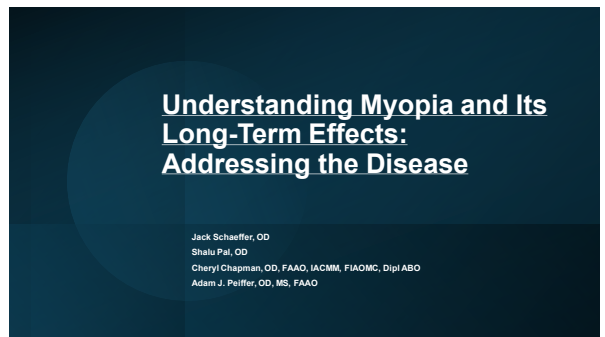
- Adam Pfeifer OD FAAO
- Disclosures: Coopervision - ECP Viewpoints article, MiSight

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JACK L SCHAEFFER, OD FAAO
 SCHAEFFER EYE CENTER
 DISCLOSURES 2026
 I HAVE RECEIVED HONORARIUM, COMPENSATION, OR SERVE AS AN
 ADVISOR TO THE FOLLOWING COMPANIES

- ALCON
- ALLEGAN
- BAUSCH AND LOMB
- BRIEN HOLDEN INSTITUTE
- CLEARPATH
- ORASIS
- SYDNEXIS
- SIGHT SCIENCE
- RODENSTOCK
- TARSIS
- TEARSCIENCE
- TOPCON
- VALEANT
- VISTARON
- WER MD / JOHNSON
- ZEISS VISION
- HARBOW
- TENPOINT

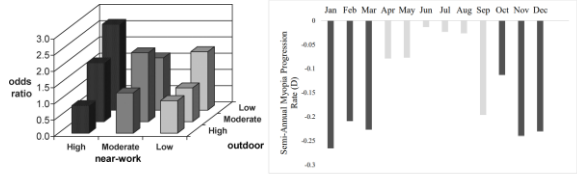


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Environmental/Behavioral

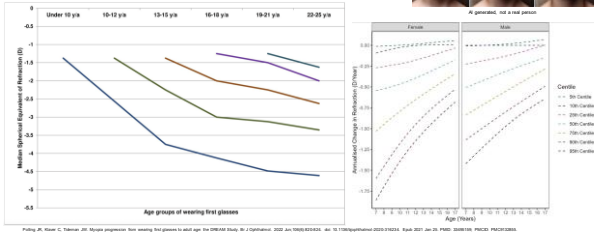
Figure 2-Average Semi-Annual Spherical Equivalent Myopia Progression by Month



Rosa X.A. et al. Outdoor activity reduces the prevalence of myopia in children. *Ophthalmology*. 2008; 115(8): 1479-85.
 Meta-Analysis: Jeffrey J, Williams, Melissa S, Ruzick, Lisa Jordan, Catherine McKeown, David A, Williams, Maria Walker, Justine Raaf, Azzam, Elizabeth Day, Maria A, Chander, Kimberly J, Shaw, Jill A, Mann, David O, Miles. Increased Variation in Myopia Control in The Medical Lens in Hong Kong Study. *Invest Ophthalmol Vis Sci*. 2020; 61(10):3657-67.

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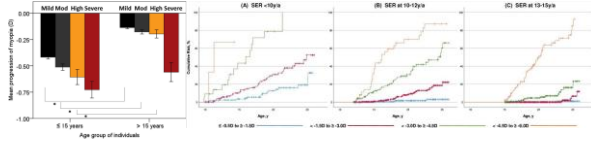
Age



Fukuyama M, Hwang C, Tsai H, et al. Myopia progression from wearing first glasses to adult age: the SHAM Study. *PLoS One*. 2022 Jun 16; 17(6):e0249335. doi: 10.1371/journal.pone.0249335. Epub 2022 Jun 16. PMID: 35681108. PMCID: PMC9183888.
 Hwang C, Tsai H, Fukuyama M, et al. Myopia progression patterns among pediatric patients in a general setting. *Optometry*. 2022 Jun 20; 93(6):24-28. doi: 10.1016/j.optcon.2022.05.005.

