

Rancho Levels Overview

The Rancho Levels of Cognitive Functioning is a useful tool during rehabilitation of the person with a brain injury. Cognition refers to a person's thinking and memory skills. The levels describe typical stages of recovery after a brain injury. Identifying which level the child is at, helps the rehab team focus on the child's abilities and develop an appropriate treatment plan. Each person will progress at their own rate, depending on the severity of the brain damage, the location of the injury in the brain and length of time since the brain injury. Some individuals will pass through each of the ten levels, some will skip levels, and others may only progress to a certain level.

Rancho Levels of Cognitive Functioning

Level	Child's Response
Level I No response - total assistance	Complete absence of a change in behavior when stimulated Appears to be in a deep sleep
Level II Generalized response – total assistance	Non-purposeful body movement <ul style="list-style-type: none"> • To pain or touch • To familiar sound or smell
Level III Localized response – total assistance	Localized, specific body movement <ul style="list-style-type: none"> • Pulling at tubes and catheters • Inconsistently follows simple commands • May turn toward familiar sounds
Level IV Confused / agitated – maximal assistance	Agitated <ul style="list-style-type: none"> • Constant movement • May try to get out of bed • Thrashing about in bed • Extra sensitive to movement, light, noise Confused <ul style="list-style-type: none"> • May not make sense • Very short attention span • May be rude or aggressive • Unsafe
Level V Confused inappropriate / non-agitated – maximal assistance	Appears alert Follows simple command most of the time Easily distracted Confused <ul style="list-style-type: none"> • Memory severely impaired • Unable to separate past from present Inappropriate <ul style="list-style-type: none"> • Agitated behavior remains • Conversations disjointed

<p>Level VI Confused, appropriate – moderate assistance</p>	<p>Confused, appropriate – moderate assistance Behavior is less bizarre and more appropriate Follows simple directions Performs simple previously learned tasks with help Newly learned tasks quickly forgotten Becomes confused in unfamiliar settings</p>
<p>Level VII Automatic appropriate – minimal assistance</p>	<p>Oriented to person and place within familiar environments, needs moderate assistance for orientation to time Performs highly familiar tasks with minimal assistance Remembers some things but at a slower pace, some carry-over of new learning Unaware of specific impairments, unsafe without supervision in unfamiliar settings May be oppositional and uncooperative</p>
<p>Level VIII Purposeful appropriate – standby assistance</p>	<p>Alert and oriented Remembers past and present events Uses new skills appropriately Independent with age-appropriate activities May exhibit ongoing deficits</p> <ul style="list-style-type: none"> • Decreased ability to learn; slower thought processing • Limited tolerance for stress • Difficulty with reasoning and judgment • Confusion in new or unusual situations • Easily fatigued • Self-centered
<p>Level IX Purposeful appropriate – standby assistance upon request</p>	<p>Independently shifts back and forth between tasks and completes them accurately for at least 2 hours. Uses daily schedule, planner, “to do” lists and records information for later use with assistance when requests. Initiates and carries out familiar personal, household, work and leisure tasks with assistance when requested. Aware of impairments when they interfere with activities but needs help to anticipate problems and avoid them May be easily irritable and has low tolerance for frustration.</p>
<p>Level X Purposeful/appropriate – modified independent</p>	<p>Able to handle multiple tasks simultaneously in all environments but may require periodic breaks. Able to maintain memory devices Independently initiates and carries out steps to familiar and unfamiliar personal, household, work and leisure tasks but may need more time or strategies to complete them. Periods of depression may occur Irritability and low frustration when sick, tired or under emotional stress Social interactions are consistently appropriate.</p>

Adapted with permission from “Traumatic Brain Injury in Children and Teens: A Guide for Families” 2002. Produced by the New Hampshire Emergency Medical Services for Children Project at Dartmouth Medical School.