Disorders of Consciousness

Dodd Rehabilitation Hospital

THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

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Learning About Disorders of Consciousness (DOC)

A disorder of consciousness (DOC), or impaired consciousness, is a state where consciousness has been affected by damage to the brain.

Consciousness requires being awake and aware. Being awake, also called wakefulness, is the ability to open your eyes and have basic reflexes, such as coughing, swallowing and sucking. Being aware is related to more complex thought and can be harder to assess.

States of DOC

The states of DOC include: coma, unresponsive wakefulness syndrome (UWS), also called a vegetative state (VS), and minimally conscious state (MCS). Each state has its own characteristics.

The Ranchos Scale (also called Rancho Los Amigos Scale or RLAS) is used to rate how someone with a traumatic brain injury is recovering. There are 10 levels of recovery on the scale, which can help the care team decide when they are ready for rehabilitation. As the person recovers, they improve through the levels. If their injury is due to something other than a traumatic event, different milestones are used to measure recovery.

Coma

In a coma, a person shows no signs of being awake or has no response to any type of stimulation. When your loved one is in a coma, you will observe:

- Their eyes will stay closed.
- They show no response to pain or things they hear.
- They will not move with any purpose.

You may hear this referred to a Rancho Level 1. Your loved one has no response and will need total assistance for all of their daily care.

Vegetative State (VS)

Vegetative state (VS) is also known as unresponsive wakefulness syndrome (UWS). In this state, there are periods of time when the person is awake and may show generalized responses to stimulation. **Generalized responses** are movements that happen due to **reflex**, meaning they are automatic and not done with purpose. This may include:

- Opening their eyes.
- Reacting to pain by stiffening their body or pulling away.
- Reacting to sounds, such as blinking in response to a loud noise or turning their head or eyes in the direction of a noise.
- Blinking their eyes when an object is brought close up.

- Making mouth movements, such as biting on a toothbrush when placed inside their mouth, coughing, or swallowing.

It can be hard for family members to know if movements are a reflex or done with purpose.

When your loved one is in this state, they will need total assistance with daily care. You may hear it referred to as Rancho Level 2.

Minimally Conscious State (MCS)

In a minimally conscious state, the person has times of wakefulness. They show purposeful responses to things happening around them.

In this state, your loved one can do one or more of the behaviors listed, but not every time. For example, your loved one may follow a simple instruction one time, but may not follow instructions at all another time.

When your loved one is in an MCS, you may observe them:

- Opening their eyes and awake for longer periods of time.
- Following simple instructions.
- Following people with their eyes as they move around the room.
- Reaching for and grasping objects.
- Speaking some sounds and words that others may or may not understand.
- Indicating yes or no by talking or gesturing.
- Automatic movements, such as scratching their head, crossing their legs, or moving their hair out of their eyes.

When your loved one is in this state, you may hear it referred to as a Rancho Level 3. While they show responses to what is happening around them, they still need total assistance.

Minimally Conscious State + (plus) and – (minus)

Minimally Conscious + (plus) and Minimally Conscious – (minus) are terms you may hear used to describe your loved one in a minimally conscious state. They are based on whether or not there is evidence of language function. **Language functions** are behaviors that show that they understand and can respond to language. These include:

- Following commands.
- Verbalizing words that you can understand.
- Answering yes/no questions.

Minimally conscious state + means your loved one has shown behaviors of language function.

Minimally conscious state – means your loved has shown behaviors of being in a minimally conscious state, but not behaviors of language function.

Comparing features across states

Features	Coma	Vegetative State	Minimally Conscious State
Eye opening	no	yes	yes
Sleep and wake cycles	no	yes	yes
Visual tracking	no	no	often
Identifying objects	no	no	sometimes
Follows commands	no	no	sometimes
Communicates	no	no	sometimes
Shows emotion	no	no	sometimes

Emergence from minimally conscious state (MCS)

Emergence refers to regaining consciousness and "emerging" from a minimally conscious state. Your loved one will be able to interact with objects and communicate. When they are conscious, they interact with their environment with purpose. There are two behaviors that are used to know if your loved one has emerged into a conscious state. They are considered to be emerged when they are able to:

1. Correctly answer simple yes and no questions consistently.
2. Use two objects, such as a comb or pencil, consistently.

What happens after emergence?

