Eyecare’s Most Revolutionary Optical Solution

Vance Thompson, MD
Sioux Falls, South Dakota
Financial Disclosures

Acufocus: Consultant/Research
Alcon Laboratories: Consultant/Research
Allergan: Consultant/Research
Allotex: Consultant/Advisor
Avellino: Consultant
Bausch and Lomb: Consultant/Advisor/Research
BRIM Biotechnology, Inc: Consultant
Carl Zeiss Meditec: Consultant/Research
Conjtic: Consultant/Advisory/Equity Owner
CSO: Consultant
Equinox: Consultant/Investor
Euclid Systems: Consultant
eyeBrain Medical Inc: Equity Owner
Eyedetec: Consultant
EyeGate Pharma: Consultant
Healthe: Consultant
Imprimis: Consultant/Advisor

Johnson and Johnson: Consultant/Research
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SightSciences: Consultant
Stuart Therapeutics: Consultant
Tarsus Rx: Consultant
TearClear: Consultant
ThruFocus: Consultant
Treehouse Health: Consultant/Advisor/Equity Owner
Veracity: Consultant
Visant: Consultant
Visiometrics: Consultant
Vivor AG: Consultant
Artificial Tears  Restasis  Xiidra  Punctal Plugs
Revolutionary Dry Eye Drug/Treatment
Revolutionary Dry Eye Drug/Treatment

FDA Approval?
Revolutionary Dry Eye Drug/Treatment
Revolutionary Dry Eye Drug/Treatment

FDA Approval?

Phantom Dry Eye
Revolutionary Dry Eye Drug/Treatment

Phantom Dry Eye

FDA Approval?
Dramatic Shift in Near Tasks!

![Graph showing the number of units of Tablets, Smartphones, and Personal Computers from 2000 to 2016. The graph indicates a significant increase in the number of Tablets and Smartphones, with a decrease in Personal Computers.]
Digital Vision Syndrome

65% of Americans

Symptoms Reported

- Neck/shoulder/back pain: 36%
- Eye strain: 35%
- Headache: 25%
- Blurred vision: 25%
- Dry eyes: 24%

according to the Vision Council 2016 report
Headache Types

- Migraine without Aura
- Migraine with Aura:
- Tension Type Headache
- Medication overuse headache
Headache Types

- Migraine without Aura
- Migraine with Aura:
  - Constant headache
  - Dry eye sensation
  - Light sensitive
- Tension Type Headache
- Medication overuse headache
Headache Types

Migraine without Aura

Migraine with Aura:
- Constant headache
- Dry eye sensation
- Light sensitive
- Worse with reading and working on the computer

Tension Type Headache

Medication overuse headache
Headache Types

- Migraine without Aura
- Migraine with Aura:
  - Constant headache
  - Dry eye sensation
  - Light sensitive
  - Worse with reading and working on the computer
- Tension Type Headache
- Medication overuse headache
- Trigeminal Dysphoria Headache
2 patients with horrible dry eye symptoms

• One Myopic LASIK
• One Cataract Implant
2 patients with horrible dry eye symptoms

- One Myopic LASIK
- One Cataract Implant

- Look dry
- Test dry
- Response to dry eye therapy
2 patients with horrible dry eye symptoms

• One Myopic LASIK
• One Cataract Implant

“With these glasses my dry eye feeling is gone”
“Hey Buddy”
Comfortable alignment
Un-Comfortable alignment
Prolonged Work
Trigeminal Nerve Over-Stimulation:

- Dry Eyes
- Eye Strain
- Headache
Trigeminal Nerve Over-Stimulation:

- Dry Eyes
- Eye Strain
- Headache

Trigeminal Dysphoria
Trigeminal Dysphoria Symptoms

- Tired Eyes
- Headache
- Dizziness
- Discomfort with Computer Use
- Dry Eye Sensation
- Stiffness/pain in neck/shoulders
- Light Sensitivity
Hope
A. E. Turviille
The Problem: Near Vision Demands
Clinical Benefit of Contoured Prism?
Clinical Benefit of Contoured Prism?
Clinical Benefit of Contoured Prism?
Standard Prism

Distance

Intermediate

Near
“Buddy we need to automate this measurement to catapult it into this day and age”
Andy and Davis Corley
Revolutionary Technology

Automate the measurement

Variable Distance Prism
neurolens Device: different from traditional testing
neurolens Device: different from traditional testing
neurolens® Value Range

