

**Kraskin Invitational
Skeffington Symposium
on Vision**

January 14-16, 2017

Two Cases

Steve Gallop, OD



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What's in a lens?



How would you get from point A to point B?

Point A:

OD -11.00 -1.50 x 040
OS -11.75 -1.00 x 150

Point B:

OU -8.50

How would you get from point A to point B?

Point A:

OD -4.25 -2.25 x 005
OS -4.25 -1.75 x 170

Point B:

OU -3.50

The journey of 1000 miles begins with a single step



Lao Tzu

And maybe a touch of bull

Why do we prescribe lenses?

- To compensate for undesirable refractive states
 - Nearsightedness
 - Adverse farsightedness
 - Adverse astigmatism
- To compensate for poor eye alignment
- To compensate for presbyopic changes

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Are there other reasons to prescribe lenses?

- To prevent undesirable refractive states
 - Nearsightedness
 - Adverse farsightedness
 - Adverse astigmatism
- To remediate undesirable refractive states
- To prevent or remediate strabismus
- To prevent or reduce visual stress
- To enhance visual performance
- To protect, stimulate, guide and enhance visual development

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“Lenses change the orders to the system.”

A.M. Skeffington, OD

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“It’s not what a lens does to a person, but what a person does with a lens that matters.”

Robert A. Kraskin, OD

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Lenses are medicine.

Medicine n. 1. any substance, drug, or means used to cure disease or *improve health*.

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Something to think about...

Perhaps optimal acuity should be thought of as a result of a well-functioning visual process, not a prerequisite. I have found that vision therapy often leads to improved distance acuity. I think this is because the person becomes able to make better use of the available information as the visual process becomes more sophisticated and effective as a result of vision therapy and/or a more strategic, dynamic use of lenses.

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Some basic assumptions

- The primary purpose of the visual process is to direct action.
- The visual process is pervasive in human behavior.
- There is rarely a single "correct" Rx; there is typically a range of lenses that provide appropriate assistance.
- Most standard (compensating) prescriptions are stronger than necessary for their proposed use.
- Most standard prescriptions are inappropriate for the majority of the activities for which they are worn.
- The primary purpose of optometry is (or should be) to direct development of the visual process.
- When confronted with any given individual statistics are, at best, useless.

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Basic Prescribing Concepts

- Prescribe for the person, not the measurements or the eye
- Start at near and work from there
- Prioritize prescribing for comfort, performance and development, not acuity
- Consider a lens that allows the person to observe the natural fluctuations in acuity
- Use balanced lenses whenever possible
- Compensating lenses should not be a first resort

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Basic Prescribing Concepts

- One Rx is rarely good for all tasks
 - Avoid prescribing only one Rx unless it's strictly therapeutic and therefore intended as a task-specific device
- Avoid prescribing or reduce cylinder whenever possible
- Most doctors prescribe lenses based only on distance acuity.
- Lenses derived strictly on distance acuity "needs" are likely to have undesired consequences.
- If a person needs to adapt to the lenses it might be best to reconsider the Rx

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“The specific cause of astigmatism is unknown. It can be hereditary and is usually present from birth. It can change as a child grows and may decrease or worsen over time.”

(according to the AOA website)

Translation...

We barely know what astigmatism is and we really don't know what to do about it other than stick a lens in front of it and cross our fingers. And really, we would prefer to not talk about it if that is okay with you.

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In my experience...

- Almost everyone has some amount of astigmatism.
- Some people seem to need compensation.
- Many have compensating lenses but seem not to need them.
- Most have astigmatism and are asymptomatic.
- Astigmatism is easy to measure and prescribe.
- Doctors prefer to prescribe without talking about it.

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This is what I usually tell patients...

Your glasses have astigmatism.

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“The optimal lens is not covariant with the refractive status of the eye but is determined by the clinical understanding of the problem.”

A.M. Skeffington

Prescribing lenses based solely on acuity often has less to do with the person who will be wearing the lenses than with the doctor prescribing them.

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“The value of the lens to the wearer is the change made in the output. True, there is a change in the input. However, this change brings about altered responses within the organism and so affects changes in the output. These output changes are the ones that lend significance to the use of lenses.”

A.M. Skeffington

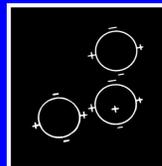
Sometimes a prescription is a means to an end and not an end unto itself.

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Apparently I've been a bad boy.



What about K readings?



1 The instrument is observed as being slightly out of focus. Mire images are doubled.

2 The left side plus (+) sign of the mire circle image and the plus (+) sign of the central mire image are superimposed. Horizontal meridian setting is now completed.

3 The horizontal lines of mire images are disconnected. Instrument is not positioned correctly at the cylinder axis.

Cylinder is greatly over-prescribed.

It never hurts to try something new.

Any change can be reversed or modified as needed.

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Keep this in mind...

Gwiazda also suggested allowing up to 1.5D of astigmatism. Mutti noted that the BLINK study allowed only up to 1D of astigmatism. "I regretted that decision a bit, because in recruitment we saw children not qualify with 1.03D of astigmatism," he said. "We had to turn away subjects eager to participate. I would say past 1.5D of astigmatism you're probably highly unlikely to get acceptable acuity," he continued.

I assume each of you has one of these:



Astigmatism Exercises - How to Fix Astigmatism Fast and Naturally

Jane M.
March 16, 2016

Jane reported discomfort at the computer. She gave up wearing contact lenses two months earlier due to discomfort. She is on the computer all day at work.