After emergence from a minimally conscious state, your loved one will continue to have a period of confusion. This period is called **acute confusional state or posttraumatic amnesia**. Some of the behaviors include:

- Acting lost or confused. This includes not being able to keep track of the correct place and time.
- Having a lot of trouble with attention, memory, and other mental abilities.
- Changing levels of responsiveness.
- Being restless and waking up at night. They may feel very tired, and sleep during the day.

After emergence, your loved one may start progressing through the different Ranchos Levels for traumatic brain injury. This does not happen in a straight line, meaning there may be levels or parts of these levels that your loved one will skip over.

Helping Your Loved One

Talking to and around your loved one

- Talk to the person about familiar items (people, places, activities) in a calm and low voice. Do not talk about his or her condition.
- Do not talk in front of the person as if they are not there. They may be able to hear you even if they do not respond.
- Reassure them (“you are doing great”) and help orient them (“you are in the hospital”).
- Always give praise when progress is made.
- Keep messages short when talking to the person. Use short and simple sentences.

Stimulating their senses

Sensory stimulation uses familiar things that are meaningful to your loved one.

- Use touch, smell, light, sound, and temperature for 5 to 15 minutes.
- Play their favorite music, television show, and taped messages from family members.
- Bring in familiar and favorite items, such as cologne, flowers, and scents from foods.
- Take breaks between stimulation sessions, so you do not overwhelm them.
- Change their surroundings to prevent too much stimulation or too little stimulation. For example, when visiting, turn off the TV.
- When no visitors are present, request that staff play their favorite music or turn on the TV for short periods of time.
- Schedule routine rest periods to support the sleep-wake cycle and prevent too much stimulation. Your loved one’s health care team will help you with setting a good schedule.

Learn more about sensory stimulation on page 11.

Engaging with them

- Tell the person who you are every time you enter or leave the room.
- If the person’s eye are open, encourage eye contact.
- Give visual cues. Keep a clock and calendar nearby. Decorate the room with pictures of family, friends, and pets.

Using tasks and basic information

- Encourage the person to do simple tasks, such as answering “yes or no” in whatever way they are able. Allow enough time for a response. Check back to make sure you understood movements correctly if the person cannot speak.
- Provide basic information. Keep the person oriented by stating the place, day of the week, time, and daily activities.

Rehabilitation at Dodd Hospital

Providing a safe environment for recovery

Your loved one will have a private room to help limit what is going on around them. They will get a daily schedule that has all their care needs, therapy times, and rest periods on it.

Their care team will create a plan to help keep your loved one safe. This may also be needed to prevent them from pulling off medical equipment, such as IVs, tracheostomy tubes, feeding tubes, and braces.

A sitter or safety coach may be assigned to be with your loved one 24 hours a day as a way to prevent them from pulling at the equipment. A safety coach may be an option instead of using restraints.

Assist levels

An assist level describes how much help your loved one needs with an activity. These include:

- **Dependent:** Needs someone to do everything for them.
- **Maximum:** Needs someone to help with 75% of the activity. For example, they need a helper to put their shirt on most of the way, but can pull the shirt down in the front.
- **Moderate:** Needs someone to help with 50% of the activity. For example, they can put both arms into shirt, but need help to pull the shirt over their head and down in back.
- **Minimum:** Needs help with 25% or less of the activity. For example, they can get their shirt on all the way, but still need help pulling it down in the back.
- **Contact Guard:** Needs no help with the activity itself, but needs a helper touching them with one or two hands for safety. For example, they can sit on the edge of the bed to put a shirt on, but need a helper to keep a hand on their shoulder for balance.
- **Supervision:** Needs no help at all, with helper supervising from a safe distance. For example, they can get dressed while the helper supervises from across the room. The helper is still able to get to them quickly, if needed.

Therapy types

Your loved one's therapy team at Dodd includes an occupational therapist, physical therapist, speech therapist, and rehabilitation psychologist. They will all work together as a team to provide rehab services through a variety of interventions. Each team member has a unique role. Here is a summary to help you get familiar with each type.

Occupational Therapy

The role of an occupational therapist (OT) is to address your loved one's vision and motor function. The OT will focus on the use of familiar daily activities, such as dressing and grooming. They use these daily activities to work on skills, working toward emergence from DOC.

