

Brain Network Efficiency



This Brain Network Efficiency chart is based solely on electrophysiology biomarkers from data gathered during the time of test and with limited patient history, if any, provided by the medical practice. Summaries are made without knowledge of the full extent of the patient's conditions, medications, or other medical lab values. Any diagnosis is the sole responsibility of the licensed rendering medical provider after examination, lab tests and/or other clinical findings as necessary. Physiological and non-physiological artifacts (ie. eye movement, chewing, electrical phenomena, muscle movement, and sweat) may alter results. The Summary is not an extension of the Manufacturer's Software Generated Report and is provided by HealthTech USA solely for the purpose of providing summary data to their client clinics and providers.

SAMPLE PATIENT

Gender: Female
Age: 86 (DOB: Mar 7 1937)

Weight: 109 lbs
Patient Code: 855554

Height: 5 ft 2 in
BMI: 19.9

Physician Only Report

Exam Date: Mar 29 2023 13:57
Organization: Dr. Finnie

EEG Frequency Analysis

| | Score | Norms | |
|---------------------------------------|--------|----------|--|
| Eyes Closed: Posterior Peak Frequency | 9.4 Hz | 8 - 12 | |
| Eyes Open: Theta/Beta Ratio | 1.05 | < 1 | |
| Eyes Open: Frontal Alpha Asymmetry | 4 % | -10 - 10 | |

Evoked Potentials (ERPs)

| | Score | Norms | |
|---|--------|-----------|--|
| Visual Processing | 244 ms | P2 < 200 | |
| Auditory Processing* | 156 ms | P2 < 200 | |
| Information Processing / Working Memory | 384 ms | P3b < 420 | |

Behavioral Motor Test

| | Score | Norms | |
|------------------------|--------|-----------|--|
| Reaction Time | 515 ms | 350 - 500 | |
| Reaction Time Variance | 4.1 ms | < 10 | |
| Missed Responses | 0 % | <= 6 | |
| Wrong Responses | 0 % | <= 4 | |

Self-Assessment Questionnaire

Memory Problems: 5 of 5
Don't have enough energy to get moving in the morning and sustain: 5 of 5
Don't fall asleep or stay asleep at night: 5 of 5
Anxiety, Feelings of worry: 5 of 5
Anxiety: 5 of 5
Can't find the correct word to convey in speech: 4 of 5
Concussion, Recent: 4 of 5
Anger / Agitation: 4 of 5
Decreased Attention / Distracted: 4 of 5
Difficulty multitasking/ disorganized: 3 of 5
Altered vision: 3 of 5
Difficult to find words or understand words: 3 of 5

Key Findings

Obsessive-compulsive Disorder (OCD)

Tinnitus Disorder

Physician Summary - Key Findings

Normal response time to visual and cognitive stimulus.

Delayed N1 latency reduced neuronal capacity associated with visual processing.

Normal peak alpha frequencies have been correlated with good information processing capacity and semantic memory.

The 'Alpha Arrest Reaction (ARR)' was not clearly present at occipital electrode sites. This is caused by an absence of dominant Alpha activity during the Eyes Closed condition and the presence of dominant Alpha activity during the Eyes Open condition.

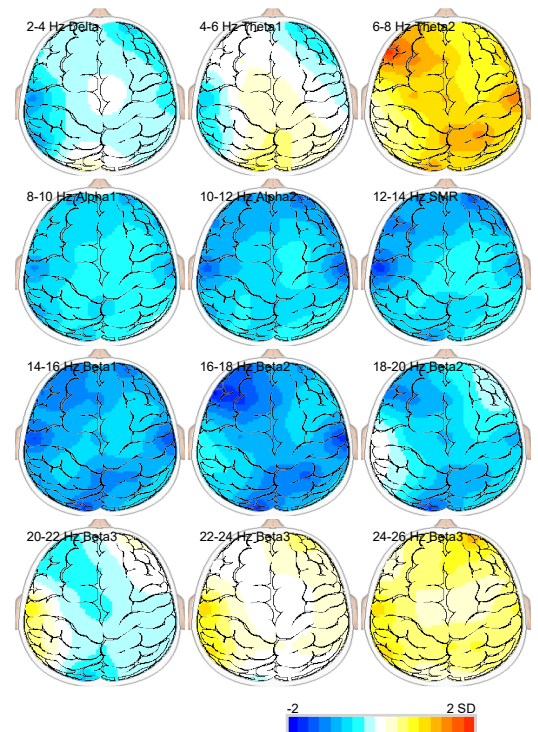
The absence of a clear ARR can be related to impaired vigilance regulation: The patient is either hypo - aroused, resulting in abnormally high Alpha power during the Eyes Open condition, or the patient is hyper - aroused.

