



**A Basic Tool Kit for  
Living with Brain Injury**



## Welcome to Your RETRAIN MY BRAIN Kit!

**Retrain My Brain** has been developed *by* people living with brain injuries *for* people living with brain injuries. The goal is to provide you with information, resources and tools to:

- B** build new behaviors and outlooks
- R** respect your body by establishing routines, resting and rebuilding a healthy body
- A** attend to your memory and accept your brain injury
- I** inform yourself about brain injury
- N** find your new normal

The kit includes B R A I N cards, a DVD of the documentary “*every 21 seconds...*”, forms to assist with information gathering and organization, a rest log, a calendar and an ID card—all to help you learn about your brain, your injury and how to integrate strategies to retrain your brain while living with a brain injury. A Facilitator’s Guide is also included so that you and members of your support group can facilitate support group meetings using the kit as the foundation and outline for discussion.

“**Retrain My Brain** has been developed using tools from a variety of sources. Over the last 10 years these tools have helped me get control of my day, use routines, be responsible for my behaviors and be aware of others. Today, I am growing and living a whole new life—my new normal.”

– Ralph Frakes, Developer of **Retrain My Brain**

If you would like more information about the kit, brain injury or services in New Mexico, please visit our website at [www.nmbiac.com](http://www.nmbiac.com). If you would like to provide feedback about the kit please call us at 505.476.7328.

**Retrain My Brain** is a product of the NM Brain Injury Advisory Council with funding from the NM Developmental Disabilities Planning Council and in cooperation with the NM Brain Injury Association.



# Skills and Functions Associated with the Lobes of the Brain

How does the brain work?

An overview of brain functions can help one understand what happens when someone sustains a brain injury. Each brain injury is unique. This diagram illustrates the parts of the brain and their relationships to physical, emotional, cognitive and behavioral functions.

## Simplified Brain-Behavior Relationships

### Frontal Lobe

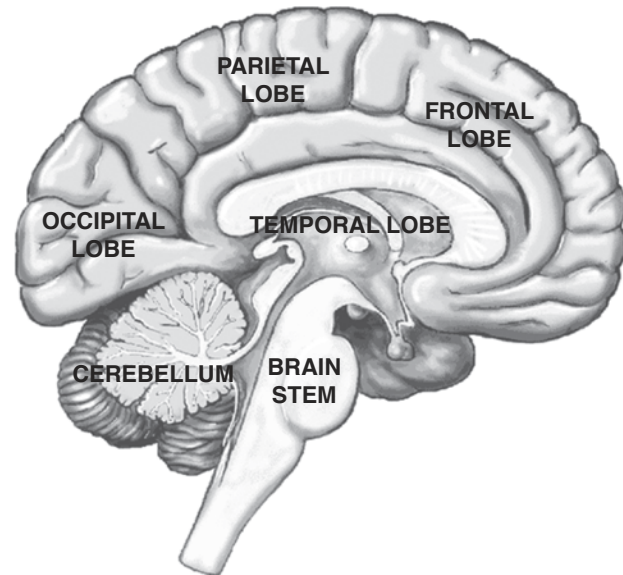
- Initiation
- Mental flexibility
- Speaking (expressive language)
- Organization/Concentration
- Problem-Solving
- Self-Monitoring
- Judgment
- Motor planning
- Inhibition of behavior
- Personality/Emotions
- Planning/Anticipation
- Awareness of abilities/limitations

### Temporal Lobe

- Memory
- Understanding language (receptive language)
- Hearing
- Organization and sequencing

### Brain Stem

- Breathing
- Sleep/Wake functions
- Heart rate
- Attention/Concentration
- Arousal/Consciousness



### Cerebellum

- Balance
- Coordination
- Skilled motor activity

### Occipital Lobe

- Vision

### Parietal Lobe

- Sense of touch
- Differentiation: Size, Shape, Color
- Spatial perception
- Visual perception