• neurolens Value Range:

90% of patients: larger misalignment at near than at distance.¹

neurolens®
Exciting Data!
Patient Reported Symptom Relief – 90 Day

- 22 participants – inclusion criteria = Qualified as DVS sufferer by validated questionnaire
- 100% positive response to treatment at 90 days
- 86% reported DVS symptoms as “Reduced Substantially” or “Basically Gone”

Digital Vision Syndrome (DVS) Study

Patient Reported Symptom Relief – 90 Day

- 22 participants – inclusion criteria = Qualified as DVS sufferer by validated questionnaire¹
- **100% positive response** to treatment at 90 days
- **86%** reported DVS symptoms as “Reduced Substantially” or “Basically Gone”

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Patient Reported Symptom Relief – 90 Day

- 179 participants – **inclusion criteria = refractory, end-of-line chronic headache**
- 81.6% positive response to treatment at 90 days
- **54%** reported headache symptoms as “Reduced Substantially” or “Basically Gone”
Patient Reported Symptom Relief – 90 Day

- 179 participants – inclusion criteria = refractory, end-of-line chronic headache

  - **81.6% positive response** to treatment at 90 days
  - 54% reported headache symptoms as “Reduced Substantially” or “Basically Gone”
**neurolens users**

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**“Symptomatic response to treatment”**

*n = 360*

<table>
<thead>
<tr>
<th>Symptom Status</th>
<th>% of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basically Gone</td>
<td>15.3%</td>
</tr>
<tr>
<td>Decreased Substantially</td>
<td>57.5%</td>
</tr>
<tr>
<td>Decreased Slightly</td>
<td>20.0%</td>
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<tr>
<td>Unchanged</td>
<td>6.7%</td>
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<td>Increased</td>
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93% of patients have responded positively to wearing neurolenses after purchasing.
"Symptomatic response to treatment"
\[ n = 360 \]

- **Basically Gone**: 15.3%
- **Decreased Substantially**: 57.5%
- **Decreased Slightly**: 20.0%
- **Unchanged**: 6.7%
- **Increased**: 0.6%

93% of patients have responded positively to wearing neurolenses after purchasing.
neurolens users

“Symptomatic response to treatment”
\[n = 360\]

- 93% of patients have responded positively to wearing neurolenses after purchasing

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<td>15.3%</td>
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<tr>
<td>Dramatically</td>
<td>57.5%</td>
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“Willingness to Recommend”
\[n = 360\]

- 82.5% of patients are willing to recommend neurolens technology after purchasing

<table>
<thead>
<tr>
<th>Willingness to Recommend</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>56.4%</td>
</tr>
<tr>
<td>Agree</td>
<td>26.1%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>12.2%</td>
</tr>
<tr>
<td>Disagree</td>
<td>3.6%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1.7%</td>
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</table>
# Population Study Confirms Size & Severity of Problem

## Trigeminal Dysphoria Index

This survey is meant to help your doctor understand what you're experiencing on a regular basis — whether it's caused by your eyes, posture, stress, etc. Your responses will help make sure you receive the best care possible.

### How often do you experience any of these symptoms? Circle one:

#### Headaches
- You get headaches of any severity each week (even just a dull ache counts).
- Your headaches tend to get worse later in the day.
- Your headaches are generally worse at work than they are at home or on weekends.

1. Never  
2. Rarely  
3. Sometimes  
4. Very Often  
5. Always

#### Stiffness / pain in neck / shoulders
- Your neck gets stiff and sore when you work at a computer or read (This might even be true at your desk).  
- You experience frequent tension in your head, neck or shoulders.

1. Never  
2. Rarely  
3. Sometimes  
4. Very Often  
5. Always

#### Discomfort with Computer Use
- You feel like you are more productive at work in the morning vs. the afternoon.  
- Your eyes get tired, burn, or get red easily when you work at a computer for long hours.

1. Never  
2. Rarely  
3. Sometimes  
4. Very Often  
5. Always

#### Tired Eyes
- Your eyes feel fatigued/tired at the end of a workday.  
- Your eyes generally feel better in the morning compared to the end of the day.

1. Never  
2. Rarely  
3. Sometimes  
4. Very Often  
5. Always

#### Dry Eye Sensation
- Your eyes and/or contacts tend to dry out when you are working at a computer or reading.  
- Your eyes progressively feel more dry/sandy/gritty as the day goes on.

