COGNITION
BY ORGANO™

FAQs

What is NeuroTrackerX?

NeuroTrackerX is a cognitive training tool that challenges you to track multiple targets moving in 3D space. It adapts movement speed and complexity in a way that optimally trains your high-level mental abilities.

What is cognitive training?

Cognitive training is a form of exercise for the brain that is designed to improve mental abilities such as memory, attention, decision-making and awareness.

Who can benefit from NeuroTrackerX?

Scientific studies show that NeuroTrackerX is beneficial for assessing and improving performance for athletes, personnel, healthy aging, people with cognitive related medical conditions, college students and children with learning difficulties. However, because NeuroTracker improves high-level mental abilities, it can be used by anyone looking to improve their mental performance.

What is special about NeuroTrackerX's cognitive training?

NeuroTrackerX differentiates itself from other cognitive training programs on the market with its scientific evidence of rapid improvements across many high-level cognitive abilities and transfer to human performance.

Rapid improvement: Even with minimal training, users quickly see mental improvements. Just 18 minutes of training per week can robustly improve high-level cognitive abilities such as attention, executive function, working memory and processing speed. Most users experience positive results with just 1.5 to 3 hours of distributed training.

Transfer to human performance: In science, 'far transfer' is considered the gold-standard of research. Individuals using NeuroTracker experienced mental improvements not only in their training program, but also in non-related tasks e.g. *passing accuracy in competitive play*.

What is attention?

Attention is the concentration on and awareness of specific information going on inside our head, or environment, while ignoring distractions. In sports, for instance, it's paramount to focus on a key play opportunity and ignore distractions coming at you.

What is executive function?

Executive functions are skills that everyone uses to plan, organize, prioritize and act on information. It is important for controlling overly impulsive or emotional behaviour and is useful for flexible thinking, e.g. making tactful plays in sports or using learned information to solve a math problem.

What is working memory?
Working memory is the part of short-term memory that helps you hold on to key information and manipulate it, e.g. thinking of several things at once in order to solve a problem. It plays an important role in concentration during complex situations.

What is processing speed?
Processing speed is the rate at which you take in information, make sense of it and begin to respond. Information can be visual, such as letters and numbers, and auditory, such as spoken language. In sports, your ability to interpret a visual scene quickly may determine whether you win or lose.

How does NeuroTracker work?
With NeuroTracker, each user is asked to complete a 3D visual exercise. In this exercise, users see 8 yellow balls moving around their screen. They are asked to track the highlighted balls. NeuroTracker's visual exercise uses 3D multiple object tracking technology which has been scientifically shown to enhance cognitive functions.

Why does NeuroTrackerX use 3D technology?
We live in a 3D world. As a result, our technology is designed to simulate a real world environment to best benefit the brain. Multiple studies have shown that 3D stimulation engages parts of the brain that are not activated with 2D stimulation.

Can any 3D glasses be used?
We developed Anaglyph 3D glasses specifically for NeuroTrackerX. Our glasses were tested in a lab to optimize viewing quality and ensure durability for comfortable, long-lasting wear. They are also built to fit over regular prescription glasses. If using 3rd party Anaglyph 3D glasses, you will need to change the Anaglyph settings in your User Dashboard.

Is NeuroTrackerX suitable for all ages?
Yes, NeuroTracker has no age restrictions. It important to note, however, that children become more proficient at training with increasing age. In addition, an individual has to understand the objective of the task; tracking and selecting targets. It could also be helpful to see a specialist who uses NeuroTracker to determine a specialist training plan.

How can I train effectively on NeuroTrackerX
It's best to do all your NeuroTracker Core program while sitting – depending on your program, standing and balancing positions will come in later phases of training. Training is also more effective when performed regularly over time, but training more than 3 times per day is not recommended. This is because sleep is needed in between training for your brain to be able to absorb the benefits efficiently.

Where should I look while training?
To help you spread your attention effectively, loosely keep your gaze around the bright dot in the middle of screen. This helps you use your brain, and peripheral vision to track all the targets at the same time.

How far away should I sit from the screen?

NeuroTracker provides benefits by testing your peripheral vision with target tracking across a wide field of view. As an approximate guide, the distance between your eyes and your display should be around the same as the size of the display. For example, with a 17 inch laptop your eyes should be around 17-inches away from the screen. With your NeuroTracker glasses, you can also judge this by being close enough so that the display takes up about 50% of the height of the lenses.

What does my speed mean?

Following completion of a session, you will be presented with a speed. This represents the upper limits of the speed at which you can successfully track all targets about 50% of the time. It is a combined measure of your attention, working memory, information processing speed, and executive functions - all of which are needed for success in school, work, athletics and elite performance. It is expected that your speed will fluctuate depending on a number of factors including sleep, stress, motivation, fatigue, physical activity and so on.

Do not be discouraged if you have sessions that are below your normal speeds. What's more important is that you are improving with time! Like lifting weights in the gym, an increase in your NeuroTracker ability is a direct translation to strengthening and improving your "mental muscles". There is minimal strategy or practice effects to NeuroTracker,and as such, your improvements with training are not due to anything but improvements in brain function.

What are the system requirements for running NeuroTracker?

Minimum:
OS: MacOS High Sierra or Windows 10.
CPU: Intel I-5 Processor
RAM: 8GB
Storage Space: 5GB

Recommended:
OS: MacOS Catalina or Windows 10
CPU: Intel I-7 Processor
GPU: NVIDIA GeForce GT 640
RAM: 12GB
Storage Space: 5GB

In addition to the above, you must also have a stable internet connection.

Can multiple people use the same NeuroTrackerX account?

No. When you sign up for a program, it becomes customized to you and adapts to your personal mental abilities. It is intended to track your personal progress and ensure that your training sessions are optimized each time. Each person has a different performance level and mental threshold.