Alpha Interhemispheric asymmetry is in normal level.

Possible signs of Obsessive-compulsive Disorder (OCD) (4 of 5); Possible signs of Tinnitus Disorder (2 of 5);

Physician Summary is provided by NeuroWave.com and is based solely on the BrainView electrophysiology biomarkers and existing medical literature. Clinical suggestions are made without knowledge of the patient's conditions, medications, or other medical lab values.

Eyes Open - Headmaps - Z Scored



Physician's Notes:

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The electroencephalogram (EEG) has been a medical standard for the evaluation of general brain health and overall function. This test detects abnormalities in the brain waves, or in the electrical activity. The brain is the most important organ in the body at the center of the nervous system and controls all parts of the body. An EEG can detect minuscule abnormalities that occur as a result of the normal ageing process, mental diseases or disorders, brain insults due to trauma, and abnormal changes due to exposure to toxins, substance abuse, and acute or chronic conditions.

Patient Name: Not Available
Gender: Female
Age: 86

Exam Date: Mar 29 2023 13:57
Organization: Dr. Finnie

Eyes Closed: Posterior Peak Frequency: **9.4 Hz**

Reference: 8 - 12 Hz



Eyes Open: Posterior Peak Frequency: **7.1 Hz**

Marker of Cognitive Performance

50%

Reference: 8 - 12 Hz



Eyes Open: Theta/Beta Ratio: **1.05**

Marker of Inattention

Reference: < 1



Eyes Open: Frontal Alpha Asymmetry: **4 %**

Marker of Depression, Anxiety

Reference: -10 - 10 %



Eyes Open: Brain Map Source - Deviations from normality

| Brodmann Area (BA) | Frequency | Z-Score | Function |
|-----------------------------|-----------------|---------|--|
| BA Left 38, 44, 45 (47, 46) | 6-8 Hz Theta2 | 3.9 SD | Language production & comprehension; Working memory, selective attention |
| BA Left 20, 21 (22, 38) | 12-14 Hz SMR | -3.6 SD | Language comprehension, reading; Long term memory |
| BA Left 20, 21 (22, 38) | 14-16 Hz Beta1 | -3.5 SD | Language comprehension, reading; Long term memory |
| BA Left 20, 21 (22, 38) | 10-12 Hz Alpha2 | -3.1 SD | Language comprehension, reading; Long term memory |
| BA Left 38, 44, 45 (47, 46) | 16-18 Hz Beta2 | -2.9 SD | Language production & comprehension; Working memory, selective attention |

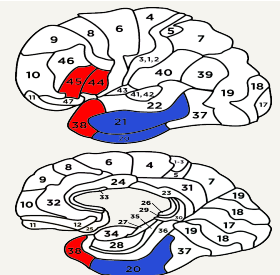
Eyes Closed: Brain Map Source - Deviations from normality

| Brodmann Area (BA) | Frequency | Z-Score | Function |
|-----------------------------|----------------|---------|--|
| BA Left 20, 21 (22, 38) | 14-16 Hz Beta1 | -3.5 SD | Language comprehension, reading; Long term memory |
| BA Left 38, 44, 45 (47, 46) | 6-8 Hz Theta2 | 3 SD | Language production & comprehension; Working memory, selective attention |
| BA Left 20, 21 (22, 38) | 12-14 Hz SMR | -2.8 SD | Language comprehension, reading; Long term memory |
| BA Right 20, 21 (22, 38) | 12-14 Hz Beta2 | -2.6 SD | Emotional regulation; Organization |
| BA Left 17, 18, 19 | 18-20 Hz Beta2 | -2.3 SD | Right visual field |

Normal peak alpha frequencies have been correlated with good information processing capacity and semantic memory.

Examination Duration: 27 min 39 sec

19%



Physician's Notes: