FRIENDS OF NEUROVISUAL TRAINING NEWSLETTER. ISSUE 2, VOLUME 1.

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Introduction.

The response to Issue 1, Volume 1 of the Friends of NeuroVisual Training Newsletter was very pleasing. Thanks for participating, posting, tweeting et cetera. Please remember you can follow us on Twitter and Facebook at @FriendsOfNVT and Friends of NeuroVisual Training respectively. The newsletter will be hosted and archived on www.inneuractive.com/friends-of-nvt. Just click on the date for each issue. For now, we'll try to have a newsletter drop each week on Thursday.

If you have questions or suggestions for future issues, please communicate with us through social media, by tweeting at @FriendsOfNVT or by emailing clarkjf@gmail.com. We'll answer questions here as space provides and make every effort to get back to you directly.

Today's issue of the Friends of NeuroVisual Training Newsletter we will be interviewing Dr. Joseph F. Clark, Professor of Neurology and Rehabilitation medicine at the University of Cincinnati.

Q. Tell us about yourself and how you got into doing NVT for the University of Cincinnati.

I've been at the University of Cincinnati as a Professor of Neurology and Rehabilitation Medicine since 2000. I have training in neurophysiology, neurodiagnostics and neurorehabilitation. I'm also a certified athletic trainer. So, I have an eclectic background of Neurology and Sports Medicine. Around 2009 when the concussion problem was expanding the people in Sports Medicine had me enhance their concussion program. This included NVT to prevent concussions, and it is a great way to prevent injury as well as improve performance. NVT effectively marries my two skill sets plus it is very rewarding.

Q. What sports or activities could benefit from NVT?

A lot of sports and activities could benefit from NeuroVisual Training. NVT can improve eye hand coordination as well as speed of decision making. Essentially all ball sports would benefit from NVT, as would many combat sports like Boxing and MMA. Military-like activities including SWAT, Special forces, Police, Ambulance, Fire, Hazmat would

see benefits with NVT as well. For these sports and activities, the performance of those individuals would be improved following NVT.

We've also seen anecdotal benefits of NVT with academic performance. We use the expression study endurance with our student athletes. We've found that students who do NVT claim to have better study endurance. They can stay on task longer and better with regard to their study demands, such as getting more information off of powerpoint slides.

Q. How long does it take to see benefits from doing NVT?

That is highly variable. It depends upon if it is individual training, team training, and what the person's baseline proficiencies are. They all impact how long it takes to see benefits. Say for example we are working with athletes as part of a team's pre-season conditioning. We would want to start NVT when pre-season conditioning starts. Most teams have 5 or 6 weeks of pre-season organized practices and that is what we would ask for. We usually start getting reports that the NVT is doing something after about 3 weeks of structured and consistent training. So, we infer that benefits can start to be seen in about 3 weeks.

Q. Are there risks or contraindications to doing NVT?

That is a very important question and needs to be emphasized. The answer is yes. When we are considering doing NVT with someone they are seen by a qualified Optometrist to make sure their eyes are ready to do NVT. They are also seen by a neuro trained NVT specialist where we do a thorough baseline evaluation to identify proficiencies and deficiencies. We do all this for many reasons. The two big reasons we are concerned with is pre-existing conditions such as a "weak eye*" or seizure disorder. Neither condition would automatically exclude someone from NVT or even the field of play, but it would cause us to be cautious about what exercises we did.

If you go to a vision trainer who claims to do NVT or traditional sports vison training and they do cookie cutter training (everyone gets the same thing), please walk away. Everyone is different and your NVT should be what you need, not what everyone else gets.

Regarding "risks" we do have people complain of eye pain and fatigue after NVT sessions. Many times this is due to the eye muscles experiencing Delayed Onset Muscle Soreness (DOMS). Sports medicine practitioners and strength coaches are familiar with DOMS and we in the NVT world embrace a certain amount of DOMS as it shows the NVT is working the eye muscles. Obviously if the discomfort is prolonged or impacting quality of life, we would address that.

Q. How do you learn how to become a NeuroVisual Trainer?

If someone is interested in learning how to become a NeuroVisual Trainer they have several options. You could go to Optometry school. They teach a lot of vison training

and many teach the neuro part as well. Remember there is sports NVT as well as post brain injury or disease NVT and optometry may teach you to address both.

