

Traumatic Brain Injury and Acute Inpatient Rehabilitation

For more information, contact your nearest TBI Model Systems. For a list of TBI Model System go to: <http://msktc.washington.edu/tbi/findms.asp>

This publication was produced by the TBI Model Systems in collaboration with the Model Systems Knowledge Translation Center (<http://msktc.washington.edu>) with funding from the National Institute on Disability and Rehabilitation Research in the U.S. Department of Education, grant no. H133A060070.

What is inpatient rehabilitation?

Inpatient rehabilitation is designed to help you improve function after a moderate to severe traumatic brain injury (TBI) and is usually provided by a team of people including physicians, nurses and other specialized therapists and medical professionals.

What are the common problems addressed by inpatient rehabilitation?

- Thinking problems – difficulty with memory, language, concentration, judgment and problem solving.
- Physical problems – loss of strength, coordination, movement and swallowing.
- Sensory problems – changes in sense of smell, vision, hearing and tactile touch.
- Emotional problems – mood changes, impulsiveness and irritability.

Am I eligible to receive inpatient rehabilitation?

You will receive inpatient rehabilitation if:

- You have a new TBI that prevents you from returning home to family care.
- Your medical condition is stable enough to allow participation in therapies. For people relying on Medicare for funding, this means being able to participate in at least 3 hours of therapy per day. (Specialized rehabilitation in a nursing facility is an option for those who cannot participate in 3 hours of rehabilitation per day.)
- You are able to make progress in therapies.
- You have a social support system that will allow you to return home or to another community care setting after reasonable improvement of function.
- You have insurance or other ways to cover the cost of treatment.

How does inpatient rehabilitation work?

Your therapies will be designed to address your specific needs. You will receive at least 3 hours of different types of therapy throughout the day with breaks in between, 5-7 days a week.

You will be under the care of a physician who will see you at least 3 times a week.

Most TBI rehabilitation inpatients participate in:

- Physical therapy
- Occupational therapy
- Speech therapy

Each of these therapies may be provided in an individual or group format.

Rehabilitation team

Rehabilitation care usually involves a team of highly trained practitioners, called your “multidisciplinary team.” This team works together every day and shares information about your treatment and recovery. Once a week all the team members meet formally to discuss your progress and discharge plan in a team conference.

Members of your multidisciplinary team are:

Physician: This may be a physiatrist (physician whose specialty is rehabilitation medicine), neurologist or other specialist familiar with TBI rehabilitation. He/she is in charge of your overall treatment and directs your rehabilitation program. The physician will:

- Evaluate your physical abilities, along with your thinking and behavior.
- Prescribe medication as necessary to manage mood, sleep, pain and nutrition.
- Prescribe tailored therapy orders for physical therapy, occupational therapy and speech therapy.

Rehabilitation Nurse: The rehabilitation nurse works very closely with the physician in managing medical problems and preventing complications. The nurse will:

- Assess a variety of issues, including self-care, bowel and bladder function, sexuality, nutrition and mobility.
- Reinforce the treatments of the other team members.
- Provide you and your family with education about your brain injury and medications.

Psychologist/Neuropsychologist: He/she will assess and treat problems you may have with thinking, memory, mood and behavior. The psychologist/neuropsychologist may also provide counseling and education to your family members, thus ensuring that they have an understanding of the treatment plan and possible outcomes.

Physical therapist: The physical therapist (PT) will help you improve your physical function and mobility. The PT’s role is to teach you how to be as physically independent and as safe as possible within your environment. This is accomplished through therapeutic exercises and re-education of your muscles and nerves, with the goal of restoring normal function. Specific goals to be accomplished in the physical therapy gym include strengthening your muscles and improving endurance, walking and balance.

Occupational therapist: Occupational therapists (OT) provide training in activities of daily living to help you become more independent. These activities typically include eating, bathing, grooming, dressing, and transferring to and from your bed, wheelchair, toilet, tub and shower. The OT will work with you on underlying skills, such as strength, balance and trunk control. Depending on the center, occupational therapists may also:

- Assess your thinking skills, such as orientation, memory, attention, concentration, calculation, problem-solving, reasoning and judgment.
- Assess your visual problems.
- Help you manage more complex activities such as meal preparation/cooking, money management, and getting involved in community activities.
- Recommend and order appropriate equipment you may need before returning home.

Speech-language pathology therapist: The speech-language pathology therapist is responsible for the treatment of speech, swallow and communication problems. She/he will:

- Help you with communication problems such as difficulty understanding what others say or expressing yourself clearly.