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Level of Myopia



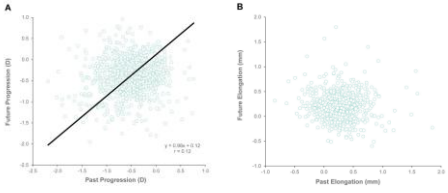
Higher degree of baseline myopia results in higher rate of progression and greater risk of developing high myopia

Wahlstrom PK, Kinnaman P, Day AE (2022) Myopia progression varies with age and severity of myopia. *PLoS One* 17(1): e0249719. doi: 10.1371/journal.pone.0249719
 Pappas M, Zhou C, Tsai H, et al. Myopia progression from wearing first glasses to adult age: the SHAM Study. *PLoS One*. 2022 Jun 16; 17(6):e0249335. doi: 10.1371/journal.pone.0249335. Epub 2022 Jun 16. PMID: 35681108. PMCID: PMC9183888.

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Level of Myopia

Past progression is a poor predictor of future progression



Muller DC, Simons LT, Sheehan NK, Cheng X, Douthett K, Collaborative Longitudinal Evaluation of Ethnicity and Refractive Error (CLEERE) Study Group. The Limited Value of Prior Change in Predicting Future Progression of Juvenile-onset Myopia. *Optom Vis Sci*. 2022 May 1; 99(5):604-610. doi: 10.1097/OVS.0000000000001000. Epub 2022 Apr 25. PMID: 35211193. PMCID: PMC9048686.

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Risks Associated with Myopia

- Retinal Detachment
- Myopic Maculopathy
- Glaucoma
- Cataracts

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Risks Associated with Myopia

- Retinal Detachment
- Myopic Maculopathy
- Glaucoma
- Cataracts

Category	OR (95% CI)	I (Reference)
Axial length, mm		
<24	1 [Reference]	1 [Reference]
24 to <26	0.95 (0.51 to 1.80)	0.65 (0.29 to 1.48)
26 to <28	2.01 (0.88 to 4.62)	3.07 (1.26 to 7.49)
28 to <30	11.01 (5.23 to 23.20)	9.69 (3.06 to 30.71)
≥30	24.69 (11.02 to 55.31)	93.62 (38.35 to 228.55)
Spherical equivalent, D		
<-2.5	1 [Reference]	1 [Reference]
-0.5 to <-3	0.69 (0.34 to 1.43)	0.92 (0.62 to 1.35)
<-3 to <-6	1.42 (0.66 to 3.05)	1.71 (1.07 to 2.74)
<-6 to <-10	2.95 (1.35 to 6.42)	5.54 (3.12 to 9.85)
<-10 to <-15	6.79 (2.87 to 16.08)	7.77 (3.38 to 17.95)
<-15	27.85 (11.34 to 68.37)	87.63 (34.50 to 222.58)

Tsai H, Zhou C, Tsai H, et al. Myopia progression from wearing first glasses to adult age: the SHAM Study. *PLoS One*. 2022 Jun 16; 17(6):e0249335. doi: 10.1371/journal.pone.0249335. Epub 2022 Jun 16. PMID: 35681108. PMCID: PMC9183888.

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Retinal Detachment Risk

- **Incidence of RD**
 - Non-myopes: 22.44 per 100,000 person-years
 - Myopes: 67.51 per 100,000 person-years (3x)
 - High myopes: 868.83 per 100,000 person-years (39x)
- **Low myopia 4x increased risk**
- **Moderate myopia 10x increased risk**
- **High Myopia 20x increased risk**

Each 1D increase results in 30% increased risk of RD

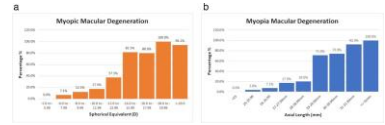
Wong, W. et al. The epidemiology of age-related macular degeneration: prevalence and clinical associations. *British Journal of Ophthalmology*. 2002;86(12):1336-44.
 Bressi, G. et al. The prevalence of retinal detachment and its relationship to refractive error. *Journal of Clinical Ophthalmology*. 2004;64(10):1092-100.
 Bressi, G. et al. The influence of refractive error and axial length on the incidence of retinal detachment. *Survey of Ophthalmology*. 2007;52(1):1-11.
 Bressi, G. et al. Prevalence of axial length less than 22 mm in myopia. *Investigative Ophthalmology and Visual Science*. 2004;45(11):3781-84.

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Myopic Maculopathy Risk

Low myopia (≤-0.5 to >-3.00D): 0.1-7% prevalence High myopia (≥-6.00D): up to 65% prevalence

- Severe myopia:**
- OR 60.19 for MMD,
 - OR 22.9 for CNV,
 - OR 102.98 for foveoschisis
 - OR 6.69 for Macular hole



Each 1D increase results in 67% increased risk of MMD
 Each 1mm increase in axial length results in >200% increased risk of conversion to MMD

Wong, W. et al. The prevalence of age-related macular degeneration: prevalence and clinical associations. *British Journal of Ophthalmology*. 2002;86(12):1336-44.
 Bressi, G. et al. The influence of refractive error and axial length on the incidence of retinal detachment. *Survey of Ophthalmology*. 2007;52(1):1-11.
 Bressi, G. et al. Prevalence of axial length less than 22 mm in myopia. *Investigative Ophthalmology and Visual Science*. 2004;45(11):3781-84.

