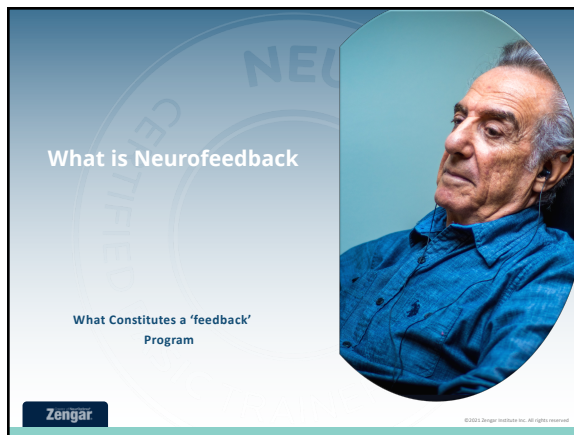


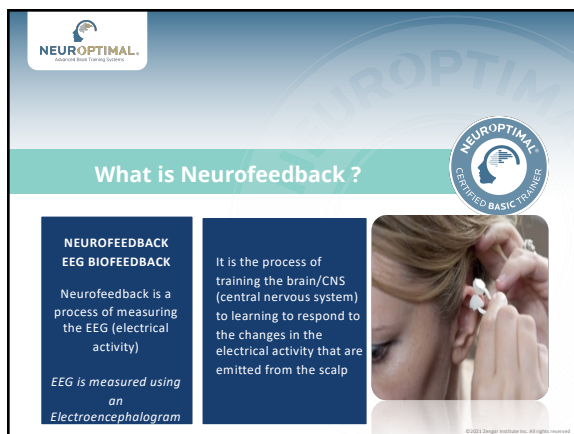
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Neurofeedback

Deciphering Linear from Dynamical processes

Neurofeedback is considered a gentle painless and non-invasive method of restoring effective balancing within the central nervous system

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Neurofeedback - 2 Basic Paradigms

2 WAYS TO MEASURE

Linear Neurofeedback process uses a software program that measures cortical activity in 2-ways

- Amplitude
- Frequency

4-WAYS TO MEASURE

Dynamical Neurofeedback® Uses the NeuroOptimal® software program to detect the changes in cortical activity-

- Duration-
- Intensity-
- Frequency
- Shifts

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Why Neurofeedback Helps

Disorders are exacerbated by stress; as the body responds to stress it naturally creates 'patterns' of electrical activity' in response.

The process of General Neurofeedback will train a different response by using that feedback loop. (previous screen)

As environmental triggers get activated eventually a physical symptom will manifest.

The Neurofeedback process is "breaking up consistent, persistent patterns" by interrupting that electrical activity with the 'feedback'



AWARENESS of Self

Feedback Process


Education of Current Patterns

Self-Transformation

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What Does it Do and How Does NF Work?




What is Involved?

The neurofeedback process involves the use of a software program, EEG amplifier and sensors on the head.



What is Measured?


This process measures the electrical activity that is measured from the scalp (a summation of electro-magnetic information)



The Linear Belief...

Linear systems believe this process *helps a person learn to become relaxed and/or focused by providing **real-time information as to how their brain is performing.

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Navigating the Beam

A visual metaphor comparing Linear and Dynamical Neurofeedback*








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Linear Approach Beliefs...




Static Thresholds

This Linear approach uses thresholds that are static bars that 'trigger' the sound, thereby initiating the feedback process.



Augment or Inhibit?

The linear model believes that practitioners need to affect the strength (amplitude) of the signal by augmenting or inhibiting specific frequencies.

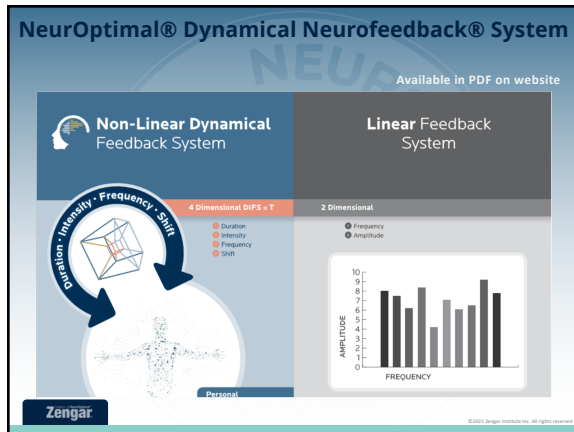


Quantitative Electroencephalogram

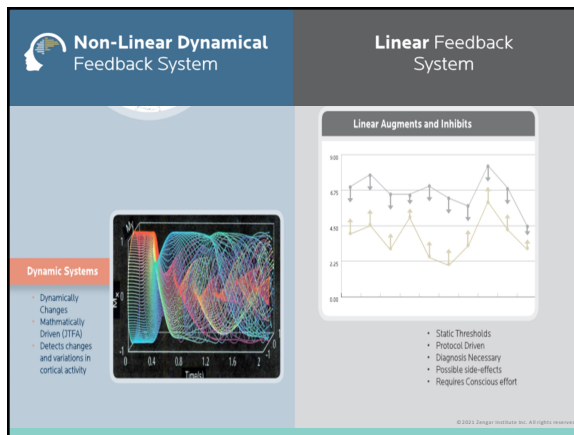
The frequency was *chosen by looking at pre-recorded activity under different conditions (eyes open, closed, reading, counting by 7's starting at 783) this is called a QEEG.

