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Attention deficit hyperactivity disorder (ADHD) has long been perceived as an unsolvable condition, often viewed as untreatable without medications or behavioural interventions. This is all changing now based on the use of a tech hack known as neurofeedback, which is an effective treatment for symptoms of ADHD or other learning difficulties with long-lasting results.

Neurofeedback combines EEG (electroencephalogram) technology and computers to capture and display nearly instantaneous information (feedback) about a person's brain waves. Since the process does not involve adding anything to the body, it is considered a safe, effective and non-invasive alternative treatment for ADHD.

EEGs measure brain wave activity using sensors placed on the scalp in specific locations. Similar to an electrocardiogram (ECG or EKG), which uses sensors to measure heart functions, EEG sensors send information to a computer providing real-time feedback about brain wave activities.

When the neuronal pathways in the brain are not making strong

connections, learning can be difficult, if not impossible. For example, if there is an interference with the brain's ability to remember information, it will be more difficult for the person to function effectively in daily life. Fortunately, a person's brain has the potential to rewire itself.

Using the principles of operant conditioning, learning (change) occurs through reinforcement and repetition to produce desired changes. This means it is possible to improve many kinds of conditions (i.e., ADHD, anxiety, trauma, memory, learning difficulties); conditions that until now have been difficult or challenging to resolve. Through the use of neurofeedback, a person can train their brain to establish more optimal levels of brain functioning, improving their life functioning.

Neurofeedback provides a type of shortcut to boosting brain functions by teaching the person how to better regulate their brain, helping to empower them and build self-awareness. Through this process, it is possible to reduce hyperactivity, improve concentration, focus, attention, memory and enhance learning. Holding the potential for lasting results, once the brain learns a new skill or new way of functioning, it tends to maintain those changes. Consider learning how to ride a bike.

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Even if you haven't ridden in years, your brain still remembers how to do it.

Neurofeedback is emerging as a groundbreaking approach offering a beacon of hope for those struggling with ADHD and learning challenges. This non-invasive, effective method leverages EEG technology, specifically designed computer programmes and operant conditioning to empower individuals by helping them harness their cognitive capabilities for lasting change. As neurofeedback continues to gain traction, it holds the promise of transforming health care, providing enduring benefits and new possibilities for those it serves.

## HOW CAN TECHNOLOGY BE LEVERAGED TO FACILITATE THE RISE IN REQUESTS FOR ADULT ADD/ADHD DIAGNOSES AND TO ASSIST INDIVIDUALS IN MANAGING LIFE AFTERWARDS?