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Systemic Associations to Infantile and Early Childhood Myopia

- Marfan Syndrome
- Stickler Syndrome
- Down Syndrome
- Ehlers-Danlos Syndrome
- Noonan Syndrome
- Homocystinuria
- Congenital Glaucoma
- ROP w/wo PRP
 - Anatomical and Pathological associations
 - Deprivation
 - Cataract
 - Infection
 - Optic nerve hypoplasia/coloboma
 - Myelinated nerve fibers

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Systemic Associations to Infantile and Early Childhood Myopia

- Multidisciplinary approach
 - Genetics
 - Cardiology
 - Endocrinology
 - Neurology
 - Peds Ophthalmology: EUA

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Anterior Segment Considerations in Myopia Management

- Personal/CL hygiene
- Blepharitis/MGD
- Dry Eye Syndrome
- Allergic Conjunctivitis
- Microbial/Infiltrative Keratitis
- Corneal Abrasion



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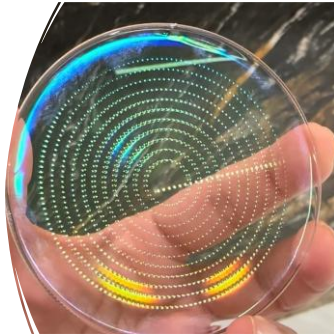
Myopia Beyond Vision Correction

- Dr. Jack Schaeffer
- Dr. Cheryl Chapman
- Dr. Adam Peiffer
- Dr. Shalu Pal



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Myopia Management Spectacles



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Explain Myopia, Progression & Control



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Past Spectacle Choices

<p>Single Vision</p> <ul style="list-style-type: none"> Hyperopic Defocus created Increases Myopia Progression **Makes things worse** 	<p>Under-Correction</p> <ul style="list-style-type: none"> Distance Blurry Increases progression & Axial Elongation **Makes things worse**
<p>Executive Bifocals</p> <ul style="list-style-type: none"> Reduces accommodative Strain & Acc Esotropia, Lag of Accommodation 3 year study (Cheng) – 0.81D/1D prism **A Little Effective** 	<p>Progressives</p> <ul style="list-style-type: none"> Reduces accommodative Strain & Acc Esotropia, Lag of Accommodation 3 year study (Cheng) – 0.2D **NOT Effective**

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Designs in Canada – Myopic Defocus

<p>DIMS (MIYOSMART)</p> <ul style="list-style-type: none"> Released 2019 400 +3.50 islands Honeycomb pattern 50/50 distance/near 6-year data 59% reduction in RE 60% reduction in AXL Start anytime, stop and prog will start, longer is better 	<p>H.A.L.T. (Stellest)</p> <ul style="list-style-type: none"> Released 2021 11 concentric rings Volume of defocus Unknown add power 4-year data 67% reduction in RE 60% reduction in AXL 100% adaptation in 1 week 12 hours per day 	<p>MyoCare</p> <ul style="list-style-type: none"> July 2023 2 designs <ul style="list-style-type: none"> Younger than 10 <ul style="list-style-type: none"> +4.80 add 7 mm center distance Older than 10 <ul style="list-style-type: none"> +3.80 add 9 mm center distance 6-month data <ul style="list-style-type: none"> 63% reduction in RE 77% reduction in AXL
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Designs in Canada – Contrast Diffusion Optics

- DOT Lens (MiSight)**
- Summer 2021
 - Diffusion optics
 - 1000's microscopic **light scattering elements**
 - Theory:** High contrast can increase the progression, low contrast can potentially reduce the progression of myopia.
 - Mimics natural contrast
 - Outdoors environment
 - High contrast centrally
 - Low contrast peripherally
 - Computer distance
 - High contrast always
 - No low contrast peripherally
 - 40% no progression at all - study in North America
 - ~60% reduction in RE
 - 38% reduction in AXL



Cypress study
75% reduction in myopia
42% no change over 2 years of wear

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The Game Changer

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How Spectacles Changed My Practice

The Game Changer

- Made treatment accessible and achievable for every child.