# THIS BINDER BELONGS TO

| NAME | ADDRESS | PHONE | CELL PHONE | EMAIL |
|------|---------|-------|------------|-------|
|      |         |       |            |       |

| IN CASE OF EMERGENCY PLEASE CONTACT |
|-------------------------------------|
|                                     |

## MEDICAL CONTACTS

|                                | Name | Phone | Fax | Address |
|--------------------------------|------|-------|-----|---------|
| Primary Care Doctor            |      |       |     |         |
| Rehab Doctor                   |      |       |     |         |
| Rehab Support Staff            |      |       |     |         |
|                                |      |       |     |         |
|                                |      |       |     |         |
| Other Doctor(s)                |      |       |     |         |
|                                |      |       |     |         |
| Therapist(s)                   |      |       |     |         |
|                                |      |       |     |         |
| Case Manager/<br>Service Coord |      |       |     |         |
|                                |      |       |     |         |
|                                |      |       |     |         |
|                                |      |       |     |         |









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## INITIAL EVALUATION

(Please complete prior to introduction to Retrain My Brain Tool Kit)

Are you having difficulty with cognitive challenges as a result of your brain injury?      Yes \_\_\_      No \_\_\_

Memory?      Yes \_\_\_      No \_\_\_

Initiation?      Yes \_\_\_      No \_\_\_

Organization?      Yes \_\_\_      No \_\_\_

Do you use tools to help compensate for your cognitive challenges?

Yes \_\_\_      No \_\_\_

What are they?

If No, would you like to learn how to improve your cognitive challenges?

Yes \_\_\_      No \_\_\_

## POST EVALUATION

(To be completed after four (4) training sessions with Retrain My Brain)

Has the Retrain My Brain Tool Kit improved your ability to:

Remember?      Yes \_\_\_      No \_\_\_

Initiate?      Yes \_\_\_      No \_\_\_

Organize?      Yes \_\_\_      No \_\_\_

What worked best for you?

How could Retrain My Brain be improved?



## TERMS RELATED TO BRAIN INJURY

**Agnosia:** Failure to recognize familiar objects

**Agraphia:** Inability to express thoughts in writing

**Alexia:** Inability to read

**Aneurysm:** A balloonlike deformity in the wall of a blood vessel

**Anomia:** Inability to recall names of objects

**Anosmia:** Loss of sense of smell

**Anterograde Amnesia:** Inability to remember ongoing events

**Aphasia (Receptive):** Loss of ability to understand language

**Aphasia (Expressive):** Loss of ability to formulate language

**Apraxia:** Inability to carry out purposeful movements

**Asterognosia:** Inability to recognize objects by touch

**Ataxia:** Difficulty with muscle coordination

**ADLs:** Activities of daily living

**CT Scan:** Computed tomography (CT) is an imaging method that uses x-rays to create cross-sectional pictures of the body.

**Clonus:** Involuntary muscular contractions and relaxations in rapid succession

**Cognition:** The process of knowing or perceiving

**Confabulation:** Verbalizations with no basis in reality

**Contracture:** Decreased range of motion due to tissues shortening

**Convergence:** Inward movement of the eyes to focus on closer objects

**Cortical Blindness:** Loss of vision due to visual cortex lesion

**DSM-IV:** The standard classification of mental disorders used by mental health professionals

**Diplopia:** Seeing two images of single objects; double vision

**Dysarthria:** Difficulty in speaking due to muscle weakness

**Dysmetria:** Difficulty controlling speed, distance or power of motor actions

**Dysphagia:** Swallowing disorder

**Echolalic:** Imitation of sounds or words without comprehension

**Hemiplegia:** Paralysis of one side of the body

**Hemiparesis:** Weakness of one side of the body

**ICD-9 Codes:** Diagnostic codes that can be used to satisfy insurance record-keeping and reimbursement

**Kinesthesia:** Sensory awareness of body parts as they move

**Lability:** Drastic changes in emotion without apparent reason

**MRI (Magnetic Resonance Imaging):** A radiological scanning technique that uses magnetism, radio waves and a computer to produce images of body structures

**Neuropsychological Testing:** By testing a range of cognitive abilities and examining patterns of performance in different cognitive areas, neuropsychologists can make inferences about underlying brain function.

