

FACT SHEET



Cognitive Changes After Brain Injury Reasoning & Problem solving

QUICK FACTS

- Reasoning and problem solving are executive functions
- These require an individual to analyze a task or problem and find possible solutions
- Following a brain injury, individuals may become more rigid and concrete in their thinking

WHAT MIGHT IT LOOK LIKE?

- Difficulty recognizing when there is a problem
- Have difficulty making decisions and becoming stuck on one solution rather than looking at other options
- Making quick decisions without thinking about the consequences
- Difficulty understanding abstract levels of meaning (e.g., figures of speech and metaphors)
- Difficulty considering hypothetical explanations and problem solving (e.g., cannot connect different, but similar types of information or recognize patterns of information)
- Inability to appreciate cause-and-effect relationships

WHAT ARE THE POSSIBLE CAUSES AND COMPLICATIONS?

Possible causes:

- Damage to the areas of the front part of the brain that manage thinking skills

Possible complications:

- Difficulty with social interactions and understanding social rules, personal safety rules, etc.
- Challenges understanding and having awareness as to the impact of their injury
- Difficulty managing grief and loss

WHAT CAN WE DO?

Problem solving strategies:

- Make instructions for problems clear and concise
- Support the individual to work through problems by using a problem solving organizer
 - Define the problem
 - Brainstorm solutions
 - List pros and cons
 - Pick a solution to try
 - Evaluate the solution
 - Try another solution if necessary

Reasoning strategies:

- Avoid abstractions (e.g. “Oh, I love your wallpaper. It’s like being in a beautiful garden.”)
- Encourage the development of visualization when reading
- Read a story aloud and discuss the story
- Play word association games

Disclaimer: This information is not meant to replace advice from a medical doctor. Consult a health care provider regarding specific medical concerns or treatment.