1. Never  
2. Rarely  
3. Sometimes  
4. Very Often  
5. Always

#### Light Sensitivity
- Driving at night is difficult because of glare from highlights.  
- Fluorescent lights bother you in large spaces (grocery store, department store, etc.).

1. Never  
2. Rarely  
3. Sometimes  
4. Very Often  
5. Always

#### Dizziness
- Riding in a car gives you motion sickness.  
- You sometimes feel a sensation of vertigo or disorientation from your environment.

1. Never  
2. Rarely  
3. Sometimes  
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#### Discomfort with Computer Use
- You feel like you are more productive at work in the morning vs. the afternoon.  
- Your eyes get tired, burn, or get red easily when you work at a computer for long hours.

1. Never  
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4. Very Often  
5. Always

#### Additional Notes

Any additional notes about these symptoms:

Number of hours per day using a digital device:

1. Never  
2. Rarely  
3. Sometimes  
4. Very Often  
5. Always
Population Study Confirms Size & Severity of Problem

2017 Population study of eye exams

16,732 | 93%
Population Study Confirms Size & Severity of Problem

Trigeminal Dysphoria Index

This survey is meant to help your doctor understand what you’re experiencing on a regular basis — whether it’s caused by your eyes, posture, stress, etc. Your responses will help make sure you receive the best care possible.

How often do you experience any of these symptoms? Circle one:

**Headaches**
- Your eyes feel fatigued/tired at the end of a workday.
- Your eyes generally feel better in the morning compared to the end of the day.

**Stiffness / pain in neck / shoulders**
- Your neck gets stiff when you work at a computer or read (This might even be true for your dad).
- You experience frequent tension in your head, neck, or shoulders.
- You get frequent massages/chiropractic adjustments.

**Discomfort with Computer Use**
- Your eyes feel tired and/or dry at the end of the workday.
- Your eyes/generally feel better in the morning compared to the end of the day.

**Tired Eyes**
- Your eyes feel irritated/tired at the end of a workday.
- Your eyes generally feel better in the morning compared to the end of the day.

**Dry Eye Sensation**
- Your eyes feel dry and/or contacts tend to dry out when you are working at a computer or reading.
- Your eyes progressively feel more dry/sandy/gritty as the day goes on.

**Light Sensitivity**
- Driving at night is difficult because of glare from highlights.
- Your eyes become more sensitive to glare from computer monitors, TV, etc.

**Dizziness**
- Riding in a car gives you motion sickness.
- You sometimes feel a sensation of vertigo or disconnectedness from your environment.

**Additional Notes**
Any additional notes about these symptoms:

FOR PATIENT USE

FOR DOCTOR / STAFF USE

2017 Population study of eye exams

**Trigeminal Dysphoria Index**

Patient Candidacy: 9,358 | 56%

Total number of indexes collected: 16,732 | 93%

Self diagnosed candidates vs. # of patients indexed
Population Study Confirms Size & Severity of Problem

Trigeminal Dysphoria Index

This survey is meant to help your doctor understand what you’re experiencing on a regular basis — whether it’s caused by your eyes, posture, stress, etc. Your responses will help make sure you receive the best care possible.

How often do you experience any of these symptoms? Circle one:

1. Never
2. Rarely
3. Sometimes
4. Very Often
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---

**Headaches**
- Your eyes feel fatigued/tired at the end of a workday.
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**Dry Eye Sensation**
- Your eyes and/or contacts tend to dry out when you are working at a computer or reading.
- Your eyes progressively feel more dry/sandy/gritty as the day goes on.

**Light Sensitivity**
- Driving at night is difficult because of glare from highlights.
- Your eyes feel irritated/burn when you go from a dark room to a bright one (large spaces, grocery store, department store, etc.).

**Dizziness**
- Riding in a car gives you motion sickness.
- You sometimes feel a sensation of vertigo or disconnectedness from your environment.

**Tired Eyes**
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Additional Notes

Any additional notes about these symptoms:

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FOR PATIENT USE

2017 Population study of eye exams

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Patient Candidacy

<table>
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Self diagnosed candidates vs. # of patients indexed

# of Orders placed vs. # of candidates

neuroLens Sales
IOL Market: $6 Billion

Glasses Market: $109 Billion
Thank You!

EyeBRAIN Medical

Eyecare’s Most Revolutionary Optical Solution