

BYNOCS AmblyGo

BYNOCS
— technology for superior vision

A new generation , revolutionary
cloud-based software for

Remote Management of Adult Amblyopia



Bynocs is a company based in Singapore created by ophthalmologists and optometrists.

+ 4.000 Patients worldwide
+ 500 Clinics



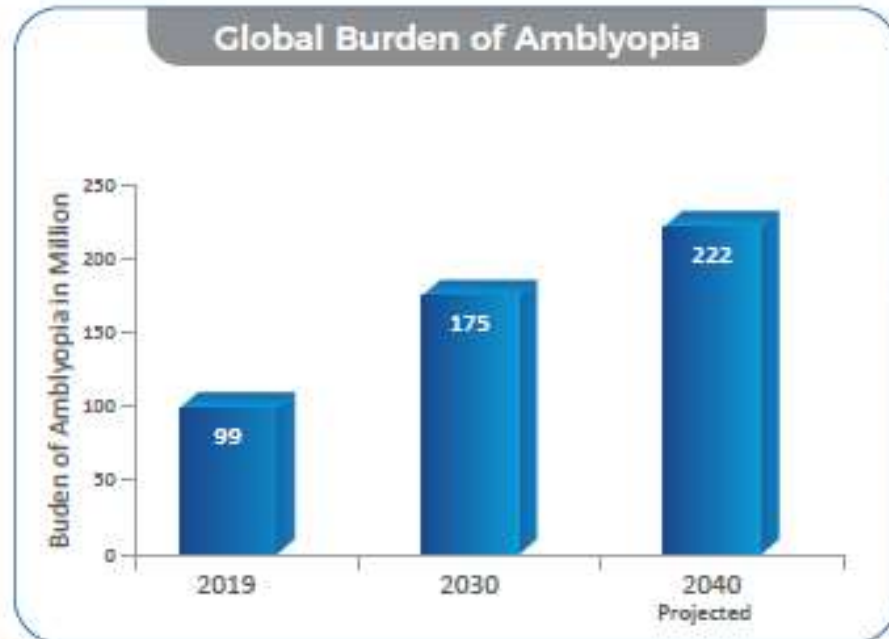
USA – LATAM – EUROPA – ASIA – MIDDLE EAST

Our Medical Advisory Board is made up of doctors with extensive experience and international recognition.



Adult Amblyopia:

Significant Vision Problem worldwide



1-5% of population is suffering with visual impairment due to amblyopia

Highest prevalence of 3.29% in adults >20 years of age

Adult Amblyopia doesn't just affect their sight,
but life's perspective as well!



Current Treatments are ineffective in adults

- Poor compliance
- Residual amblyopia
- Recurrence of amblyopia
- Deficits in stereopsis



However Bynocs dichoptic therapy has changed this...



BYNOCS AmblyGo

A graphic illustration within a blue-bordered rounded rectangle. On the left, a blue speech bubble contains the text "Is there a treatment for adult amblyopia?". To the right, a man in a dark suit is shown from behind, holding up a large red speech bubble. Inside this red bubble is a white checkmark and the text "BYNOCs". The background of the graphic is white with faint blue circular patterns.

