



## Emotional Deficits

**EMOTION & AFFECT:** Recognizing and producing emotions are critical to human interactions. Affect refers to not only emotional responses but also attitudes and states (such as boredom, respect, humility). RHD can disrupt both emotion and affect. Some people with RHD may seem very ‘flat’ and unemotional, and don’t seem to get excited or upset about anything; others will be overly animated and have emotional responses that seem a bit too much. Most lie somewhere in between.

**EMPATHY:** sometimes after RHD a person will seem less empathetic; they don’t seem to care about others in the way they did before. This is likely related to difficulties with understanding/expressing emotion and Theory of Mind deficits.

## Seeking Help

**Speech-Language Pathologists** can diagnose and treat the disorders of cognition and communication described here.

**Occupational Therapists** can treat cognitive deficits, particularly those that affect the ability to conduct activities of daily living.

*It is important to remember that not everyone with RHD will have all of the deficits here; each person has a unique combination of deficits and levels of severity of those deficits.*

More information about these deficits and suggestions for dealing with them can be found at [www.righthemisphere.org](http://www.righthemisphere.org)

[righthemisphere.org](http://righthemisphere.org)



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## Right Hemisphere Brain Damage

Damage to the right hemisphere (side of the brain) can cause a variety of problems that affect thinking, memory, communication, and emotions. Because the right side of the brain controls the left side of the body, there also may be weakness or numbness in the left hand, arm, leg, or left side of the face.

We use the acronym RHD to refer to Right Hemisphere Damage. RHD can be caused by stroke, traumatic brain injury, tumors, or some early stages of degenerative brain diseases.

The cognitive (thinking), communication, and emotional problems can be subtle and sometimes it may take a while to figure out exactly what is different... you may have a sense that the person is not quite who he/she used to be, but there’s no single thing that sticks out.



## Cognitive Deficits

**EXECUTIVE FUNCTION:** Executive functions are a group of thinking skills that include planning, organization, reasoning, problem-solving, and insight. Some people with RHD report they can't think as well as they used to, or they lose track of what they're doing; some people appear to think more concretely than they did before; some may appear to have lost their ability to think logically.

**AWARENESS:** Reduced awareness of deficits, or anosognosia (an-o-sag-no-zha), is when the person is not aware of some or all of the problems caused by the stroke. They are not being stubborn or simply not accepting the problems – their brain is not recognizing the problems.

**MEMORY:** After RHD some people have difficulty remembering events that happened in the recent past, others may not remember things they should do in the future.

**ATTENTION:** Attention allows us to focus or concentrate on a task and to keep focused over a period of time. RHD can make it harder to focus attention, to ignore distractors, or to sustain attention long enough to complete a task. It can be much harder to do more than one thing at a time. Another complication is that many tasks that were automatic before the RHD now require thinking and concentration.

**UNILATERAL NEGLECT:** This is a disorder in which people appear not to see things that are located towards their left side. Neglect occurs when the brain does not pay attention to things on one side. It is not a problem with vision or eyesight. Some people with neglect (but not all) can shift their attention when reminded to look to the left. Unilateral neglect can appear to get better and worse throughout a day or week, depending on what the person is doing and how much is going on in their environment.

## Communication Deficits

**APRAGMATISM:** Pragmatics involves lots of different ways we communicate with each other: the words and sentences we choose, the topics we talk about in different situations, the prosody or tone of voice, gestures, facial expressions, body language, and the social 'rules' used to have appropriate conversations or interactions. *Apragmatism*, is a new label for these difficulties in conveying or comprehending the meaning or intent of a message and can include any or all of the different modes of communication (words, prosody, and/or body language). *Prosody* and *theory of mind* are two abilities that can be affected by right hemisphere stroke and can contribute to apragmatism.

**PROSODY:** Prosody is the melody of speech - changes in rate, pitch, loudness, emphasis, and pausing that conveys emotion and helps convey what a speaker really means. *Aprosodia* (a-pro-so'-de-a) is the name for difficulty controlling their own prosody or understanding another person's prosody. In the first situation, their speech may sound flat and monotone and it can be difficult to judge their mood/emotion or what they're trying to communicate (humor, sarcasm, etc). In the second, they may appear insensitive to others because they do not pick up on emotion through tone of voice, and they may not get jokes or sarcasm.

**THEORY OF MIND:** This is the ability to understand that other people have perspectives, emotions, knowledge, and feelings that are different from your own. People with RHD have problems with theory of mind, making it difficult for them to see someone else's perspective or point of view, or understand another person's feelings. They may appear to be rude, indifferent, uninterested or insensitive to another person's mood, feelings, needs or ideas. It is important to remember that the behaviors are due to the RHD; it is not that they no longer care about others or that they intentionally being selfish or inconsiderate.