

# STROKE

### **FRONTAL LOBE**



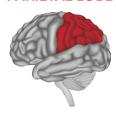
# **Functions**

- Problem-solving skills
- Short-term memory
- Attention/concentration
- Planning and initiating movement
- Judgment
- Social/emotional control
- Speech/language expression
- Motivation
- Initiation
- · Organization of thoughts
- Impulse/behavioral control
- Planning/sequencing
- Decision-making
- Personality
- Awareness of abilities and limitations

# Possible Changes

- Changes in mood/personality
- Uncontrollable or inappropriate behaviors, emotions and impulses
- · Lack of inhibitions
- · Lack of attention/focus and motivation
- · Difficulty with problem-solving
- Reduced spontaneity
- Inflexible thinking/repetitive thoughts
- Difficulty arranging two or more things
- Problems with language expression
- · Difficulty initiating movement
- Muscle weakness and lack of coordination

#### **PARIETAL LOBE**



- Academic functions
- Body awareness
- Right/left organization
- Visual perception/attention
- Identifying/naming objects
- Eye-hand coordination
- Spatial orientation
- Awareness and location of touch
- Inclusion of different senses for understanding

- Trouble distinguishing left from right
- · Lack of body part awareness
- Unawareness of surrounding space
- Eye-hand coordination difficulties
- Problems with academic skills
- Difficulty naming objects
- Trouble focusing visual attention
- Difficulty naming/drawing objects
- Problems with processing touch
- Unawareness of disability

# **TEMPORAL LOBE**



- Selective attention
- Hearing, visual and long-term memory
- Memory integration
- Facial recognition
- · Locating and categorizing objects
- Attention to music
- Understanding language/words
- · Hearing and visual processing

- Loss of long-term memory
- Difficulty with facial recognition
- Increase or decrease in sexual desire
- Persistent talking
- Difficulty directing attention
- Aggressive behavior
- Lack of emotion or inappropriate emotions
- Problems understanding spoken words
- Difficulty locating/grouping objects

# **OCCIPITAL LOBE**



# Visual perception

# Awareness/recognition of printed words

**Functions** 

# Possible Changes

- Trouble with vision
- Problem identifying colors
- Difficulty recognizing written words/drawn objects
- Visual distortions
- Hallucinations
- · Problem recognizing if an object is moving
- · Reading and writing difficulties

# **CEREBELLUM**



# • Balance/posture

- Eye movement
- Coordination of voluntary movement
- Larger body movements (e.g., walking, throwing, jumping)
- Smaller body actions (e.g., writing, buttoning clothing, eating)
- Unable to make rapid movements
- Slurred speech
- Inability to reach out and grasp objects
- Tremors and/or dizziness
- Difficulty walking
- Difficulty managing large and small body movements
- Problems with posture
- Trouble controlling eye movement
- Trouble finding words and meanings

#### **BRAIN STEM**



- Balance and movement
- Arousal/sleep regulation
- Swallowing
- Breathing
- · Heart rate
- Digestion
- Body temperature
- Blood pressure
- Eye movement
- Level of alertness/consciousness

- Difficulties swallowing
- Dizziness and nausea
- Sleeping complications such as insomnia and sleep apnea
- Impaired organization/perception of the environment
- Weakness
- Balance and movement difficulties
- Trouble with speech
- Impaired regulation of body temperature, heart rate and/or respiration
- Double vision
- Decreased alertness

# **DEEP STRUCTURE**

(includes the thalamus, hypothalamus, basal ganglia, caudate and putamen)



- Connects the other lobes to the brain stem
- Movement
- Sense processing: sight, smell, hearing, taste and touch
- Emotional functions and physical reactions

- Weakness
- Sensory loss
- Memory loss
- Pain
- Language difficulty
- Motivation
- Unstable emotions

# For more information visit **stroke.org**.