

Brain Injury and Rural Health



People living in rural areas are at a higher risk of sustaining a brain injury, and have more fatalities, in part because of the greater distance to specialized care.

60 million → 60 million (1 out of 5) people live in rural America, making the problems with TBI management and resources a major public health concern

Contributing factors to higher rates of brain injury:

Environmental issues (poorer road conditions, unpredictable weather and livestock and wildlife), drinking and driving, and substance abuse.



Poorer outcomes result from:

Longer travel times to emergency care, lack of access to level 1 trauma centers, lack of specialized brain injury care and high cost of healthcare in rural areas.

BEST PRACTICE

Providers in Rural Areas should:

- **SCREEN** for prior history of Brain Injury
- **ASSESS** Cognitive & Functional Impairment
- **EDUCATE** staff on Brain Injury
- **EDUCATE** the person about their Brain Injury
- **PROVIDE** and **TEACH** Accommodations
- **CONNECT** person served with Community Resources

COMMON PROBLEMS

After Brain Injury, we often see problems with:

- Attention, memory and new learning
- Slowed speed of processing
- Organization, problem solving & impulsivity
- Irritability, frustration & agitation
- Balance, dizziness & headaches
- Poor awareness of deficits & difficulties
- Difficulty being flexible, poor self-monitoring

WHAT TO LOOK FOR

Providers in Rural Areas may see:

- Children doing poorly in school; adults struggling at work
- Missing appointments
- Appearance of non-compliance because they cannot remember dosages and medication schedules
- Slow to follow directions because they cannot process quickly
- Falling into things, often getting hurt
- Parenting and relationship issues because of cognitive changes
- Gets stuck on an idea or a way of doing something, does not recognize mistakes

Rural communities face issues with higher rates of chronic diseases like obesity and high blood pressure, more substance use, less access to transportation and quality healthcare, higher poverty and poorer overall infrastructure.

Common Accommodations for Brain Injury Challenges

Here are some common and simple accommodations:

- Working for shorter periods of time
- Getting rid of distractions, like noise or movement
- Taking notes (on paper, in a notebook, on a phone or computer)
- Using a phone to set timers to remember appointments & medication schedules; providing a check-off medication schedule to avoid forgetting they have already taken a medication
- Repeating information to the person
- Slowing down when talking; giving them more time to respond
- Giving a written list of non-medication strategies to avoid or reduce pain
- Coaching the person to take deep breaths when feeling angry or anxious



Take Note

Tools for Best Practice

Brain Links' Strategies & Accommodations Tool: <https://www.tndisability.org/rehabilitation>

Symptom Questionnaire: <https://mindsourcicolorado.org/adult-symptom-questionnaire/>

Cognitive Strategies Guidebook: <https://mindsourcicolorado.org/wp-content/uploads/2019/05/Strategies-and-Accommodations-Guidebook-CJ-Professionals-5.6.19.pdf>

Brain Injury Screening Resources:

- **OSU TBI Identification Method:** <https://wexnermedical.osu.edu/neurological-institute/neuroscience-research-institute/research-centers/ohio-valley-center-for-brain-injury-prevention-and-rehabilitation/osu-tbi-id>
- **NASHIA's OBISSS:** <https://www.nashia.org/obissprogram>



Tennessee Resources

Brain Links' Website with many resources:
[tndisability.org/brain](https://www.tndisability.org/brain)

Brain Links' Toolkits (for Service Professionals and Survivors): <https://www.tndisability.org/brain-toolkits>

TN Department of Health TBI Program:
<https://tinyurl.com/3v5jrdt3>



Tennessee Brighter Futures' Resource Pages & Training for Brain Injury:

<https://www.tndisability.org/tbf-brain-injury>



Resource Pages & Training for Rural Health:

<https://www.tndisability.org/tbf-social-determinants-health>

TN Brighter Futures is organized and facilitated by Brain Links through a contract from the TN Department of Health TBI Program.



References:

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- Daugherty J, Waltzman D, Popat S, Horn Groenendaal A, Cherney M, Knudson A. (2022) Challenges and opportunities in diagnosing and managing mild traumatic brain injury in rural settings. *Rural and Remote Health*. 22: 7241.



Social Determinants of Health Resources



<https://www.tndisability.org/brain>
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