Simplified Entry Point

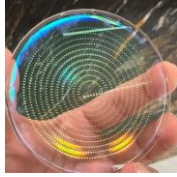
- Easy to start conversations about myopia manage with families

Natural Progression

- Options discussed as always: glasses first, then contact lenses

Standard of Care

- Myopia management is now integrated into every



Key Insight: Ease of use and minimal adaptation issues mean higher patient satisfaction and treatment compliance.

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Role of My Optician

- Five doctors all feed into 1 dispensary

- Opticians well-versed in myopia control
 - Myself
 - Sales reps
 - Certification training on products

- They discuss with patients
 - The product designs
 - Need for follow-up
 - Option to see OD for a consultation

- All doctors in the office are on board



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Dispensing Tips

1 Avoid Single Vision Products

Always dispense myopia management lenses, this is your standard of care.

2 Engage the Child in Frame Selection

Let children participate in frame selection to build ownership and excitement.

3 Correct Frame Measurements

Optimal centration is better is critical. Put the frame on the child and emphasize the "magic" of these glasses.

4 Positive Communication

Don't point out potential issues. Focus on benefits and confidence-building.

5 Adjustments are Free

Remind families: adjustments are always free.

6 Wear Schedule

Recommend 12-16 hours daily for optimal myopia control.

7 Open Door Policy

Encourage families to return if issues arise. Don't pre-empt problems.



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Happy Calls



- In 2 weeks
- No Hesitation to Call
- Want to make sure people are happy
- Want to make sure they know we will fix concerns
- Ask if they are happy
- Be ready if they say they are struggling with
 - Ability to focus
 - Headaches
 - Blurry vision
 - Double Vision
 - Comfort
- Book next visit - 6 Month Rx Check/Annual

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Correct Path??

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Our Obligation and Responsibility

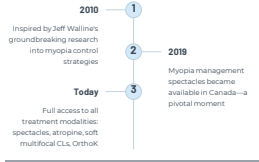
"We can't unsee this"

- In 2050 – half of the world's population will be myopic
- Myopia will continue to increase no matter what we do
- The eye will continue to grow no matter what we do
- The higher the myopia the greater the future risk
- We CANNOT stop the progression of myopia
- We CAN slow the rate progression by 75% for Rx
- We CAN slow the rate progression by 60% for Axd
- If we reduce myopia by 1D, we reduce risk of myopic maculopathy by 40%
- If we delay the onset by 1 year, we reduce myopia by 1D



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My Myopia Practice Journey



- Our Practice Model**
- 5 Doctors fully trained and committed
 - **Myopia Management is Standard of Care**
 - Complete team alignment—doctors and staff

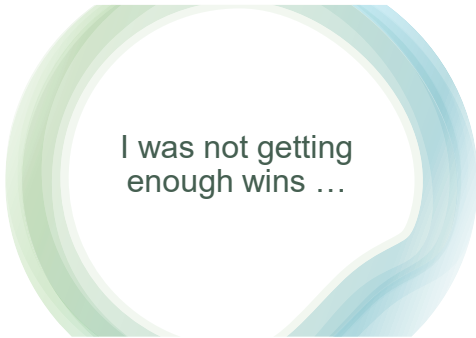


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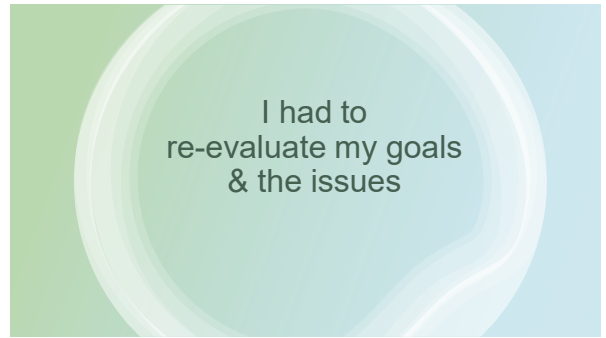
Lessons Learned in Practice Implementation



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New GOAL

Every Myope to be in a Myopia Control treatment option.

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What were the issues?

1. ME - Confusing Parents

- Too much discussion
- Too much info
- They wanted 2nd opinions, time to think



I REMOVED THE HURDLE

SOLUTION: Stopped talking, no choices, gave best recommendations

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What is Glaucoma?



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I stopped talking & starting Recommending



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What were the issues?

2. COST

- Every ask for more money, I lost people
- Testing – Axial Length
 - Myopia Assessment
 - Management Costs



I REMOVED THE HURDLE

SOLUTION: Axial Length during Pre-test N/C on every child under 19
No More generic bundles

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What were the issues?