- 60 y.o.
- First Rx age 7
- Attorney
- unhappy with monovision/BF contacts

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All testing done with SPRx (2 wks old)

OD -11.00 -1.50 x 040 20/25⁻² +2
 OS -11.75 -1.00 x 150 20/25⁻² 20/25⁺² OU*
 +2.25 add OU 1 1/2 BU OS
 NVA w/ Rx 1.0M OU 8" to arm's length+

Stereo: (+) GF 250" 20" Randot

*DVA at end of eval OU 20/20

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Pursuits: 100% (-) restrictions

Saccades: undershoots; Z-axis = good-

Maddox Rod (near)

MR OD Ortho 1 → 3 1/2 eso w/ int cent'l sup
 MR OD Ortho 1 → 8 eso w/ int cent'l sup

Retinoscopy

Distance: OD +0.75
 OS +0.75

Near: OD PL
 OS PL

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"Final" Rx

OD -10.00 -1.00 x 40
OS -10.00 -1.00 x 150

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Was wearing old Rx at start of VT

OD -11.00 -0.75 x 20
OS -11.12 sph

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April 20, 2016

Try -10.00 CLs OU

April 25, 2016

-10.00 good @ D, poor @ N

Try -9.50 CLs OU

May 16, 2016

Try -9.00 CLs OU

VA OD 20/25 OS 20/30 OU 20/25⁻²

Prescribed -1.00 OU DVO over CLs

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September 26, 2016

Try -8.50 CLs OU

November 7, 2016

began full-time use of -8.50 CLs OU

November 21, 2016

VA OD 20/30⁻¹ OS 20/70⁻¹ OU 20/50⁻²

December 26, 2016

VA OD 20/30⁻¹ OS 20/60⁺¹ OU 20/50⁻¹

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Anne C. October 15, 2016

Anne called from Massachusetts after reading an interview on endmyopia.org. Chief complaint: "to take better care of my vision."

- 57 y.o.
- First Rx age 9
- Patent attorney (wants to be a dog trainer)
- Asthenopia at day's end some days
- Gets drowsy reading
- unhappy with PALs (got them Jan '16)

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All testing done with SPRx

OD -4.25 -2.25 x 005 20/20⁻³
OS -4.25 -1.75 x 170 20/20⁺¹ 20/20⁻¹ OU
+2.25 add OU

NVA w/ Rx 1.0M OU 16" to arm's length+

Stereo: (+) GF 250" 30"Randot

K readings:

OD -2.00 x 180 AM 45.00
OS -2.00 x 180 AM 45.25

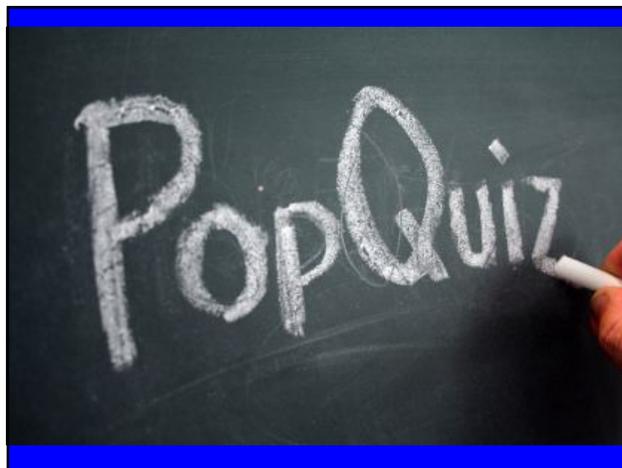
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Pursuits: 100% (-) restrictions
Saccades: undershoots; Z-axis = messy
(w/out Rx)

Maddox Rod (near)
MR OD Ortho/1/2 xo
MR OD Ortho/3 xo

Retinoscopy
Distance: OD +0.75
OS +0.75
Near: OD +0.50
OS +0.50

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What would most doctors prescribe?

What would you prescribe?

More important...

Why?

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"Final" Rx

OU -3.50 DVA 20/25⁻² OU

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The journey of 1000 miles begins with a single step



Sometimes it is a very big step

Lenses change the instructions to the brain.

- To promote positive change and development
- To reduce stress
- To improve visual efficiency and performance
- To improve spatial/temporal processing
- To improve mobility
- To improve binocularity and accommodation
- And if you have nothing better to do...to improve acuity

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Prescribing lenses based solely on acuity often has less to do with the person who will be wearing the lenses than with the doctor prescribing them.

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Something to think about...

Lenses should, whenever possible, be used to provide opportunities for the system to change for the better. Lenses are not living up to their potential when all they are intended to do is carry out tasks that the organism is deemed unable to manage on its own.

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"We feel that our vision is like a camera, but that is utterly wrong. Our brains aren't just seeing, they're actively constructing the visual scene and making decisions about it."

Dobromir Rahnev, psychologist Georgia Institute of Technology

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We may be selling ourselves and our patients short by the continued insistence on prescribing lenses based strictly on acuity.

Wearing lenses based solely on acuity on a full-time basis is like...

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Always try to provide the greatest benefit with the least amount of interference. Maximize the therapeutic aspects and minimize the compensatory aspects of any lens prescription. Try to impinge on the natural state as little as possible when compensating. Prescribe with an eye to the future, not the past.

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"It is by logic that we prove, but by intuition that we discover."

Henri Poincaré

(French mathematician, theoretical physicist, engineer, and a philosopher of science - late 1800s to early 1900s)

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Thank you. I hope you've enjoyed myself.