**Nystagmus:** Involuntary movements of the eyeballs

**Perseveration:** Uncontrolled repetition of a word, phrase or gesture

**Proprioception:** Sensory awareness of the position of body parts

**Shunt:** An implanted device to divert fluid away from the brain

**Spasticity:** Involuntary increase in muscle tone causing resistance

**Vestibular System:** A sensory system within the ear that provides a sense of balance and contributes to movement

**Visual Field Defect:** Not seeing objects in specific viewing regions

**Vertigo:** The sensation of spinning or whirling that occurs when balance (equilibrium) is disturbed

## TYPES OF BRAIN INJURY

**Anoxia/hypoxia:** Brain cell death resulting from brain cells receiving no oxygen (anoxia) or insufficient oxygen (hypoxia)

**Concussion:** An injury to the brain resulting from an impact from an external force

**Contusion:** A visible bruising of the brain due to trauma or blood leaking from the blood vessels

**Coup-Countercoup Injuries:** At least two injury sites from one blow caused by the brain bouncing back and forth against the skull

**Diffuse axonal injury (DAI):** A shearing of the cell connections due to rapid acceleration or deceleration of the brain during trauma. The result of global damage.

**Hematoma:** Brain damage resulting from leaking blood that has collected in a confined area of the brain or skull. A hematoma can be subdural, epidural or intra-cerebral.

**Penetrating Brain Injury:** A tearing of the brain from a skull fracture or gunshot wound which ruptures a large blood vessel and causes bleeding into the brain subarachnoid space. Penetrating brain injuries also allow bacteria to enter the brain and can result in conditions such as encephalitis and meningitis.



## FACILITATOR'S GUIDE

This is a suggested outline to assist facilitators in using the **Retrain My Brain Kit** with members of a brain injury support group. The purpose is to develop a routine utilizing components of the kit at each meeting to generate discussion and to provide a framework for future meetings.

Our suggested meeting length is two hours, however the support group should agree on a length of time for their own meetings.

### Facilitating A Brain Injury Support Group Meeting

#### Step 1. Welcome everyone to the meeting and have introductions (20 minutes)

Introduce yourself and ask attendees to introduce themselves.

*Hello, my name is Ralph. I live in Española and I have a traumatic brain injury.*

If there are new attendees, ask for 3 or 4 volunteers to briefly tell his or her brain injury story that includes what year they were injured, which part of their brain is injured and their personal story.

*Hello, my name is Adelita. In 2008 I was serving in the Iraq war and received a brain injury as a result of a roadside bomb. My frontal lobe was injured and now I have problems with organizing my life, making decisions and following through on activities that I start.*

Check if any attendees require special accommodations for comfort such as reduced noise or lighting levels, and make those adjustments if possible.

#### Step 2. Review ground rules and select a timekeeper for activities (10 minutes)

Establish and discuss ground rules.

- 1. One person will talk at a time. Please raise your hand before speaking.*
- 2. We will break after one hour, but if you need to take a break sooner feel free to do so.*
- 3. We will respect each other and everyone participating*
- 4. We will use the **Retrain My Brain Kit** to help us learn about our brain and our injuries, and to support each other as we learn.*
- 5. We will . . . (Include and discuss any additional ground rules that the group feels are important.)*

### Step 3. Choose a discussion topic from the Retrain My Brain Kit (30 minutes)

Suggestions to consider:

- Use the **Lobes of the Brain** page and encourage each person to identify the lobe(s) of the brain affected by his or her brain injury and the behaviors they experience related to that area.