Physical Therapy (PT)

The role of a physical therapist (PT) is to address different areas of mobility. This can be sitting, standing, or walking. There are different types of equipment they can use to assist your loved one. The PT will monitor their response to activity. Our goal is to determine the level of activity they can handle and begin their rehab from there.

Speech Therapy (SLP)

The role of a speech language pathologist (SLP) is to assess your loved one's ability to understand and express themselves. They work to find a "yes/no" communication system that works for your loved one to express their needs, such as pain level or basic care needs. They will address your loved one's ability to swallow and assess how ready they are to eat and drink by mouth.

Music Therapy

A music therapist may be part of your loved one's therapy team. This therapy uses music to aid in the recovery of areas such as speech and language, cognition (thinking and understanding), and movement. The music therapist will use live music, such as singing familiar songs or playing instruments, or recorded music to stimulate arousal and meaningful responses.

Rehabilitation Psychology

The role of a rehab psychologist is to provide behavioral and psychological treatment for both you and your loved one. They are another resource for the team to provide education and support. They can implement behavior plans to assist with managing challenging behaviors your loved one may experience during their recovery.

Intervention types

Family Training and Education

A major part of the program is providing family training and education on all parts of your loved one's care and rehab.

- Each member of the team will provide education on the diagnosis and plan for your loved one.
- Education will be provided on many different topics, such as behavior and cognitive challenges, as well as sensory stimulation and their environment.
- Therapists will provide hands on training and education on how to move and communicate with your loved one. This may include how to move them in bed and how to transfer them from different surfaces, such as from the bed to a chair or a chair to standing. They will also show you how to support your loved one when they are ready to walk with assistance.

Management and Prevention of Contractures and Spasticity

Contracture is the tightening of tissue that is normally stretchy. When the tissue is not able to stretch, it causes problems with normal movement. **Spasticity** is when the muscle tightens when it is moved quickly, preventing normal movement.

Therapists will assess for contractures and spasticity throughout your loved one's rehab stay. There are many ways to manage these, including:

- Retraining the muscles, nerves, and brain to communicate with each other to improve movement and function.

- Prolonged stretching of the muscles that have contracture or spasticity.
- Splinting, casting, or bracing can help manage, reduce, and prevent contractures or provide prolonged stretching.
- Medicine can be used to help, if appropriate.

Hypertonicity may also be seen. This is when a muscle is tight even at rest. This may be a bent elbow, bent wrist, clenched fist and thumb inside the fist, or a resting position for the leg that is not normal. It is hard to move the muscle in the opposite way to how it is bent.

Seating and Positioning

Therapists will work to find the best position for your loved one during activity and at rest. Having the best position during therapy helps with participation and your loved one's ability to complete tasks. The goal is to find the best position so they can be upright and out of bed more. This also helps to prevent skin issues and contractures.

Therapists also will assess your loved one's ability to be in an upright position, called upright tolerance. Different equipment can be used to increase the amount of time they spend upright and out of bed, which can help their ability to stay sitting up and standing.

Sensory Integration

Sensory integration is how the brain takes in information from the senses and responds to them. Therapists will use sensory input during therapy sessions, with a goal of preventing your loved one from being overstimulated. Being overstimulated can cause your loved one to react negatively because there is so much to process. Therapists will change the environment to prevent this. They will work in quiet areas to limit extra noise. They will also follow the "no stimulation" schedule to ensure your loved one gets periods of rest to help their brain recover.

Therapeutic Transitions and Transfers

Therapists will work with your loved one to find the best way to transfer them from one surface to another. These transfers can be from the bed, wheelchair, toilet, or shower, for example. At first, this they may need a lot of help from the caregiver, but the goal is to transition so your loved one is taking part in the movement as much as possible.

Activities of Daily Living (ADL)

The occupational therapist (OT) will assess your loved one's ability to complete daily care activities, such as grooming and dressing. They will work with your loved, to take part in these daily tasks as much as possible.

Level and Method of Oral Intake

The speech language pathologist (SLP) will determine when it is safe for your loved one to start trying food or medicine by mouth. This helps reduce the risk of aspiration, which is when food or liquid goes into the airway. They will decide when your loved one is ready to be assessed on how they swallow. These tests include:

- **Bedside swallow evaluation:** This is the first assessment for how your loved one is swallowing. They will try different foods and liquids while the SLP assesses and monitors the safety of how they are swallowing.