3. Time

- People wanted their annual exam
- Didn't want to come back for more testing



I REMOVED THE HURDLE

SOLUTION: Axial Length during Pre-test, determine if myopia is present and prescribe what they need

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My Patients vs Referred for MM

My patients

- Axial length on all
- Part of their exam
- Recommend and staff explain more

• Referred for MM

- Longer conversations
- Parents want more details
- They have come in prepared



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What were the issues?

4. Patients Refusing Monitoring

- No time
- No Money
- Not believing importance



- Do we deprive patients of treatment if they refuse monitoring? Not keeping tx hostage?

I REMOVED THE HURDLE

SOLUTION: Do not need to be monitored if you don't want

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**In my humble opinion, as
an industry we are
overcomplicating this**

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Let's Do This Better ...

- Let's stop making it so hard on ourselves
- It's ok to use your machines
- Don't wait and watch for progression
- Pay attention to pre-myopes
- Discuss lifestyle changes
- You don't have to force monitoring to treat myopia
- Don't withhold treatment



I Free you to do it differently

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**Safety of Myopia
Control Options**

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Myopia Control Options

- Spectacles
- Atropine
- Multifocal soft contact lenses
- Overnight orthokeratology
- Red light therapy

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Atropine

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Safety of Atropine

- Clinical trials using atropine for
 - myopia control or
 - monocularly for penalization therapy for amblyopia
- Very little risk of
 - systemic adverse events
- Ocular side effects as anticipated:
 - photophobia, reduced near vision, or ocular irritation due to preservatives

Journal of Pediatric Ophthalmology & Strabismus | Volume 53, Issue 2 | RESEARCH ARTICLE

Long-term Safety Profile of Low-Dose Atropine for Myopia Control: A Meta-Analysis of Clinical Trials

Authors: Sarah A. Lee, MD, Michael Chen, PhD, Emily Davis, OD

ABSTRACT
 Purpose: To evaluate the safety profile of various concentrations of atropine used in clinical trials for myopia progression and amblyopia.
 Methods: Systematic review and meta-analysis of randomized controlled trials and cohort studies.
 Results: Analysis of data from over 6,000 participants indicates a highly favorable safety profile. Very few instances of significant systemic adverse events were reported. Ocular side effects, including photophobia and reduced near acuity, were dose-dependent and generally mild, reversible, and manageable. Ocular surface irritation was uncommon but occasionally related to preservatives used.
 Conclusion: Atropine therapy demonstrates a very low risk of serious systemic side effects, with anticipated ocular effects being the primary consideration.
 DOI: 10.1097/OPD.0000000000000214

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Safety of Atropine

- ATOM study
 - Amplitude of accommodation and near visual acuity:
 - Returned to baseline after two years of treatment with 1% atropine was discontinued

Parameter	Baseline	1 Year Treatment (1%)	Post-Treatment
Accommodation (D)	1.22	0.82	1.22
Near Visual Acuity (logMAR)	0.28	0.37	0.28

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Safety of Atropine

- American Academy of Ophthalmology report: "Atropine for the Prevention of Myopia Progression in Children"
- Does not list any safety concerns

Ophthalmology Technology Assessment

Atropine for the Prevention of Myopia Progression in Children

Michael F. Chiang, MD, et al.
 Volume 124, Issue 12, Pages 1857-1866, December 2017

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Safety of Atropine

FDA's 2016 Review of Atropine Ophthalmic Solution

- FDA's 2016 review states that 1% atropine is safe in:
 - "children greater than 3 months of age"
 - "supported by adequate and well controlled studies"

FDA Clinical Review Table - Atropine Ophthalmic Solution (2016)

Population	Population	Rating
1. Safety Profile	Children 3 months	Approved with conditions
2. Age Group	Infants 3 months	Approved

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Anticholinergics and Dementia

Long-term Use & Risk Factors

- 3 years of "strong anticholinergic" use:
 - oxybutynin chloride, 5 mg/day
 - doxepinhydrochloride, 10 mg/day
- Greater risk for dementia
- One drop of 1% atropine contains ~0.0004 mg of anticholinergic

JAMA Internal Medicine | Original Investigation

Anticholinergic Drug Exposure and the Risk of Dementia: A Nested Case-Control Study

Gray S, Anderson ML, Dunlop S, et al. *Ann Intern Med*. 2016;164(11):753-760.