Introducing

Patented, Innovative solution to treat Adult Amblyopia

BYNOCS AmblyGo

Trains the brain on dichoptic principle



Contrast adjusted images to both eyes



Normal eye receives lower contrast images compared to amblyopic eye



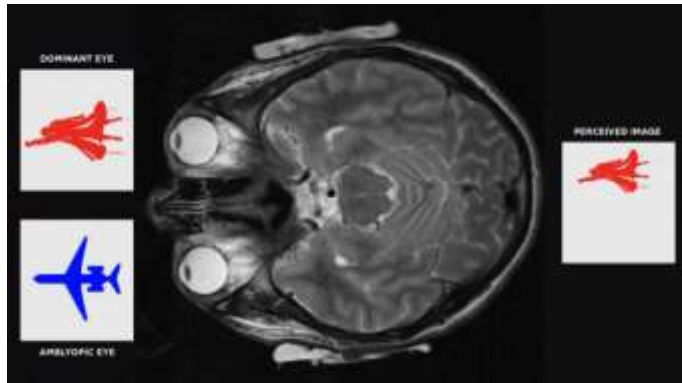
Removes suppression of weaker eye



Results in significant visual improvement of the affected eye



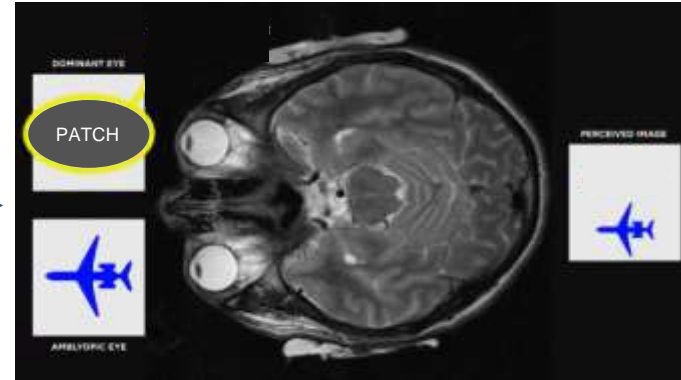
Dichoptic therapy works by...