Based on this, they may need more testing, including:

- **FEES (fiberoptic endoscopic evaluation of swallowing):** A thin scope with a camera attached is passed through the person's nose. The therapist can see the different parts of the throat and airway during the swallow process.
- **MBS (modified barium swallow) study:** The person is seated in front of a special type of X-ray machine, called a fluoroscopy. They are given different foods coated with barium, a safe substance that let the therapist see how the foods are swallowed using the X-ray.

Method of Communication

A communication system is a way for a person to communicate with or without using words. Examples include using yes/no signs, head nods, and thumbs up or down. The speech therapist will work with your loved one and the rest of the team to find the best communication system.

This will allow your loved one to be able to engage with their environment. The therapist will assess for any barriers to communication as well. It is important for family and staff to use the same communication system after leaving the hospital.

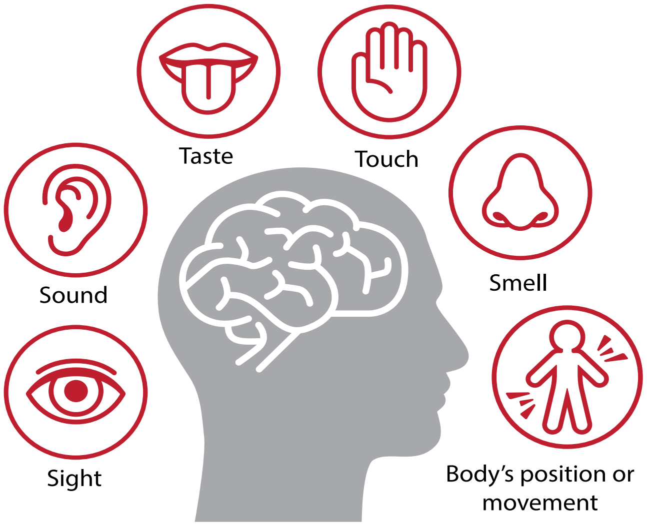
Equipment

The therapy team will work together to determine the type of equipment your loved one will need when discharged. The team will provide you with education on the equipment and how to use it. An equipment recommendation will be provided closer to your loved one's discharge from Dodd Rehabilitation Hospital.

Sensory Stimulation for Coma Recovery

When someone is recovering from coma, it is often hard for them to stay awake and alert. Sensory stimulation is a way of using their senses to make them more alert, called raising their arousal level.

This helps promote the healing process by using the stimulation that works best for them.



How sensory stimulation is done

Sensory stimulation uses familiar things that are meaningful to your loved one. This may be a picture of family, familiar smells or their favorite music.

Tips for Success

Stimulate more than 1 sense at a time.
Use things that were meaningful to your loved one before their injury. Try to use something that stimulates 2 senses at a time. For example, a video of a family member telling a story stimulates both their hearing and vision.

Use familiar voices.
Familiar voices can have the biggest impact on arousal level. Talk with your loved one during visits and encourage visitors to do the same. For family and friends not able to visit, use your cell phone speaker to let your loved one hear their voices.

Do it many times a day, for short periods of time.
When visiting your loved one, use sensory stimulation many times a day, for short periods of time. This helps provide the sensory input they need, without tiring them out all at once.

Leave items for therapists to use.
The therapy team will also be using this method with your loved one. It is helpful if you bring in meaningful items and leave them in the room for therapists to use, such as:

- Pictures of family, friends, or pets
- Room decorations from home
- Favorite blanket, pillow, or stuffed animal
- Shampoo, deodorant, body spray, or lotion they used before their injury
- Clothes they used to wear

Ideas to stimulate the senses

Sight (visual)

- Pictures or video of family, friends, and pets
- Videos, TV shows and movies
- Familiar faces
- Mirror

Hearing (auditory)

- Radio
- TV shows, movies, videos with family members talking in them
- Recordings of familiar voices
- Music

Touch (tactile)

- Light touch
- Deep pressure or massage
- Hot or cold wash cloths
- Different textures: clothing, blankets, or lotions

Smell (olfactory)

- Perfume or body spray
- Lotions
- Shampoo
- Deodorant
- Room fragrance or air freshener
- Essential oils

Taste (gustatory)*

- Different flavors: sweet, salty, or sour
- Toothpaste

*If they have eating limits, this should only to be done by trained staff.