*My injury was to the temporal lobe, and I can't remember what I have done in a day and what I need to do. This page shows that what I am experiencing is to be expected with the area of my brain that is injured.*

(The **Lobes of the Brain** page has a picture of a brain in the upper-right corner.)

- Choose one of the **B R A I N** cards to begin a conversation with members about what the title phrase means to them, and how they identify with the suggestions and topics listed on the card.

*The N card makes me wonder what my New Normal is, or will be. I want to be able to do the things that I've always done but I just can't make my brain work the way it used to.*

(The **B R A I N** cards are the tall cards with a capital letter at the top.)

### Step 4. Midway through, take a break and encourage people to rest (10 minutes)

### Step 5. Continue discussion of the chosen topic (30 minutes)

### Step 6. Wrap-up and next steps (20 minutes)

- Ask if there are things that people planned to say that weren't covered.
- Ask if there are any announcements.
- Remind everyone when the next meeting is and to bring their **Retrain My Brain Kit**.
- Choose a facilitator for the next meeting and ask who will send an email or phone call reminder about the next meeting.

# B

## BUILD NEW BEHAVIORS AND OUTLOOKS

**Believe in yourself**

**Be your best**

**Be responsible for your behaviors; be aware of others' needs and points of view**

**Befriend another—get a buddy**

**Be social—connect with others**

- Don't isolate yourself
- Get involved in a hobby
- Attend a support group
- Volunteer

**Be aware of fatigue**

- Cognitive fatigue (being tired from using your brain)
- Physical fatigue—recognize your physical limitations; manage activities

**Become an initiator (learn to start activities)**

**Become an advocate/mentor**

**Be involved—network**



# R

## RESPECT YOUR BODY RESTORE AND RECHARGE

**Rest**

- Establish a sleep routine
- Establish a daytime rest routine; record in your Rest Log
- Relax
- Minimize stress

**Routine**

- Organize your day; use your calendar
- Decrease clutter—organize/clean your house
- Be consistent about where you put your keys, wallet, etc.
- Buckle up
- Wear a helmet when cycling, skating, snowboarding, skiing or horseback riding. Also when on a motorcycle, ATV or scooter

**Rebuild**

- Don't smoke, drink alcohol excessively or use street drugs
- Eat less fat and more antioxidant-rich foods
- Exercise



# A

## ACCEPT YOUR BRAIN INJURY

### Activate your brain

- Read
- Write
- Play games, do crossword puzzles
- Learn new things
- Engage in physical exercise

### Aid your memory

- Check your calendar daily
- Do one thing at a time
- Write things down, make lists
- Repeat information to yourself; say it out loud
- Make eye contact with people; ask people to speak slowly
- Ask people to repeat what they said
- Repeat what people say back to them
- Ask questions
- Ask people to remind you of things
- Use highlighters to mark important information
- Use an alarm or timer
- Practice and repeat



# I

## INFORM YOURSELF ABOUT BRAIN INJURY

### Inquire, investigate, ask questions

Identify the parts of your brain that were injured (see page with brain icon in the upper-right corner)

### Identify the consequences of your brain injury

- Cognitive consequences
  - Memory
  - Ability to process information
  - Concentration/distractibility
  - Communication
  - Judgment
  - Organization
  - Initiation/completion of activities
- Physical consequences
  - Seizures
  - Muscle spasticity
  - Impaired vision, hearing, speech, smell, taste and balance
  - Headaches, dizziness, fatigue
- Emotional consequences
  - Anxiety; depression; mood swings
  - Impulsivity; agitation
  - Difficulty seeing how behaviors affect others



# N

## NEW NORMAL KNOW YOURS

- Neuro-psych exam – get one
- Notice when and where you need help and ask for it
- Nourish yourself
- Nurture aims and goals
- Necessities – these are probably different than before your brain injury
- Neuro-fatigue – know that you and your brain will be tired
- Now – live in the present
- No negativity
- Never say never



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# B R A I N

Five Easy-To-Use  
Discussion Cards For  
Brain Injury Support Groups

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