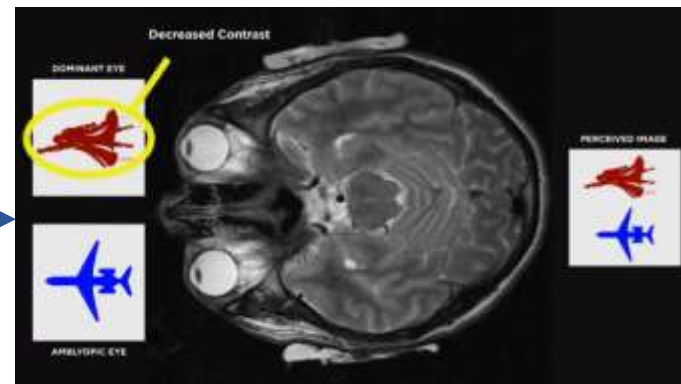
Brain perceives only dominant eye image



Brain perceives only suppressed eye image



1) The glasses allow a perfect dissociation



2) Brain perceives both eyes images



With 2 images you can have 3D vision



BYNOCS AmblyGo

Efficacy that has been proven in multiple clinical studies

Salient Features



Develops & improves stereopsis



Permanent Visual Acuity gain



Effective as primary treatment of Amblyopia



Effective in Refractory Amblyopia



Effective for
all age groups

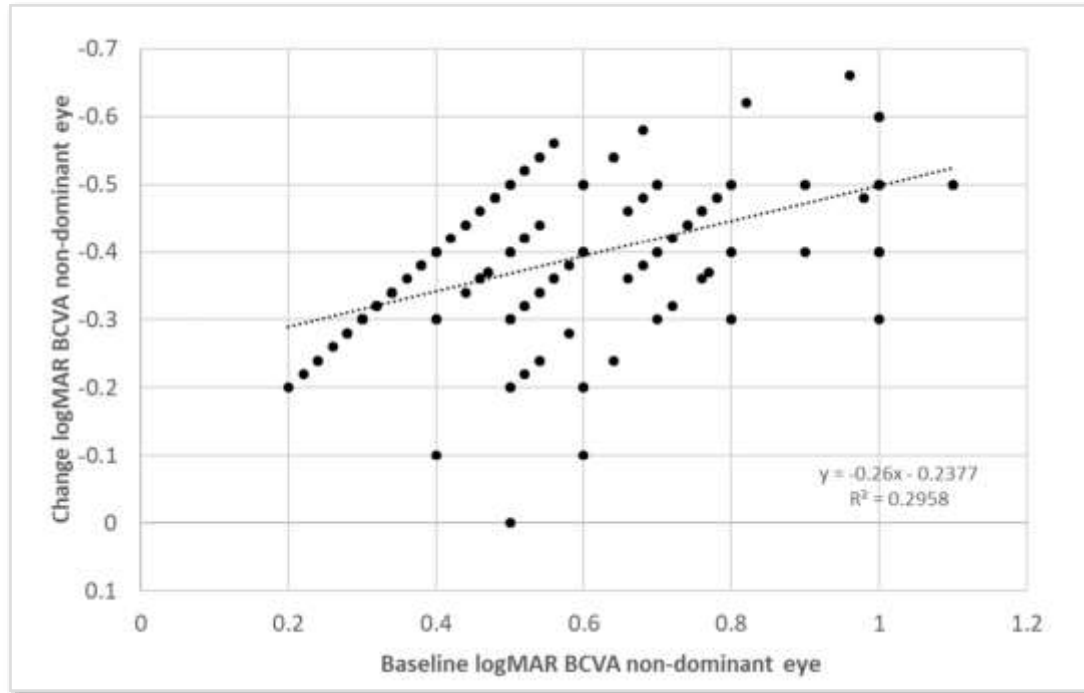


Thousands of
patients have
benefited with

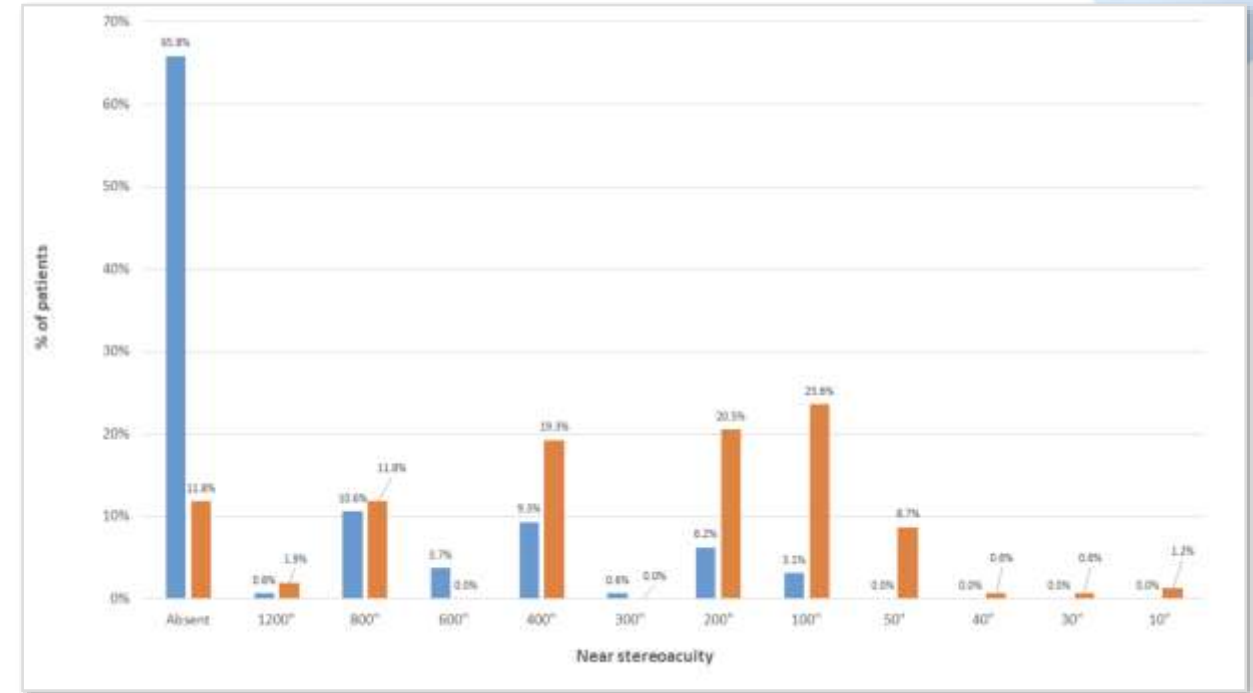
BYNOCS

- Over 4.000 patients
- 4 lines and more
- In a few weeks

Clinical Study – Article published in Brain Sciences Magazine



Scatter plot showing the change in best corrected visual acuity (BCVA) in the non-dominant eye from the baseline BCVA.