Sense of body position or movement (proprioceptive)

- Change in body position: rolling over onto side, laying down to sitting up
- Pressure through hands or feet
- Movement of arms and legs

“No stimulation” breaks

Having rest breaks from any stimulation is important to allow the brain time to rest. Stop or lessen the sensory stimulation during this time to let your loved one rest. These breaks are not punishment for them. They are needed to help them recover. Your loved one’s care team can guide you in knowing when breaks are needed and how long they should be.

Ways to reduce stimulation:

- Close the door
- Turn the lights off or close the blinds
- Turn off TV, radio, phone, and other electronics
- Have no visitors

If you have any questions about sensory stimulation or your loved one’s recovery, please ask their health care team.

Measuring Coma Recovery

Coma Recovery Scale-Revised (CRS-R)

Consciousness means being awake and aware of yourself and your surroundings. Someone with a brain injury may have an impaired level of consciousness, called a disorder of consciousness (DOC).

Phases of recovery

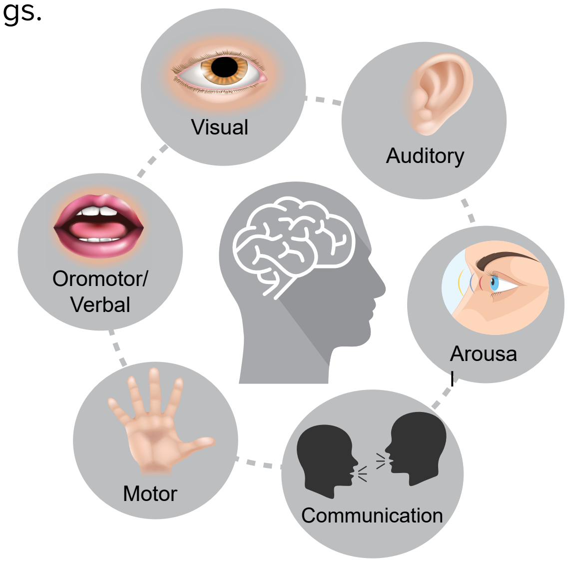
As people recover from severe brain injury, they usually go through phases of recovery. They may slow or stop in one of the phases. These include:

- Coma: Complete unconsciousness, with no eye-opening.
- Vegetative state: Opens eyes and has periods of being awake, but is not aware of self or environment.
- Minimally conscious state: Shows signs of being aware of self and environment, but this does not happen regularly.
- Post traumatic confusional state: Awake and aware, but often confused.
- Consciousness: Has awareness of self and surroundings.

How recovery is measured

The Coma Recovery Scale-Revised (CRS-R) is a tool used by the health care team to measure and track the recovery of someone diagnosed with DOC. It has been proven to be an accurate way to gauge their progress.

There are 6 areas the tool measures for the level of consciousness. Each area starts with behaviors that happen without thinking and progresses to behaviors that need thought or effort to do.

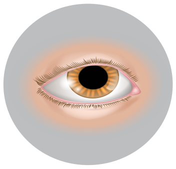


Auditory Function (Hearing and Understanding)

Measures their ability to respond to their name and noises, and to follow directions. At first, they may only startle after hearing a loud noise. As they recover, they may be able to look to where sounds are coming from and follow commands to do an activity.

The levels of ability are:

1. Will move or startle in response to hearing a loud noise (startle).
2. Will turn head or eyes to try to find where a sound is coming from (localize).
3. Will follow a simple command 75% of the time, such as “raise your hand” (comprehension/understanding).
4. Will follow a command every time it is given (comprehension/understanding).



Visual Function (Seeing and Reading)

Measures their ability to use their eyes to focus on an object, follow an object, or choose an object when given options.

The levels of ability are:

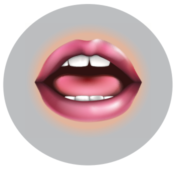
1. Will blink and startle when an object is brought close to their eye.
2. Will focus on an object and find it again when the object is moved (fixation).
3. Will look at their face when a mirror is placed in front of them (fixation).
4. Will follow an object with their eyes as it is moved around, without losing focus (visual tracking).
5. Will reach for an object when it is placed in front of them. This shows their ability to find an object (localization).
6. Will look at or reach for a specific object when given 2 objects and asked to choose. This shows their ability to recognize and choose objects.

Motor Function (Movement)

Measures their ability to take in sensory information (such as touch, sound, or sight) and to move in response to it in a purposeful way.

