

Assistive Technology for Individuals with Traumatic Brain Injury

Traumatic brain injury (TBI) is one of the leading causes of disability among children and young adults in the United States. According to the Centers for Disease Control and Prevention, each year an estimated 1.5 million Americans sustain a TBI. While a TBI may result in cognitive, emotional, sensory, and motor impairments, this bulletin will address assistive technology solutions for cognitive disabilities which include short and long term memory loss, sleep disorders, difficulty concentrating and processing information, inability to complete more than one task at a time, or organizational difficulties.

Home-made aids are simple solutions for many types of cognitive problems. A **large print calendar** is an important tool to note daily routines, appointments, special occasions, and future events. For some individuals, reading a clock with hands may be difficult. An alternative choice may be a **digital clock** displayed in clear view. A **Talking Clock and Talking Calendar** will announce the time of day and date aloud with the push of a button, and can be accessed as many times as the individual needs the information. For those needing reminders across environments, **talking watches** with date and time features are also available.

A **checklist** may be used to help remind a person to complete certain tasks. For example, a daily checklist placed inside the door to a home may include reminders like take house key, turn off iron and lock front door. Home-made **labels** can also help people remember the contents of a drawer or closet and can be made using words or pictures.

Small voice recorders on key chains or message recorders can be pre-recorded with reminder messages including appointments, telephone numbers, grocery lists, or prescription refills. Slightly more elaborate memo-recorders, like the Voice Cue have clocks and alarms that can be programmed to make specific announcements, some at the same times each day of the week. When set ahead of time, a device called the **Watch Minder®** can remind a person to do specific tasks like call home or go to work.

Handheld microcomputers, such as the **Palm Pilot®**, use touch screen capability and allow an individual to easily input, save, and retrieve notes, telephone numbers, dates and daily reminders, and to-do lists. A built-in calendar displays the entire month at a glance while cursor controls allow scrolling from day-to-day or month-to-month.

The **Visual Assistant** is a handheld microcomputer that provides task-prompting support by providing digital pictures, along with custom recorded audio messages that provide step-by-step instructions.

The **Ultra Key Seeker** beeps and flashes to assist in locating lost keys. A vibrating alarm clock called the **Shake Awake®** can be placed inside a pillowcase or under the mattress to assist with varied sleep patterns, such as insomnia and reversed sleep-wake schedules.

The **Pill Alert** provides an alarm feature that can be set to ring at the time or times medication needs to be taken. Some reminders automatically reset to repeat at the same countdown interval, or have lights that identify the compartment that should be opened. Medication alert devices may be pocket-sized or housed in a wristwatch.

The **Boil Alert** is a round, 3.5 heat-resistant glass disk that is placed at the bottom of a pot or kettle to assist those individuals who may enjoy cooking but become distracted. The device alerts the individual by rattling when liquid starts to boil inside the pot or kettle. A **Stove Power Controller** is equipped with an alarm that may be set for 15, 30, or 60-minute intervals before the automatic shut-off occurs. This device may be helpful to those who may forget that the electric stove is on.

The **Talking Microwave II** provides voice prompts, including announcements for setting or running cook times, current power level, status of the microwave and reminders to attend to the food.

For more information on both traumatic brain injury and AT devices and services, please contact DRNJ, New Jersey's protection and advocacy system for people with disabilities. DRNJ provides legal and non-legal advocacy services, technical assistance and training, information and referral, and outreach and education in support of the human, civil and legal rights of people with disabilities. Call 1-800-922-7233 in New Jersey, or access our website at <http://www.drnj.org>.

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The Assistive Technology Advocacy Center (ATAC) of DRNJ

210 South Broad Street, Third Floor, Trenton, NJ 08608

For voice assistance and information, please call 1-800-922-7233. TTY users may dial (609) 633-7106, or use the NJ Relay, 711 to reach the 800# above. Visit us on the web at www.drnj.org

The 56 statewide Assistive Technology (AT) Programs form a national network of statewide assistive technology programs. Information contained in this brochure represents the accumulation of knowledge of this national network. The AT programs receive funding from the U.S. Department of Education, Rehabilitation Services Administration (RSA) to implement the Assistive Technology Act of 1998, as amended. No official endorsement by the U.S. Department of Education of any product, commodity, service or enterprise mentioned in this publication is intended or should be inferred.

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