The University of Cincinnati has been teaching people to do NVT for several years and they have several programs that help teach NVT.

The Carrick Institute has online and in person classes as well as an extensive functional neurology program that includes a lot of NVT principles.

The company Inneuractive has training programs as well as instructional content to teach NVT. They do not confer degrees but do provide content, material and educational resources.

Q. How much time does it take to do the NVT?

That depends upon a lot of things. If you are training someone who has never done NVT it takes time for them to become proficient in the tasks. It is like learning good form when lifting weights. When doing NVT on a whole team, once they are proficient we have had success with training programs like the following:

Three times a week, >20 minutes each time.

Twice a week, >30 minutes each time.

With these we are shooting for 5 weeks of training. During the season we have a maintenance phase where we do NVT once per week for 30 minutes per session.

Q. What happens if you do not keep up the NVT? Do the benefits go away?

Yes, the benefits do go away, just as they would if you stopped your strength and conditioning routine. For example, if we've been doing NVT with the baseball team and they go on summer break when they come back they have most likely lost most of the NVT benefits. However, it does appear that they improve faster and the year to year improvement does accumulate. So in the 3 or 4 months between seasons for baseball much of the NVT is lost.

Q. How could a motivated individual with limited access to equipment get started doing NVT?

If you are talking about a single athlete who works out on their own, I would suggest first going to a good optometrist, and get a thorough eye exam and make sure you're ready for NVT. The optometrist might have some exercises for you to get started. Then I would start learning from some of the free materials that are out there. There are instructional papers, references supplied at the end of this interview. Once you have a little bit of knowledge start asking people with experience what they suggest concerning exercises for you. Also, there are webinars and classes offered by the University of Cincinnati and the Carrick Institute. NovaCare physical therapy offices sometimes have sports vision trainers who can do the NVT as well as teach you to do it yourself. Check out the local resources.

Inneuractive.com has educational resources as well as course materials. If you are able to purchase some equipment, Inneuractive can sell equipment and provides the appropriate instructions for how to use those NVT equipment.

Q. If you were stuck on a deserted Island and had to do NVT for a football team, and you could only have ONE thing to do NVT, what would you use?

That is a great question. There are a lot of NVT tools and products, but they all have strengths and weaknesses. Some of the commercial programs and systems are awesome, but often they are computer based or 2 dimensional and that is too limited to do what we like to accomplish with NVT. Computer based systems often can't adequately address the 3 pillars (see Issue 1, Volume 1 of this newsletter for more details). My answer is to beg forgiveness and respond with an answer of TWO things: The two things I would want are unlimited supplies of BOTH, paper and colored markers. With some time and creativity I could make a ton of NVT exercises with just those two things. Thinking about the list of things I could make, they are; Saccades, Near Far, Colored Balls, Marsden Balls, Stroop, Flash cards, Mock Tachistoscope, Brock String (like activity), agility drills, Peripheral vison sheets, Fill in the blank, Memory cards, eye discipline, tracking, and combinations of those listed above.

The message to be garnered from the last answer is if you want to be an NVT trainer or start your own NVT training it may not take a lot of equipment. It may take imagination and creativity.

*Please note "weak eye" means a lot of things. It is intentionally used as a nonspecific catch all here.

References:
Inneuractive for NVT teaching at www.Inneuractive.com
Carrick Institute at www.carrickinstitute.com
Clark references:
https://www.jove.com/video/52648/vision-training-methods-for-sports-concussion-mitigation
http://www.jsapv.com/index.php/JOVP/article/view/4
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0029109

Announcements.

New Publication Entitled: "A Test Panel to Assess and Document an Absence of Concussion Signs for Sports-Related Concussion"

This peer-reviewed publication, first authored by Jon Vincent, posits a novel testing battery used to aid athletic trainers in documenting an absence of suspicious concussive injury. The totality of the assessment was named the Absence of Suspicion Tool, or the AOST. The methods of each individual test are well established, however

when grouped together, the AOST panel can be used to assess AND document that an athlete does not demonstrate a suspicion of a concussion. This documentation aids the athletic trainer and sports medicine practitioner in making safe return to sport decisions.

The paper can be found at the journal's website by clicking the following link: http://www.jsapv.com/index.php/JOVP/article/view/6 or can be viewed on Inneuractive's website by clicking the following link: www.inneuractive.com/publications. Thank you to everyone who helped make this possible.