The levels of ability are:

1. Will move their arms or legs when touched (generalized response).
2. Will move away from an uncomfortable touch, such as a pinch or poke (withdrawal).
3. Will move toward a touch on their other arm or leg (localization).
4. Will turn hand over to grasp the object when an object is placed on the back of their hand (object manipulation).
5. Will do behaviors we do without thinking, such as nose scratching, crossing legs, grabbing at tubes, or holding onto bed rails (automatic motor movements).
6. Will use 2 different everyday objects correctly, such as a comb (functional object use).

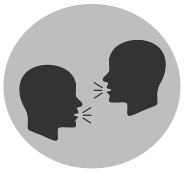


Oromotor/Verbal Function (Mouth Movements and Voice)

Measures their ability to move their mouth and voice words. These start at responding to having an object in their mouth, and progress to making sounds or saying words.

The levels of ability are:

1. Will do mouth movements as a reflex, such as biting down or chewing when something is presented to their mouth, or changes posture or moves body.
2. Will lick their lips or open their mouth when food is nearby as a reflex.
3. Will make sounds or noises spontaneously or when asked.
4. Will say words, but the words may not make sense or are the same word over and over.
5. Will say two different words when asked, such as mom and dad, or write them if speech is difficult.

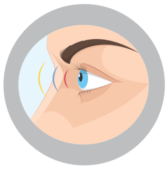


Communication/Basic Understanding/Expression

Measures their ability to share or exchange information with others. This can be done with words or actions, like head nods, or a thumbs up or down. At first, they may not respond at all to questions. As they recover, they may be able to answer yes or no questions.

The levels of ability are:

1. Will not have any type of response when asked a question.
2. Will respond or react to at least 2 questions, when asked a yes or no question. This shows that they are trying to communicate, even if the answer is not correct.
3. Will answer questions correctly, when asked. This shows they can understand basic information and communicate their needs.



Arousal (Awake and Focus)

Measures their ability to stay awake and pay attention during a task. At first, they may have trouble staying awake. As they recover, they may need less stimulation and be able to stay awake more on their own.

The levels of ability are:

1. Will need stimulation to open eyes during the assessment.
2. Will keep eyes open during the assessment without stimulation.
3. Will pay attention during the assessment, with no more than 3 times of not responding.

How the CRS-R is scored

Your loved one will have a total score and a score for each area of the CRS-R. Their scores may vary by area, based on what they are able to do. They may show more recovery in one area over another and it is common to see scores change from day to day. The therapist will share your loved one’s scores and explain the results to you. Remember, the score itself is not as important as the behaviors they are doing.

Emergence

Emergence means that your loved one is coming out of, or emerging from, a minimally conscious state. They can communicate in a way that can be understood, or they can recognize and use familiar objects. As part of the CRS-R, they can answer yes or no questions and use objects correctly.

CRS-R use at Dodd Rehabilitation Hospital

The CRS-R is given two times a week by trained DOC therapists during therapy time. This is often when family is not in the room.

The assessments have a specific way they are done, but therapists will also do them in a way that helps your loved one to do their best. For example, the therapist may use a picture of family in tests if they seem to focus better on these. The goal is to have their best performance every time the assessment is given. You can help by preventing noises or distractions from visitors.

If you have questions about the CRS-R or your loved one’s progress, please ask their care team.

Paroxysmal Sympathetic Hyperactivity

Medical Emergency

What is paroxysmal sympathetic hyperactivity?

Paroxysmal sympathetic hyperactivity (PSH) is a sudden nervous system response to pain or any stimulus that the body finds unpleasant, called noxious stimuli, such as bathing, stretching, and other daily activities. This sudden response can happen to people with a severe brain injury and is a medical emergency.

Problems can result from your nervous system in being in an over active state for a longer period of time, leading to more brain injury and cell death. This condition may also be called autonomic storming or storming.

Causes

PSH may be caused by any irritation to the body. Irritations can be caused by:

- Care or treatments such as tracheostomy care or suctioning, body repositioning, or bathing
- A full bladder or incontinence
- A full bowel or constipation
- Bladder infection or bladder stones
- Abdominal problems, like gall stones, appendicitis, kidney stones, or ulcers
- The scrotum being compressed
- Pain
- Menstruation
- Pressure injury or wounds
- Infections

Signs

You may have PSH if you have 4 of the following 7 signs:

1. High blood pressure
2. High heart rate
3. High respiratory rate
4. High temperature
5. Body stiffening
6. Sweating
7. Overactive response to stimulation

Families and loved ones can help by carefully watching for causes that may trigger storming. They can help by keeping a record of any trends in the time of day and length of when storming happens.