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Effect of Atropine

Myopia progression at 2 years in ATOM (N = 400)

- 0.28 D in 1% eyes 0.92 D
- 1.20 D in placebo eyes

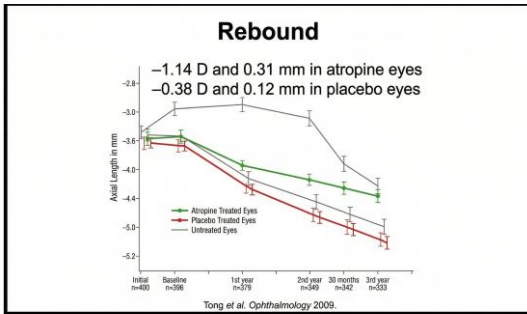
Axial elongation at 2 years in ATOM (N = 400)

- 0.02 mm in 1% eyes 0.40 mm
- +0.38 mm in placebo eyes

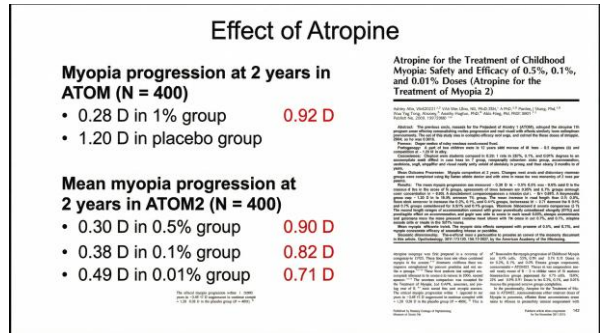
Atropine for the Treatment of Childhood Myopia

Chen M, et al. *Invest Ophthalmol Vis Sci*. 2016;57(12):5055-5062.

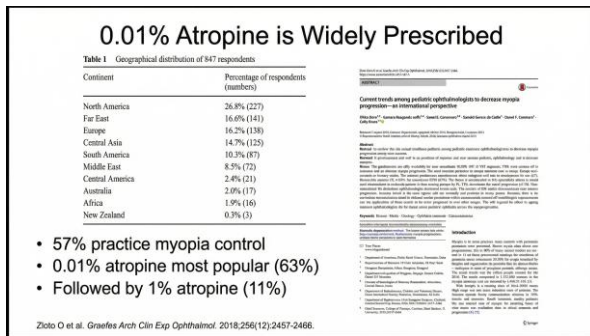
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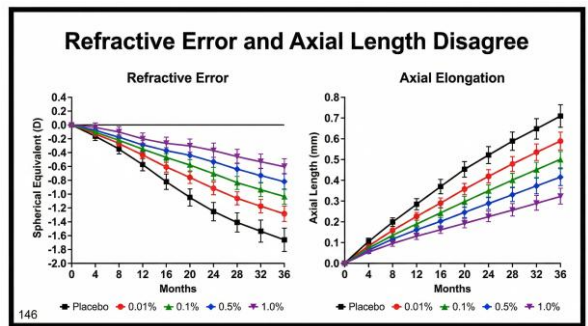
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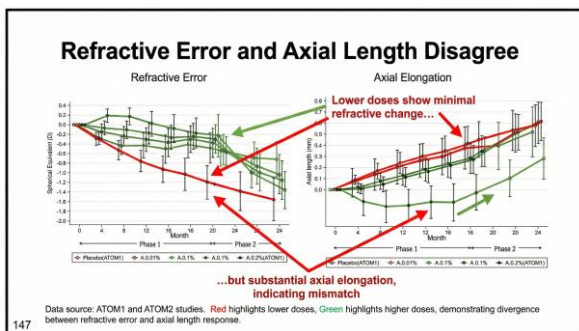
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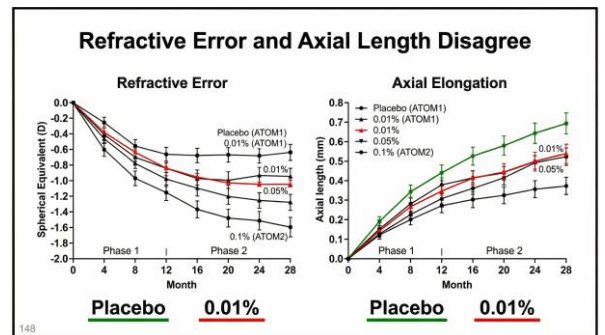
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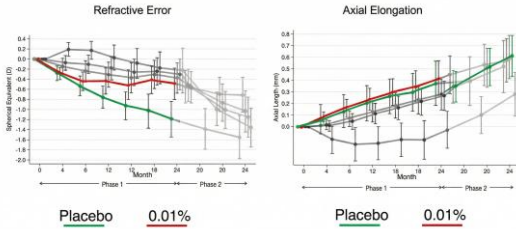


