1st Relative Foveal Dark Adaptation measures recovery time from light bleaching of the Center Macular Fovea.

Relative Foveal Dark Adaptation measures recovery time from light bleaching of the center macula. The extension of recovery time occurs with disease and age.

MIAMI BEACH, FL, UNITED STATES, January 15, 2026 /EINPresswire.com/ -- Relative Foveal Dark Adaptation: A Potential Method for Assessing Macular Health.
by Albert J. Hofeldt, MD.

In EYE Journal of Nature's Magazine, authored by J S Kane, M Gaspich, A Gold, H Pichardo, S A Kane, is viewable at: Eye; https://doi.org/10.1038/s41433-024-03201-2. This study monitored by Pediatric Ophthalmologist, S A Kane, PhD, MD of Columbia University using MacDx.pro developed by AMA Optics, Inc. is a novel method for measuring dark adaptation of foveal cones relative to perifoveal rods and cones that utilizes the shift of a visual anchor at the endpoint after a recovery period to normal vision. In the study, relative foveal dark adaptation was studied in 6 normal subjects ranging in age from 20 to 81 years and across differing testing conditions. Testing time in normal subjects was typically less than a minute per test. An anchor shifting endpoint from surround to center of a bullseye stimulus following 30 seconds of foveal bleaching was reproducible and unaffected by ambient room lighting, pupil size, and light attenuation. Repeat, sequential testing was similarly reproducible except after long bleaching times. This paradigm more directly assesses macular health than currently available methods of dark adaptation that assess peripheral retinal health. Foveal dark adaptation is intuitive and reproducible, and testing times are brief, requiring only an iPhone screen positioned at reading distance. Relative foveal dark adaptation may be a useful tool to assess macular health. One case of cystoid macular edema post-cataract was detected and treated in the study.

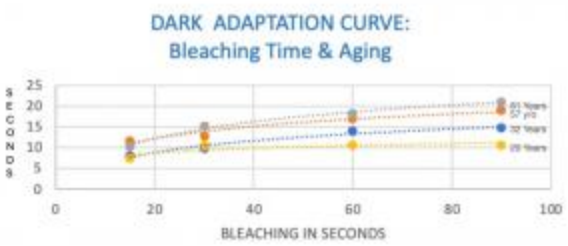
> **Relative foveal dark adaptation may be a useful tool to assess macular health. One case of cystoid macular edema post-cataract was detected and treated in the study."**
> *— Steven A. Kane, PhD, MD.*

AMA Optics, Inc. the developer of the MacDx.pro app allowed this group to use this app to test this app in a controlled study in normal patients and document the increased recovery time of a patient with cystoid macular edema after cataract surgery and record the recovery time following treatment of anti-inflammatory medication to recovery of normal acuity.

The use of a remote iPhone to measure Foveal Dark Adaptation with the lack of disparity due to testing factors of ambient room lighting, pupil size and light attenuation makes personal testing on an iPhone capable of diagnosing foveal testing of the macular as a powerful means of confirming healthy macula verses abnormal macula, the first means of screening for macular disease at home or outside the doctors office. The first published discovery of measuring foveal dark adaptation was achieved at Columbia University in 1921 by Selig Hecht taking 1.5 hours to test and some difficulty with pupil size

iPhone at ENDPOINT, White Center Disc, Recovery Recorded.

The Vision Testing Company,: Patents, Manufacture, & App development



and room lighting, At 100 years Hecht's report, the US Patent 9,089,257 of MacDx.pro app. was allowed to Albert Hofeldt, MD of AMA Optics, Inc.

Four people of difference ages are bleached for 15, 30, 60 and 90 seconds.

Currently available for clinicians is the prediction of retinal dark adaptation.
The current method is to bleach a non-macular area and measure the recovery of that retina, a method impossible to measure the current macula or foveal dark adaptation. Studies have predicted possible later development of macular disease.

In USA there are 35 million diabetics and 22 million with AMD retinopathy, these patients are those that could benefit from screening remote Fovea Dark Adaptation[1] testing. CPT code is 92284 for certified testers, billing as advised by your provider. The devices: Federal Drug Authority, Product Code QUM, #886.1050, AMA Optics, Inc.

Downloading Those wishing testing help, please call 305 538 7696 (AMA Optics, Inc.)

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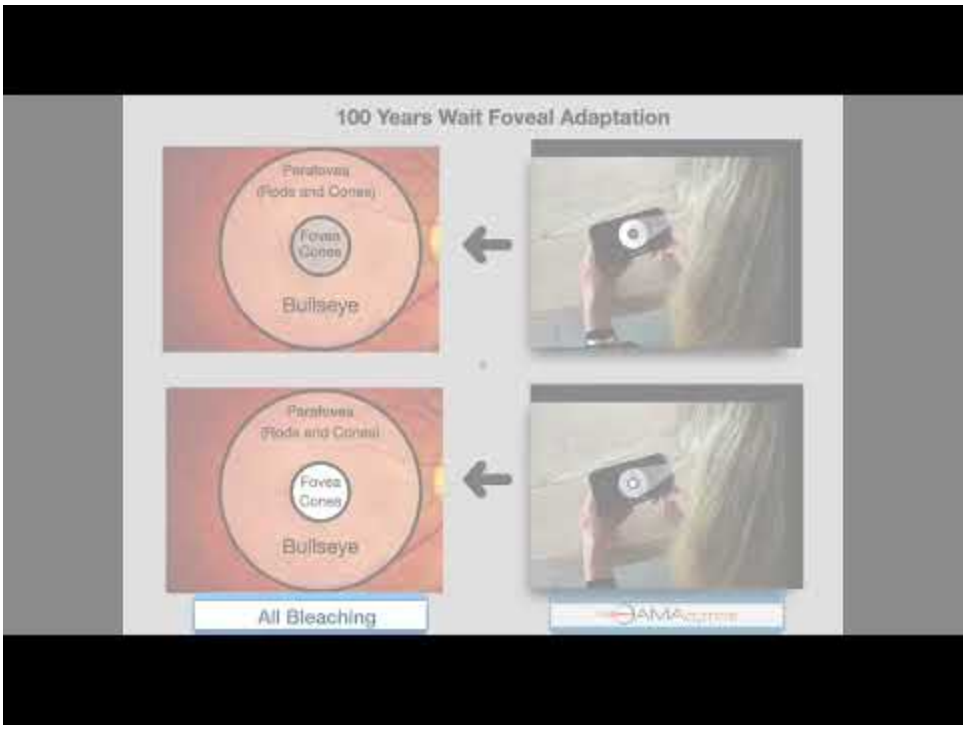

[1] https://www.amaoptics.com
[2] https://www.visionperformance.store/diseases
[3] https://www.visionperformance.store/tutorial

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