



Search

Login

Choose a topic:

- ASCs
- Cataract surgery
- Cornea/External disease
- Glaucoma
- Neuro-sciences
- Oculoplastics
- Ophthalmic business
- Optics/Contact lenses
- Pediatrics/Strabismus
- Practice management
- Refractive surgery
- Regulatory/Legislative
- Retina/Vitreous



### Back To Basics

by Uday Devgan, MD

### Find a Meeting



### podcasts

### RSS

### OSN Video Library

- Subscribe
- Order Article Reprints
- Classified Marketplace
- Submit a Manuscript
- Meet the Editorial Boards
- Advertising Information
- Editorial Policies
- Buy a Book
- About SLACK Inc.
- Contact Us
- Careers

SIGN UP FOR THE



## Neuro-Sciences

Print this page  
 Email this page

OSN SuperSite Breaking News 2/20/2008

### Addressing the brain vs. the eye key to improving visual function

BARCELONA — The key to improving visual function is focusing on patients' brains, rather than their eyes, because visual defects can be improved using specific exercises that exploit the nervous system's ability to adapt and acquire new skills, according to a specialist speaking here.

At the European Society of Cataract and Refractive Surgeons Winter Refractive Surgery Meeting, Michael Belkin, MD, said, "This ability, which we call neural plasticity, has been shown in adults who have recovered from amblyopia after prolonged patching or have spontaneously gained visual lines in one eye when the fellow eye had degraded vision from [age-related macular degeneration], cataract or trauma."

The NeuroVision treatment (NeuroVision Inc.) is based on the repetitive performance of specific visual tasks to stimulate and promote special interaction between specific neurons.

"Enhanced spatial interactions reduce noise levels in neuronal activity and increase signal strength and therefore improve neuronal efficiency inducing improvement of contrast sensitivity function, which induces improvement in visual acuity," Dr. Belkin said.

The NeuroVision treatment program consists of a series of preliminary vision tests followed by computerized analysis of neural inefficiencies. The exercises address specific neural inefficiencies through a series of individualized 30-minute sessions that progressively adjust to individual patient progress.

"A full course normally requires three sessions per week, for a total of approximately 30 sessions. The treatment ends when the patient's vision does not further improve," Dr. Belkin said.

The NeuroVision treatment has been used in clinical trials for conditions such as amblyopia, post-refractive surgery rehabilitation, myopia and presbyopia.

"An increase of 2 D to 2.5 D was achieved in all conditions. Contrast sensitivity at all frequencies improved by 100% or more," Dr. Belkin said. "At 1 year, at least 85% of the improvement is retained."

#### European Society of Cataract and Refractive Surgeons Winter Meeting 2008

- [Toric IOLs mark latest technological advance](#)  
OCULAR SURGERY NEWS EUROPE/ASIA-PACIFIC EDITION April 2008
- [Surgeon reports collagen cross-linking found safe, effective in the long term](#)  
OCULAR SURGERY NEWS EUROPE/ASIA-PACIFIC EDITION March 2008
- [Corneal inlay shows promise for presbyopic correction](#)  
OSN SuperSite Top Story 2/21/2008



[Print this page](#)



[Email this page](#)



[Order article reprints](#)



[Submit a comment](#)

Copyright © 2008 SLACK Incorporated. All rights reserved.