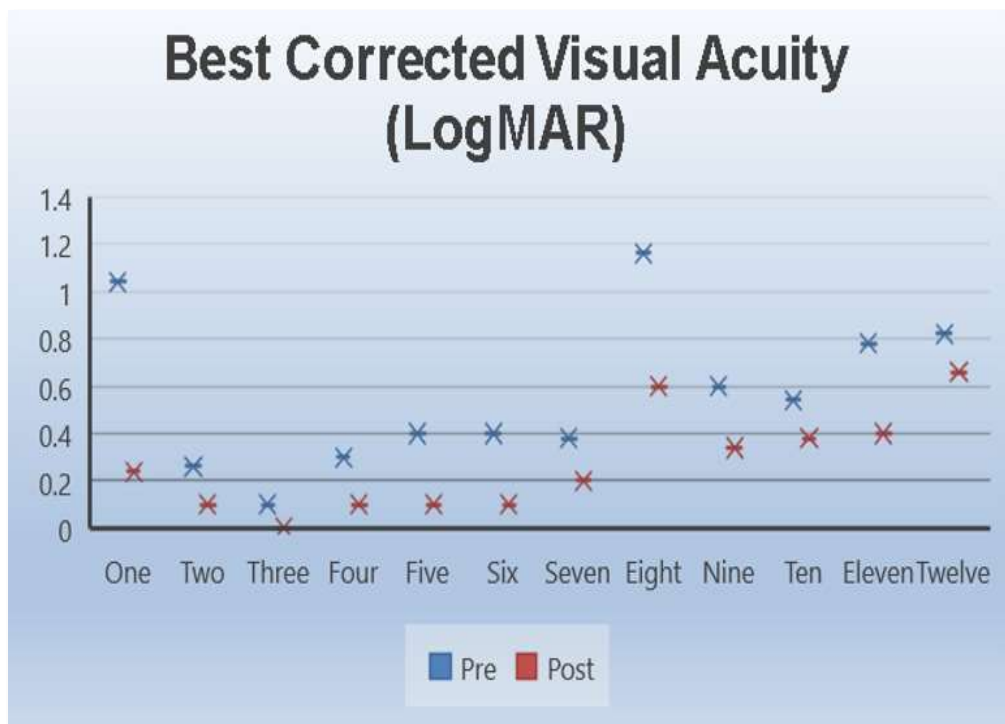
Near Stereoacuity in seconds of arc (pre-and post-therapy)

- 161 subjects (mean: 8.2; SD: 2.5; median: 8.0 years)
- Around 4 LogMAR line visual acuity improvement in 30 sessions
- About 90% subjects developed / improved their fusion and stereopsis

Clinical Study – Additional data



Similar results with adults of 15 - 65 years



Subject	Age	CDVA		BSV		Stereopsis (Randot)	
		Pre	Post	Pre	Post	Pre	Post
One	65	1.04	0.24	Absent	Present	Absent	Absent
Two	19	0.26	0.1	Present	Present	1250	400
Three	58	0.1	0	Present	Present	125	125
Four	41	0.3	0.1	Absent	Present	Absent	125
Five	55	0.4	0.1	Present	Present	Absent	50
Six	59	0.4	0.1	Present	Present	Absent	50
Seven	65	0.38	0.2	Present	Present	Absent	130
Eight	24	1.16	0.6	Present	Present	Absent	1200
Nine	54	0.6	0.34	Present	Present	Absent	400
Ten	63	0.54	0.38	Present	Present	Absent	Absent
Eleven	15	0.78	0.4	Present	Present	Absent	1000
Twelve	48	0.82	0.66	Present	Present	Absent	1200

Published Literature Binocular approach in Amblyopia Treatment

Title: A Game Platform for Treatment of Amblyopia

Author: Benjamin Thompson, Jeffrey R. Blum, Goro Maehara, Robert F. Hess, and Jeremy R. Cooperstock
Published in: IEEE transactions on neural systems and rehabilitation engineering

Title: Outcome Of New Computer Based Binocular Vision Therapy In Residual Amblyopia - A Pilot Study

Author: Kothari Mihir, Vivek Rathod, Abdal Oli Ullah and Lad Shruti
Published in: EC Ophthalmology

Title: Active Vision Therapy For Anisometropic Amblyopia In Children:- A Systematic Review

Author: Carlos J. Hernandez-Rodriguez and David P. Pinero
Published in: Hindawi Journal of Ophthalmology

Title: Stimuli Characteristics & Psychophysical Requirements For Visual Training In Amblyopia: A Narrative Review

Author: Carlos J. Hernandez-Rodriguez, David P. Pinero, Ainhoa Molina-Martin, Leon Morales-Quezada, Dolores de Fez, Luis Leal-Vega, Juan F. Arenillas and Maria Begona Coco-Martin
Published in: Journal of Clinical Medicine

Title: Dichoptic Therapy Improves Visual Acuity In Residual Amblyopia - A Prospective Trial

Author: Md Oliullah Abdal, M. Opt, Faiza Bhombal, B.Opt, Shruti Lad B.Opt, Sonia Nankani, MS, Gul Nankani, MS
Published in: 2019 - 3rd World Congress of Optometry

Title: Effect Of Dichoptic Video Game Treatment On Mild Amblyopia - A Pilot Study

Author: Peter C. K. Pang, Carly S. Y. Lam, Robert F. Hess and Benjamin Thompson
Published in: Acta Ophthalmologica 2020

Title: Amblyopia And The Binocular Approach To Its Therapy

Author: Robert F. Hess, Benjamin Thompson
Published in: Vision Research (2015)

Title: Randomized Trial Of Binocular Dig Rush Game Treatment For Amblyopia In Children Aged 7 To 12 Years

Author: Jonathan M. Holmes, BM, BCh, Ruth E. Manny, OD, PhD, Elizabeth L. Lazar, MS, MPH, Eileen E. Birch, PhD, Krista R. Kelly, PhD, Allison I. Summers, OD, MCR, Stacy R. Martinson, OD, Aparna Raghuram, OD, PhD, Jeffrey D. Colburn, MD, Christine Law, MD, Justin D. Marsh, MD, Derek P. Bitner, MD, Raymond T. Kraker, MSPH David K. Wallace, MD, MPH
Published in: American Academy of Ophthalmology

A collaborative telehealth solution

Between the clinic and Bynocs

On site at the Clinic

Before and after Bynocs training:
Eye examination with an
ophthalmologist



Remotely with Bynocs

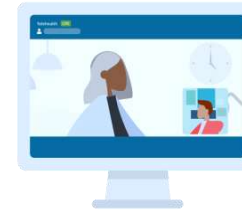
Assessment and training with our
optometrists





On site at the Clinic Ophthalmologist

- 1 Initial Eye examination
- 2 Diagnosis
- 3 Recommendation Bynocs
- 4 Training with patients
- 5 Improvement evaluation every 10 sessions
- 6 Final assessment and report
- 7 Final Eye examination
- 8 End of treatment confirmation



Remotely with Bynocs Optometrists / Orthoptists

- 4 Training with patients
- 5 Improvement evaluation every 10 sessions
- 6 Final assessment and report

Based on the latest generation technology

It is a therapy based on dichoptic exercises using anaglyph glasses.

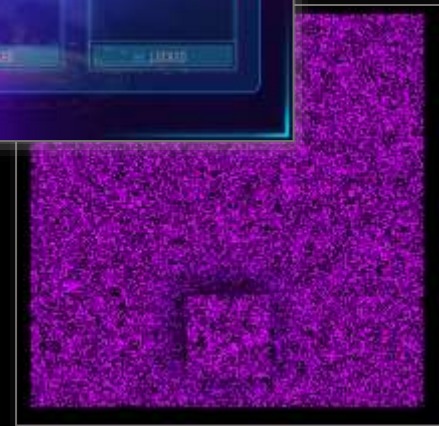
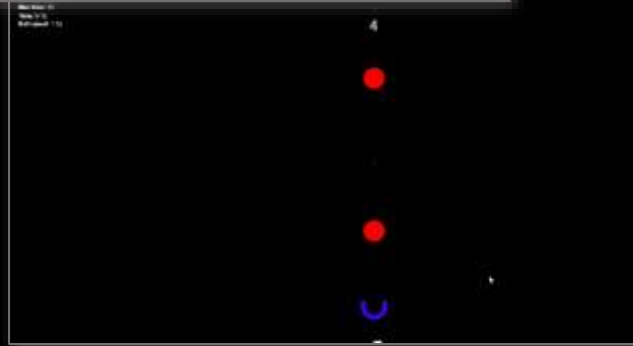
The patient perform:

- > 30 min of exercises per day
- > 5 days per week
- > During an average of 6 to 8 weeks for a mild amblyopia



Bynocs offers a variety of exercises depending on the need of patient

Funny game based exercises generate a great compliance to the treatment



Patient's selection

AmblyGo can suits different kind of patients



Children

From 6 to 8 / 10 yo

Alternative to patching

Adolescents and Adults

From 10 to 40 yo

Patients who were not detected or with residual amblyopia

Adults

Above 40 yo

Patients who want refractive surgery in both eyes

Patient's criteria

We can help patients who meet the following criteria:

Foveal fixation

Squint
Deviation under 10 dioptres

No comorbidity factors
(Retina detachment, nystagmus, glaucoma, etc...)

Visual Acuity
Above 0.10 decimal (6/60)

Advantages of Bynocs

For the patients:

- > The average improvement is about 4 LogMAR lines
- > No age limit, we can help children and adults
- > In a few weeks, without regression
- > We commit on the expected results before starting



Advantages of Bynocs

Easy to implement in the clinic:

- > No investment required
- > Bynocs team take care of the training
- > The patient perform exercises and assessment remotely
- > We provide all the tools to do the follow-up

