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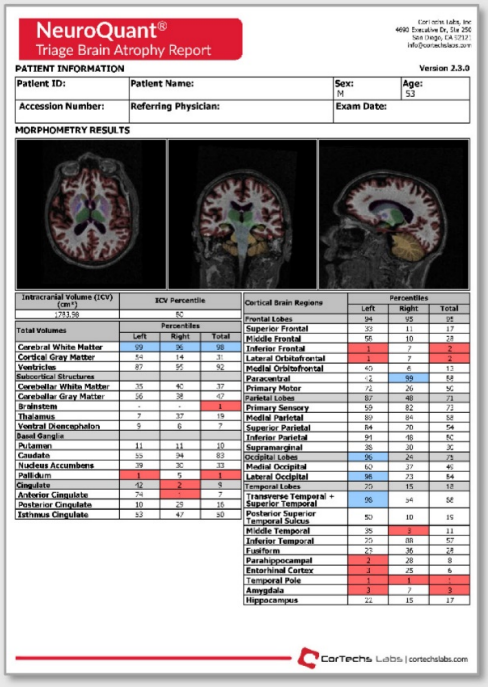
NeuroQuant®: Talking to your Doctor about Traumatic Brain Injury

Preparing for a doctor's visit helps you to get the best care possible for you or your loved one. Below you will find some information about traumatic brain injury (TBI), including some helpful information on discussing NeuroQuant with your physician.

NeuroQuant is a FDA cleared software that helps physicians detect and measure changes in brain anatomy. Physicians use NeuroQuant when making clinical assessments of TBI, which can cause changes in brain anatomy due to damage to the brain structures (e.g. shrinkage (atrophy) or swelling (edema)) caused by the traumatic event.

Physicians use several evaluation tools to make an accurate assessment of neurological complaints in traumatic brain injury patients. One option is having a magnetic resonance imaging (MRI) scan of your brain taken. The NeuroQuant analysis is part of a physician prescribed MRI procedure.

NeuroQuant uses the images from the MRI scan to measure the volume of certain brain structures and lobes, which may be important in the assessment of TBI. A NeuroQuant report (see sample below) is then sent directly to your physician.



NeuroQuant®
Triage Brain Atrophy Report

PATIENT INFORMATION — Version 2.3.0

Patient ID:	Patient Name:	Sex: M	Age: 53
Accession Number:	Referring Physician:	Exam Date:	

MORPHOMETRY RESULTS

Intracranial Volume (ICV) (cm³)	ICV Percentile
1783.58	82

Total Volumes	Percentiles		
	Left	Right	Total
Cerebral White Matter	99	96	98
Cortical Gray Matter	54	14	31
Ventricles	87	95	92
Subcortical Structures			
Cerebellar White Matter	35	40	37
Cerebellar Gray Matter	56	38	47
Brainstem			1
Thalamus	7	37	19
Ventral Diencephalon	9	6	7
Basal Ganglia			
Putamen	11	11	10
Caudate	35	34	83
Nucleus Accumbens	39	30	33
Pallidum	1	5	1
Cingulate	42	2	9
Anterior Cingulate	74		7
Posterior Cingulate	10	28	16
Isthmus Cingulate	53	47	80

Cortical Brain Regions	Percentiles		
	Left	Right	Total
Frontal Lobes	94	95	95
Superior Frontal	33	11	17
Middle Frontal	58	10	28
Inferior Frontal	1	7	2
Lateral Orbitofrontal	1	7	2
Medial Orbitofrontal	45	6	13
Paracentral	2	59	14
Primary Motor	72	26	56
Parietal Lobes	87	48	71
Primary Sensory	59	82	72
Medial Parietal	89	84	88
Superior Parietal	84	70	84
Inferior Parietal	94	48	82
Supramarginal	36	30	36
Occipital Lobes	96	24	73
Medial Occipital	60	37	46
Lateral Occipital	98	73	94
Temporal Lobes	25	15	18
Transverse Temporal + Superior Temporal	96	34	88
Posterior Superior Temporal Sulcus	52	10	16
Middle Temporal	26	1	11
Inferior Temporal	25	88	57
Fusiform	23	36	28
Parahippocampal	2	28	8
Entorhinal Cortex	1	25	6
Temporal Pole	1	1	1
Amygdala	3	7	3
Hippocampus	22	15	17

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The Triage Brain Atrophy Report provides:

- Colored brain images captured from MRI
- 44 left and right side and total brain structures for aid in assessment of brain structures outside the normative range

Discussing the Benefits of NeuroQuant with Your Physician

- **NeuroQuant can help physicians evaluate** certain brain structures are outside the 95-5 normative percentile compared to age and gender
- Color coding can quickly indicate potential atrophy or edema of 44 brain structures
- In both mild and severe TBI cases, NeuroQuant can be used to identify which brain structures are injured, so that proper treatment can be recommended
- The NeuroQuant Triage Brain Atrophy report can be used for **patients as young as 3 years of age**

Brain Structure Volume Measurements in TBI Benefits Physicians, Patients and Caregivers

- **Provides an** indicator of which structures are affected for improved rehabilitation treatment
- **Aids physicians** in making their clinical assessment in patients
- Provides additional insight into brain volume changes - swelling to atrophy progression from initial injury
- Patients and caregivers are able to play an **active role** in recovery and make **informed decisions**