- Teach you exercises and techniques to improve your ability to speak and express yourself, including exercises to strengthen the muscles used in speech/swallowing, and speech drills to improve clarity.
- Assess your language skills, such as orientation, memory, attention, concentration, calculation, problem-solving, reasoning and judgment.
- Provide a communication device if you have a breathing tube (tracheostomy).
- Evaluate your swallowing abilities if you have difficulty swallowing (dysphagia).
- If needed, make recommendations about the types and consistencies of foods and drinks that you can safely consume.

Recreation therapist: The role of the recreation therapist is to provide recreational resources and opportunities in order to improve your health and well-being and get you reconnected in the community. Returning to recreation and/or finding new recreational activities is an important part of recovery. This may include outings or in-hospital social and group activities.

Social worker: The social worker will provide you and your family with information about community resources and help plan for your hospital discharge and return to the community. She/he will:

- Help determine your eligibility for benefits, such as Medicaid and Social Security.
- Make referral to community resources for you and your family.
- Provide ongoing supportive counseling to help you adjust to your new situation.

Nutritionist/Dietitian: The dietitian evaluates your nutritional status and makes recommendations about proper nutrition and diet. Patients are frequently malnourished and underweight after a hospital stay. Individualized attention to diet and caloric intake assists in recovery. The dietitian will also educate you regarding menu selection, proper food consistencies, diet changes, etc., as it fits your needs.

How can your family members offer support during inpatient rehabilitation?

Family members can:

- Get to know the team members caring for you.
- Ask when and how they can participate in therapy sessions.
- Ask about improvements that they can expect to see during rehabilitation.
- Ask questions about the rehabilitation therapies.
- Ask about and discuss the discharge process early on in your stay, since the time in inpatient rehabilitation can be short.

What happens after inpatient rehabilitation?

Leaving inpatient rehabilitation can be an anxiety-producing transition. Many questions can arise at the time of discharge, such as:

- How will I be able to continue to progress after I leave the hospital?
- Who will take care of me when I go home?
- What if I need more help than my family can provide for me?

To ease this transition, social workers make sure that you have what you need to safely continue recovery after you leave the hospital.

As the date of your discharge approaches, depending on your particular setting, the social worker, care manager, and/or discharge planner will meet more regularly with you and your family to form a discharge plan. They can:

- Provide emotional support.
- Help you get the care you need. This includes where you will get the services you need, who will provide them, and maximizing use of insurance benefits.

- Identify community resources (e.g., finances, home care, transportation, and community service organizations) that can help you function well in your community. This often includes government services such as SSI (Supplemental Security Income), SSDI (Social Security Disability Insurance), Medicaid, Medicare, and other disability benefits.

Discharge Plans

Every discharge plan is different and reflects a patient's unique personal and social situation. Recovery from a brain injury takes months and even years, so after discharge most people will require ongoing therapy. Discharge plans fall roughly into one of four categories:

- **Discharge Home, with Referral for Home-Based Rehabilitation Services:** This discharge plan is appropriate for those people who are well enough to be at home, but who are not well enough to travel for therapy. In these cases, the social worker will make a referral to a nursing agency that will visit you at home, assess your needs, and provide needed services, which may include physical and occupational therapy and a home health attendant. However, family is almost always needed to provide some of the help that you will need at home.
- **Discharge Home, with Referral for Outpatient Services:** This discharge plan is appropriate for those people who are well enough to be at home and able to travel to an outpatient clinic for therapy. In this case, family members will provide all the help and supervision you need at home, and your rehabilitation therapies will be provided through an outpatient clinic that is convenient to you.
- **Discharge to a Residential Brain Injury Rehabilitation Program:** This discharge plan is appropriate for people who are well enough to live in the community but require a supervised and structured environment. This option is generally best for persons who do not need inpatient supervision by a nurse or physician but may benefit from continued therapy

to transition back into the community. The availability of these programs varies based on insurance type and where you live.

- **Discharge to a Nursing Facility:** This discharge plan is appropriate for people who are not yet ready to return home and who would benefit from continuing their rehabilitation therapies in a structured environment with nursing care. The nursing facility can provide nursing care and ongoing rehabilitation therapy in specialized rehabilitation wings (sometimes called subacute rehabilitation), usually for up to three months. Length of stay varies based on medical need, degree of progress in that setting, and availability of rehabilitation benefit. If your team recommends a nursing facility that provides subacute rehabilitation, the social worker will help you find one that meets your individual needs.

Disclaimer

This information is not meant to replace the advice from a medical professional. You should consult your health care provider regarding specific medical concerns or treatment.

Source

Our health information content is based on research evidence whenever available and represents the consensus of expert opinion of the TBI Model System directors.

Authorship

The TBI and Inpatient Rehabilitation factsheet was developed by Brian D. Greenwald, MD, in collaboration with the Model Systems Knowledge Translation Center.