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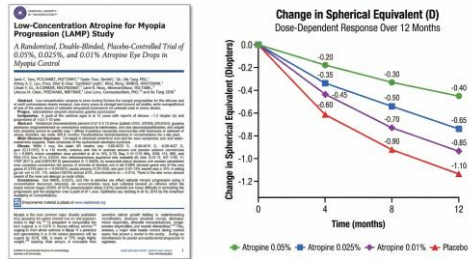
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Refractive Error and Axial Length Disagree



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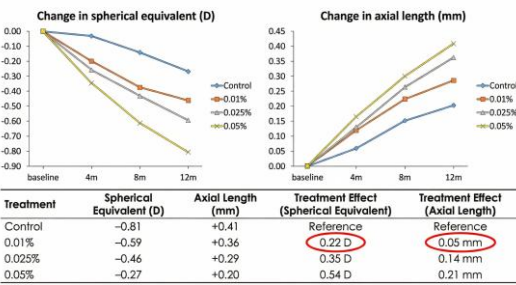
Effect of Atropine Concentration



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Change in Spherical Equivalent and Axial Length



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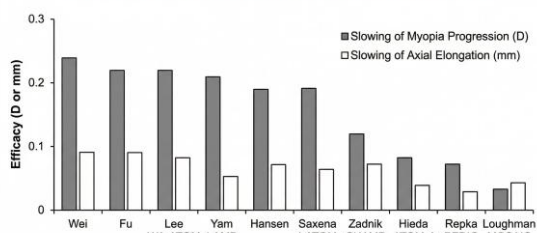
Many More Clinical Trials

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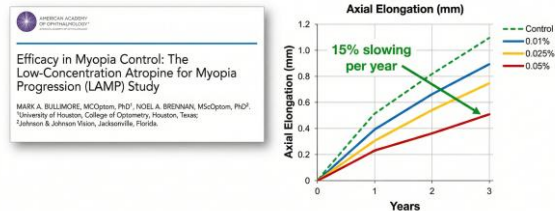
Clinical Trials of 0.01% Atropine—1-year Efficacy

Mean slowing of axial elongation = 0.06 ± 0.02 mm

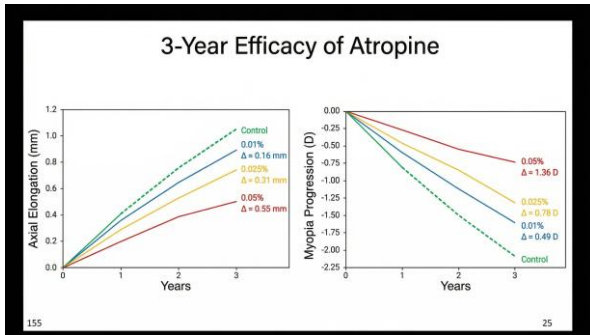


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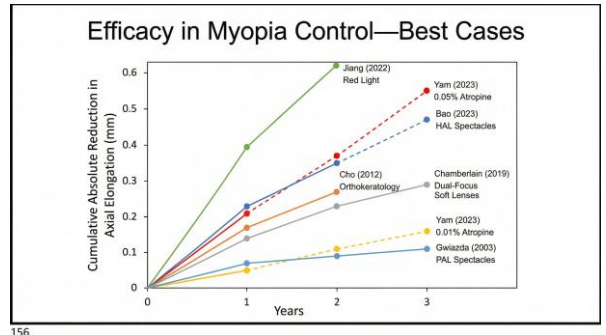
3-Year Efficacy of Atropine



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Laboratory Analysis of Low-dose Atropine From Compounding Pharmacies Reveals Many Concerns

- 24 samples from 9 compounding pharmacies
- Impurities: 5 of samples (21%) had > 10% impurities
- Degradation: 25% with potencies under 90% of target
- Tropic acid concentration over USP limit in 4 samples from 2 pharmacies

Source: Richdale K et al. Eye Contact Lens. 2022.

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Compounding Pharmacies Show Wide Variability

- Beyond use dates ranged from less than 2 weeks to 6 months
- 38% (10/26) recommend refrigeration
- 50% from solution, 38% from powder
- Inactive ingredients: boric acid, BAK, EDTA and NaCl, mixed into saline or artificial tears

Richdale K et al. Eye Contact Lens. 2022.

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Which Treatment is Best?

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Atropine

- Easy to administer
- Not time consuming
- Can use in combination with CL's and glasses

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Mechanism of action?

