NeuroTracker FAQ – Athletes

CogniSens, Inc.

Q. What is NeuroTracker?
A. NeuroTracker is a tool to train awareness and focus, which are the mental skills you need to make effective decisions on the field. NeuroTracker is used by some of the most elite teams in sports, and the science is real. In team sports, players have to keep track of their teammates, their opponents, and the ball – all at the same time. NeuroTracker is a way to isolate and train these key skills in short, 5 minute sessions.

Q. How does NeuroTracker work?
A. NeuroTracker trains awareness and focus using a method called “3D Multiple Object Tracking”. You are presented with 8 yellow balls in a virtual cube. 4 of the balls flash orange – those are your targets. Your goal is to track your targets and ignore the decoys. After you’ve seen your targets identified, all the balls start bouncing around the cube. This lasts eight seconds. At the end of eight seconds, all the balls stop moving and you have to identify your original four targets. If you are correct, NeuroTracker speeds up to increase the difficulty. If you are incorrect, the speed goes down. Each session has 20 repetitions at eight seconds each.

During NeuroTracker training, the brain must make complex predictions of where the objects will end up just moments into the future. When objects cross in front of one another, it adds another layer of complexity because the brain has to use its working memory to infer the hidden object’s motion while it is out of sight.

Q. What are the benefits, say, for a quarterback training with NeuroTracker?
A. Better awareness and focus means you will notice opportunities to make big plays, and – just as important – opportunities to shut down opponents’ big plays before they happen. Quarterbacks’ brains, specifically, are called upon to do incredibly complex motion predictions on the fly during a play. It is not enough to know where the receivers and defensive backs are now – the quarterback needs to be able to anticipate where they will be when the ball arrives. NeuroTracker specifically trains motion prediction, making it an ideal tool for all athletes.

Q. Does NeuroTracker training transfer to the field?
A. Yes. Over the past five years, we have seen the evidence keep piling up. We’ve seen the evidence in elite teams, and in the lab. In 2010, the Vancouver Canucks adopted NeuroTracker and had one of the most dominant seasons a hockey team has ever had (with the same coach and core group of players). In 2011, rugby coaches at the French Federation of Rugby rated NeuroTracker-trained players significantly higher than non-NeuroTracker players without knowing which athletes had had the training. In 2014, we showed that NeuroTracker improved soccer passing accuracy by over 20% in university-level athletes. The brain is the most adaptive organ in the body – it should be no surprise that cognitive training has big effects.

Q. How soon will I see results?
A. The most significant gains from NeuroTracker training take place over the first 15 sessions (typically done over 3-5 weeks). The ideal training regimen is 2-3 training visits per week. There is no risk in training with NeuroTracker every day.