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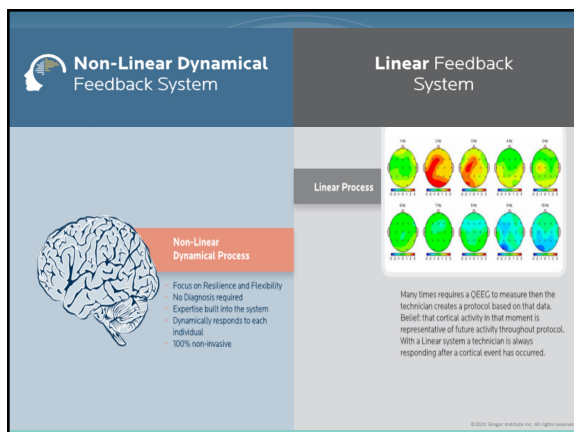
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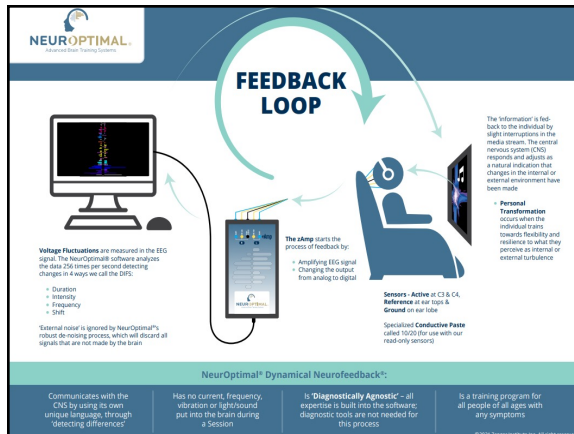


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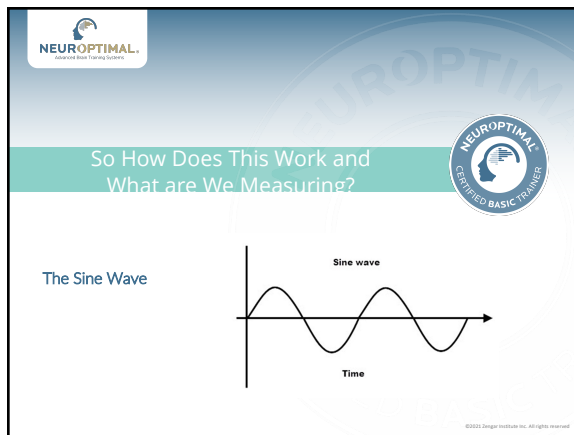


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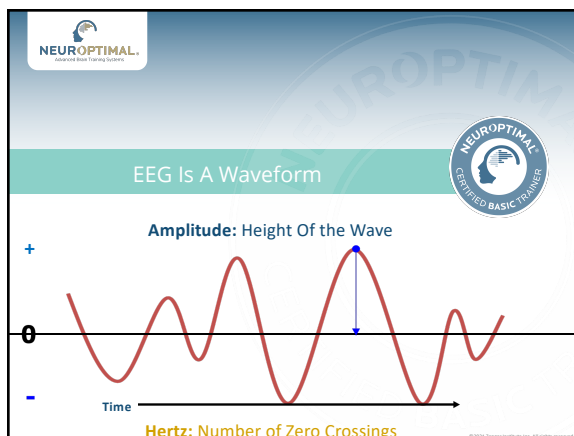
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The NeuroOptimal® sensor placement stays the same

10/20 System

Odd numbers indicate Left side of head

Even Numbers indicate the Right Side of the Head

EEG Electrode Placement

*Reading a summation of cortical activity

Keeping the Sensor in the same location allows us to see the same information, it does NOT change the Training.

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Not everything out there is Neurofeedback

- Entrainment & Migration Systems
- Sound systems
- ILS
- TLP
- Neuro-tone
- Binaural beats
- PEMF- infraMat
- Bio-Resonance Scanning
- Kvantum Frequency Generator
- LENS
- Light & Sound Systems

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NEUROOPTIMAL.
advanced Brain Training Systems

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Discussion Questions

Please Take Time to Review

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