

FRIENDS OF NEUROVISUAL TRAINING NEWSLETTER.

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Introduction.

In this week's Issue of the Friends of NeuroVisual Training Newsletter, we will be diving into one of our favorite devices that we use for multiple NVT exercises, the Dynavision D2™, manufactured by Dynavision International, LLC. This device is used as a platform for several engaging NVT exercises, as well as contains a plethora of options within the device itself.

There have also been numerous studies assessing the reliability of the Dynavision's ability to capture and report metrics relating to a participant's eye-hand coordination, as well as the participants visual and motor reaction time. We are excited to share our philosophy on the use of the Dynavision D2™ device, and to complement this content, our "How To" will also be featuring our protocol for a program we've developed that isn't preprogrammed on the D2™, which is called "Inner 3 Rings, Red Right, Green Left", as well as the instructions on how to program it into the device.

As always, we appreciate your continued support and interest in NeuroVisual Training.

Using the Dynavision D2™ Device for NVT.

The Dynavision D2™ performance training device is a great tool that links physical training and mental conditioning through the use of its interactive light-button board, paired with its tachistoscope (t-scope; like an electronic flashcard). This state-of-the-art technology is a staple of neuro-visual training at the University of Cincinnati and is incorporated in approximately 50% of the NVT program at UC. It provides the participant the ability to perform a fun, 3D interactive, competitive cognitive exercise, which can be easily seen to translate to on field performance. The Dynavision D2™ is designed to help improve both visual and motor reaction times, as well as eye-hand coordination. The results from the D2™ software programs allow the testers and users to keep track of the participants individual metrics as they are scored.

The D2™ technology has been used to train and improve the cognitive performance of athletes as well as patients post-traumatic brain injury. This performance increase is achieved through the improved communication between the eye's ability to send information to the brain's visual processing circuitry. This can lead to improved peripheral visual awareness, through training on the outer rings of the Dynavision D2™, as well as better eye-hand coordination through the tactile task of hitting the 64 light buttons after it has been recognized to be lit in your peripheral vision. Ultimately, the results from time spent training on the D2™ translate to better on-field performance through the improved speed and efficiency of an athlete's skill in processing the high speed and complex visual information encountered in their sport.

For NVT, there are benefits of training with the D2™ for coaches, players, and the trainers. Coaches benefit by being able to better analyze each individual player's peripheral vision, ability to multitask, and the players discipline to stay focused on their primary task with distractions. Also, the D2™ creates healthy competition between teammates while simultaneously training their vision. The screen in the center of the D2™ aids in the multi-tasking and brain training consistent with the ethos of neuro visual training.

The D2™ trains players mentally in combination with a physical component, just like what is required for an athlete to succeed during game day. This training can help their on-field decision making through the development of more efficient visual processing and improved peripheral visual awareness. As for the trainers, the D2™ helps with the specific analysis of their players, including weaknesses and the visual field correlates that match with the four quadrants and rings of the device. Also, as the customizability of the D2™ software programs, trainers are provided the opportunity to customize specific programs for targeted training.

The flexibility of the programming of the D2™ means that when working with a patient and one spots a deficiency or anomaly it is often possible to change the program on the fly to assess the patient. Therapists often modify drills based on client needs and the D2™ allows that to occur quickly. Also, when working with a client regularly they often want to show and see improvement on some of the drills, the scoring of the drills aids in providing positive reinforcement to the patient or client as well as spotting changes should they occur. Most of the programs will automatically show plots of progress that will reinforce the gains people have made.

As far as a post injury rehab device the D2™ is often seen as one of the fun aspects of the rehab in that it is game like.

“How To” – Dynavision D2™: Inner 3 Rings, Red Right, Green Left Program.

A theme for this newsletter is neuro, which is implying brain training. Eye hand coordination requires brain activity and that activity can be trained with increases in

proficiency. For many sporting and life activities Go, No-Go decisions can be critical to the success of the activity. From a neurologic perspective the dichotomy of the Go, No-Go decision is centered around the activity of the frontal lobe. The drill being discussed herein is the Red Right, Green Left program on the D2™. This drill has people hit the red buttons with the right hand and the green buttons with the left hand. While it may sound simple this is a frontal lobe exercise because it is very common for people to “want” to hit the button with the closest or easiest hand. However, the NO-GO decision to hit the button with the correct hand trains the individual to engage the frontal lobe by using the correct hand. It is a form of discipline training supporting activities related to Go, No-Go.

How to Perform “Inner 3 Rings, Red Right, Green Left” Program:

1. Orient the participant so that they are able to see the entire board within their entire visual field (both central and peripheral visual field) and so that they are able to reach every button on the Dynavision without much lower body movement.
2. The only active buttons will be the inner 3 rings of the Dynavision board.
3. For this exercise, there will be a 1-minute time limit. The goal is to hit as many buttons as possible within that 1-minute time frame.
4. Both red and green buttons will appear in a random order.
5. When a red button appears, the participant will strike the red button with their RIGHT hand.
6. When a green button appears, the participant will strike the green button with their LEFT hand.
7. After the 1-minute time limit has expired, record the number of red buttons hit and the number of green buttons hit.
8. That concludes the exercise.
9. **PROGRESSIONS:** Pinhole Glasses, Two-Colored Glasses, & Flashcards

How to Program “Inner 3 Rings, Red Right, Green Left” into Dynavision D2™:

1. Click “Add Program”
2. In the upper left quadrant, under “Mode”, select “Reactive”
3. In the center under “Lights”, change “Speed” to 5.0 seconds, “Green Lights” to 50%, and “Green Area” to Full (if not already selected)
4. Under “Select Quadrants” on the right of the display, make sure all four quadrants are selected and ONLY 1, 2, and 3 ring levels are selected.
5. Make sure “T-Scope Option” is off and the “Run Time” is set for 60 seconds.
6. Click “Save/Rename Program” as Inner 3 Rings, Red Right, Green Left

Announcements.

If interested in the Dynavision D2™ device, please visit the following website: www.dynavisioninternational.com. For more information, please feel free to reach out to info@dynavisioninternational.com

If interested in any NVT products, Inneuractive's store can be accessed via the following link: <https://inneuractive.square.site/>. If specifically interested in any customized NVT products, please feel free to reach out to us and/or click the following link for more details: https://inneuractive.square.site.

Please check it out and provide any and all feedback to Jon Vincent, at jvincent@inneuractive.com. Constructive criticism is an integral part to helping Inneuractive grow, so it is very appreciated.

In other news, the #8 nationally ranked UC Bearcats had a nice break and bye week last week. Unfortunately, their game with Tulsa has been postponed to December 5th. The next game is away scheduled for Oct 24th against SMU.

As always, if there are any questions, comments, or concerns please feel free to reach out to Dr. Joe Clark at clarkjf@gmail.com and please visit www.inneuractive.com for more information on NVT, available NVT products, and NVT services.

Disclaimer.

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