Auditory Function

CAN MY LOVED ONE HEAR?

If he/she is in a Coma or Vegetative State/Unresponsive Wakefulness Syndrome (VS/UWS), he/she would not respond to noises in the environment except for reflexive responses.



Auditory startle: a reaction to a noise in the environment

- · Reflexive (unconscious) behavior
- · Possible Responses:
 - Blinking
 - Startle reaction of the body/ jump
 - Increased activity/movement
- If a loved one responds with a startle, it is likely they have the ability to hear



Localization to sound: turns head or eyes in the direction of a sound

- Possible Responses:
- Eye gaze towards a sound source
- Head turn (toward or away from a sound source)

DOES MY LOVED ONE UNDERSTAND ME?

If he/she is in a Minimally Conscious State (MCS), he/she may show an inconsistent or variable command following.



Command Following: Performs the movement requested

(e.g. Move your arm; Look at the ceiling; Wiggle your toes; Open/Close your mouth; Touch the ball)

- · It is recommended that different commands are trialed
- It is recommended that time is given between presentation of commands to allow your loved one time to process the information (approximately 5-10 seconds)
- It is recommended to video any command following that occurs irregularly to show at follow-up doctor's appointments
- If a loved one follows a simple command, they may understand language. If they do not follow
 a command, it does not mean they do not understand language; they may still understand and
 not be able to do what you are asking

(over)



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ACTIVITIES FOR INCREASING ATTENTION TO SOUND



- Clap your hands loudly outside of your loved one's visual field, drop an object near the bedside, ring a bell, yell his/her name and/or beat a drum. These should not be performed frequently, but occasionally throughout the day to track any changes in response
- Talk to your loved one
- Provide frequent, brief reminders about their current situation (where he/she is, why he/she is here, date/time, etc.)
- Schedule specific times during the day to play music/TV. Do not play these items as background noise, as this may distract your loved one and decrease responsiveness to other commands. Choose specific, meaningful music or shows for your loved one which may elicit a positive or negative response
- Record and play familiar voices for your loved one
- Ask your loved one to follow a simple command such as, "raise your arm" or "move your leg." Keep language simple and allow time for your loved one to process and respond to the information
- Ask your loved one to look at or touch a specific object, while holding various objects in their field of view

Coma: Unconscious state; behaviors are all reflexive and not intentional

Vegetative State/Unresponsive Wakefulness Syndrome (VS/UWS): Unconscious state; behaviors are reflexive and not intentional; may demonstrate an auditory startle or auditory localization

Minimally Conscious State (MCS): Variable behavioral evidence of consciousness, showing some intermittent awareness of themselves or the environment