What to do when this happens

- Find and stop the irritation cause or source.
- Check your body position and skin for anything that could irritate or cause pain.
- If there is a catheter, look for kinks or a full drainage bag.
- Check for bladder and/or bowel accidents.
- Apply a cool cloth on forehead and provide a quiet, calm environment (close door, turn off lights and television).

What to do if the signs do not go away

- Take the medicines ordered by your doctor to manage symptoms. Medicines may be prescribed at scheduled times to prevent PSH or to manage the symptoms, such as high blood pressure, increased heart rate, agitation, or sweating.
- Call your doctor and go to the emergency department if symptoms do not go away when the cause is removed and after taking medicine.
- Tell the doctor or emergency department staff about your signs and symptoms, what you have done, and how your signs and symptoms have changed.

How to lessen your chances of this happening

- Take medicines as prescribed
- Keep skin clean and dry
- Do care tasks at the same time to lessen the number of times irritations may happen
- Avoid extreme temperature changes

How long will a person with a brain injury experience storming?

Most cases of PSH pass within a few days. Patients who have more severe storming may have the symptoms for weeks to months that need ongoing treatment.

Nursing Goals

The nursing staff at Dodd works closely with the doctor to manage medical issues and prevent problems. They help with comfort and hygiene, provide nutrition and medicines, and ensure a safe environment. They will assist your loved one with the skills they learned in therapy. They will also provide you with education on how to care for your loved one.

Nursing staff

The nursing staff includes nurses, patient care associates (PCAs), and safety care associates (SCAs or safety coaches). A safety coach can be used instead of restraints to keep your loved one safe. For example, they can keep your loved one from pulling on their lines and tubes.

Nursing interventions

Daily Hygiene

Nursing staff will provide your loved one with daily care. They will provide showers every other night and bed baths on the other nights. Nursing staff will train you on specific techniques and equipment to do these hygiene tasks safely with your loved one.

Skin Care

Your loved one's skin is assessed daily by nursing staff to ensure it remains healthy. A plan of care is created that includes a schedule for turning and repositioning in a way that helps prevent skin problems that happen from being in one position too long. You will be educated on the signs of skin problems, how to perform skin checks, and how to keep your loved one's skin healthy.

Airway Management

At Dodd, there is 24-hour access to respiratory therapy for any consults or treatments your loved one may need. Your loved one may have a tracheostomy (trach), which is a breathing tube that is placed to assist with breathing. If your loved one has a trach, nursing staff will provide trach care and cleaning each shift.

Cleaning of the trach tube is done to keep it clean, prevent a clogged tube, and decrease the risk of infection. It includes suctioning and cleaning the different parts of the tube and skin around the tube. You will be get hands-on training for trach cleaning and suction, and managing issues with the airway.

Nutrition Management

While your loved one is at Dodd, nursing staff, doctors, and dietitians will work together to assess their nutritional needs. They will work toward a more normal feeding schedule.

If your loved one is not able to eat by mouth, they may be fed through a tube. Tube feeding, also called enteral nutrition, provides nutrients without swallowing or chewing. For shorter-term use, the tube goes in through the nose. Nursing staff will provide you with training on how to give tube feeds if your loved will need this after leaving Dodd.

Your loved one may have a percutaneous endoscopic gastrostomy (PEG) tube if tube feeding is needed for a longer period of time. This type of tube is placed into their stomach through the abdominal wall.

Bowel and Bladder Management

Your loved one may not be able to control or know if they need to go to the bathroom, called incontinence. They may not be aware they have gone. The team will develop a plan that may include these things:

- Medicine
- Toileting schedule
- Catheter: Emptying the bladder using a thin tube called a catheter. This is done if the person is unable to empty their bladder completely on their own.
- Bowel program: A treatment done at a set time to stimulate the bowels to cause a bowel movement. The main goal is to promote regular bowel movements. This helps prevent involuntary bowel movements, constipation, and impacted bowels.