- Atropine causes the **choroidal to thicken**¹ - 10-20 microns after several weeks of use
- Atropine blocks **scleral muscarinic receptors** which causes the scleral fibroblasts to stabilize the sclera. They would normally thin the sclera to allow for elongation but atropine down regulates scleral **fibroblasts** which impact the **scleral matrix**.³ (Stiffens, thickens and reduces flexibility)
- The retinal muscarinic receptors are blocked with Atropine. This causes the retinal **amacrine cells** to release of dopamine. **Dopamine** slows down the growth of the retina and shuts down the stimulus to blur elongation that typically takes place – thus **reducing the growth of Axial length**.²

¹ Zhang Y, Zhou Y, Gu Z, Chen Y, Gu Y, Lu S, et al. The effect of topical atropine on the choroidal thickness of healthy children. *Sci Rep*. 2021;6:34938.
² Patel SA, Sharma-Ganesh S, Yessierli C, Collins MK. Longitudinal changes in choroidal thickness and eye growth in childhood. *Invest Ophthalmol Vis Sci*. 2015;56:3103-12.
³ Lind G, Chen S, Marzani D, Wallman J. Muscarinic acetylcholine receptor antagonists inhibit chick scleral chondrocytes. *Invest Ophthalmol Vis Sci*. 1998;39:2217-31.

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Choroidal Thickness

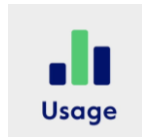
- A potential biomarker for treatment efficacy
- **A thinner choroid** is present in myopic eyes
- Choroid **thins just before** axial length grows
- **Thickening slows** down the progression
- **Choroid is susceptible to focus signals**
 - **Hyperopic defocus causes choroidal thinning**
 - **Myopic defocus causes choroidal thickening**
 - **Atropine**
 - **Soft contact lenses**
 - **Myopia control glasses**



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How to use Atropine

- First line treatment
- Add on when 1st line is not working
- **Start 2 treatments at the same time??**
- Monitor for Symptoms
- RTC Q3 months unless symptomatic
- Start with one concentration and move up or down to a max of 0.05%



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Atropine

- ATOM1,2,3 – all show 0.05% most effective
- Recommend: 1 gtt 0.05% atropine qhs OU
 - Common 0.01, 0.02, 0.025 and 0.05%
 - **Which one to start with?**
- Must be compounded in the US & Canada
 - Not all compounding pharmacies are the same
 - Concentration, preservatives, vehicle, components



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Atropine Side Effects

- Photophobia
- Blurry near vision – mydriatic effect
- Sting on insertion
- Dry eyes
- Tachycardia
- Flushes skin and face
- Allergic reaction



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When do you stop? Lots of controversy

- When side effects are causing more harm
- 2 years then stop?
- Longer - With proper monitoring you can use it? Still Progressing?
- Age - The CLEVER team from the Netherlands use until age 15, if progression rate is over 0.05mm/year then keep going
- Taper the Stop:
 - Every other day for 2-3 months
 - Once a week for 2-3 months.
 - Combine reducing concentration as well



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Atropine Manufactured Single Use Drops

Myopia – Atropine Clinical Trials (2026)						
Product	Route	Age	Length	% Atropine	Axial Length Reduction (μm / 3 yrs)	Regulatory Status (2026)
Vyluma (Hexabar-002)	Drop	3-17yrs	3 years (24wks)	0.01% & 0.02% 28w / 3 yrs	-0.27 mm (-0.01% / 3 yrs) -28% / 3 yrs	NDA under FDA review (pre-submission following CHAMP data refinement)
Eyenovia (MicroPine)	Ocular microfilm spray	3-12yrs	3 years (concurrent)	0.05%	-0.2 mm (-0.2% / 3 yrs)	Phase III program now discontinued. Company pivoting strategy. No FDA submission active.
Sydnexis (SYD-101)	Drop (temporary device)	3-14yrs	3+1 years	0.05%	-0.28 mm (-0.28 / 3 yrs) -31% / 3 yrs	Approved in Europe (end-2025). U.S. FDA review ongoing; NDA submitted 2024.
Companded / Lab Atropine	Drop	Available	0.01% & 0.02% Ongoing	0.01-0.025% off-label use	-0.25-0.33 mm (3 yrs) -0.10% & -0.20% / 3 yrs	Widely used off-label in U.S. & Canada. No DDI in Canada. Stability & formulation variability remain concerns.
	Drop	0.01% & 0.02%	0.01% & 0.02%	0.25-0.05%		Widely used off-label in U.S. & Canada. No DDI in Canada. Stability & formulation variability remain concerns.