

ACTIVATE THE BRAIN TO ENHANCE A CHILD'S CAPACITY TO LEARN

The Australian Centre for Autism and Neurodevelopment (AusCan) provides a pathway for parents and caregivers looking to maximise their child's capacity to learn - and potentially thrive - following an autism or neurodevelopment diagnosis.

Our combined approach of bringing neurodevelopment and behavioural therapies together is an Australian first and enables families to isolate and target areas of concern from a multi-disciplinary capacity.

AusCan is led by qualified and reputed professionals and backed by a belief that diagnosis holds no boundaries; our client outcomes are testament to this.

AusCan represents a positive and optimistic environment that understands, inspires and supports families through these critical yet enlightening early years.

Australian Centre for
Autism
and Neurodevelopment

JOIN OUR COMMUNITY

AusCan regularly hosts scheduled information events, many available as webinars for a national and international audience.



NEUROFEEDBACK BRAIN TRAINING THROUGH GAMES

Part of the Australian Centre for Autism and Neurodevelopment (AusCan) services suite

Australian Centre for
Autism
and Neurodevelopment

36 Beryl St, Tweed Heads, NSW, 2485
P: +61 7 5599 2220
welcome@australianautismcentre.com.au
www.australianautismcentre.com.au



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WHAT IS NEUROFEEDBACK

Operant conditioning is one of the strongest methods of habit forming. It refers to the human brain's tendency to repeat behaviours that previously resulted in a positive outcome or a reward. An action like this releases endorphins that lead to a positive feeling in the brain, encouraging the brain to repeat the action that led to the reward.

Quite simply, do something, receive a reward or positive outcome, and you'll want to do it again.

Neurofeedback is a process used to train the brain using the same principles as operant conditioning. It works to minimise the effects of unhelpful brain patterns, and the results can be breathtaking, especially for younger people.

Please note: Neurofeedback is used as a validated treatment option for ADHD and depression. For other conditions such as ASD, anxiety and traumatic brain injury Neurofeedback continues to be considered an experimental treatment, however, the research is growing to support Neurofeedback's effectiveness for treating symptoms of these conditions.

HOW DOES NEUROFEEDBACK WORK?

The Neurofeedback program is simple to understand and inviting for young people due to the involvement of screen entertainment, such as video game or movies.

STEP ONE: Determine brainwave patterns

We apply electrodes to the scalp to listen in on brainwave activity. We process the signal by computer, and we extract information about certain key brainwave frequencies. We show the ebb and flow of this activity back to the person, who attempts to change the activity level. Some frequencies we wish to promote. Others we wish to diminish.

STEP ONE:
Determine
brainwave
patterns

STEP TWO:
Stimulate
the brain

STEP THREE:
Shape
the brain

STEP TWO: Stimulate the brain

The information is presented in the form of a video game or movie screen. The person is effectively playing the video game or movie with his or her brain. However, if the brain wave profile falls out of sync, the movie or game will change. The patient must refocus their energy on their positive thoughts, and once their brain wave patterns match the "positive" profile again, playback resumes.

STEP THREE: Shape the brain

Eventually the brainwave activity is "shaped" toward more desirable, more regulated performance. The frequencies we target, and the specific locations on the scalp where we listen in on the brain, are specific to the conditions we are trying to address, and specific to the individual.

Each time playback resumes, the brain releases endorphins, encouraging positive thinking matching the desired brain wave profile. This technique allows the brain to learn and self correct extremely quickly, and build new neural pathways.

All Neurofeedback practitioners are licensed as members of The Applied Neuroscience Society of Australasia. In addition, they are registered with either the Australian Psychological Society or the Australian College of Clinical Psychologists, and are fully licensed and registered psychologists.