Nursing staff will assess your loved one for signs of **bladder infection or UTI (urinary tract infection)**. Signs of a UTI include pain or burning when peeing, fever, urge to pee frequently, pressure in the lower belly, pee that smells bad or looks cloudy or reddish, and pain in the back or side below the ribs.

You will get training on your loved one’s bowel and bladder routine, so you can feel confident at home.

Medicines

Your loved one will be on medicines to help improve and treat different areas that are difficult for them. This is a list of common medicines and what they are used for. This not a full list, but includes common ones that the doctor may prescribe to your loved one. You will get more information about each medicine that is prescribed.

Neurostimulant medicines

These medicines are often used to increase arousal, initiation, attention, memory, or help with aphasia. Aphasia is when damage to the brain has affected their language, such as their ability to speak, read, write, and understand language.

- Ritalin (methylphenidate)
- Symmetrel (amantadine)
- Sinemet (carbidopa and levodopa)
- Aricept (donepezil)
- Namenda (memantine)

Mood, sleep, and pain medicines

These medicines are often used for agitation, sleep disturbances, depression, or improving mood.

- Amitriptyline
- Trazodone
- Sertraline
- Citalopram
- Fluoxetine
- Melatonin

Spasticity management medicine

Spasticity is when a muscle is stiff, but can still be stretched. It prevents normal movement. These medicines are often used to treat spasticity if it is limiting function or movement, or causing pain.

- Baclofen
- Dantrium (dantrolene sodium)
- Botulinum toxin injection
- Tizanidine
- Flexeril (cyclobenzaprine)

Caregiver Wellness

When a loved one becomes very ill, life may become both physically and emotionally stressful. Making your wellness a priority while providing care for a loved one is hard, but staying healthy helps your loved one, too.

Make a plan for your wellness

It is common during the early weeks and months following a major life change to feel afraid, angry, helpless, guilty, overwhelmed, frustrated, or sad. You may cry a lot, have headaches, or have trouble sleeping. You may be easily distracted and have a hard time concentrating. This is normal. Here are some ways to take care of yourself while supporting your loved one.

Ways to take care of yourself as a caregiver

- Get plenty of rest, eat healthy meals, and exercise.
- Ask for help from family, friends, or clergy.
- When help is offered, let them know what they can do, such as cooking meals, housework, running errands, or providing child care.
- Plan an hour a day or an afternoon each week away from being a caregiver.
- Talk with others about your feelings. Join a support group. Talk to a counselor or therapist.
- Write down your feelings in a journal.
- Practice meditation and other relaxation techniques, such as prayer, yoga, and tai chi.
- Take a walk or do other exercise, work in the garden, take a bubble bath, listen to music, read, or watch TV. These things can help rest your mind and relax.

Getting help

Accepting and asking for help can be hard. You may expect that you should not have to ask. As a caregiver, it is important to reach out to family and friends for help, so you do not wear yourself down.

Ask for help often to keep from feeling overwhelmed or isolated. Friends and family often want to help but may not know how. They fear being in your way or are keeping their distance out of respect for your privacy. They just need a word from you to step in and help you carry the load.

Ways family and friends can help:

- Sit with your loved one while you do something for yourself or do other tasks that need to get done
- Run errands for you, such as grocery shopping
- Provide weekly meals
- Help with home or car maintenance
- Help with pet care

For more on this, read *Caregiver Wellness at Dodd Rehabilitation Hospital* at go.osu.edu/pted3912.

Case Management and Social Work

There are many things to plan for and coordinate as your loved one prepares to leave the hospital. Their case manager and social worker will provide the needed support through this process.

Case Management

The role of the case manager is to coordinate your loved one's discharge from the hospital. The case manager assists with:

- Getting referrals for continuing services
- Ordering durable medical equipment
- Connecting you with doctors as needed
- Scheduling appointments for after discharge

Case management will also work with the rest of the team to help schedule family training. They will work with the doctors to get your loved one's medicines ready to take home. They can also connect you with community resources.

Social Work

The role of the social worker is to provide resources and support for you and your loved one. They are knowledgeable about the guardianship process and can assist families in applying for both individual and estate guardianships. They can also assist with the application process for social security, disability, and Medicaid.

Social work will work with the rehab psychologist to get expert evaluations completed for the applications. They can provide community resources, support groups to join, and any other resources that you may need. They are also available for counseling and emotional support while your loved one is in the hospital.

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