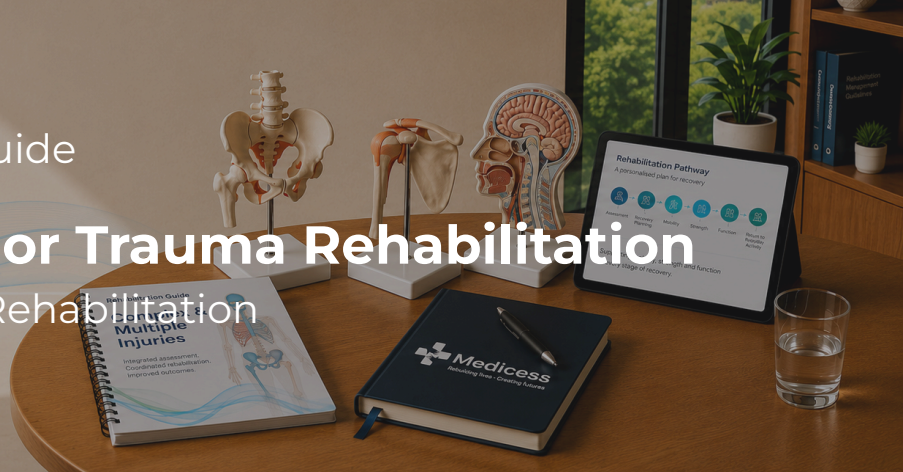


Understanding Major Trauma Rehabilitation

Treatment, Recovery and Rehabilitation



Major trauma describes serious injuries that may affect several parts or systems of the body and can have substantial physical, psychological, cognitive and social consequences. Recovery often extends well beyond emergency treatment and surgery. This guide explains how rehabilitation is assessed and planned following major trauma, the role of multidisciplinary treatment, how function is progressively restored and what may influence longer-term recovery and independence.

Key message — rehabilitation should begin as early as the person is medically able to participate and should be based on individual needs and meaningful goals. Major trauma recovery is rarely determined by injury severity alone; coordinated physical, psychological, cognitive and vocational rehabilitation can remain important for many months after hospital discharge.

Injury at a Glance

Injury	Serious traumatic injury causing significant physical or functional impairment, often involving multiple injuries
Common causes	Road traffic collisions, falls from height, workplace incidents, sporting trauma and other high-energy accidents
Typical symptoms	Pain, weakness, restricted mobility, fatigue, reduced independence and possible cognitive or psychological difficulties
Diagnosis	Emergency and specialist assessment supported by imaging, investigations and continuing functional assessment
Treatment options	Resuscitation, surgery or other specialist treatment, pain management and management of individual injuries
Rehabilitation	Coordinated multidisciplinary rehabilitation addressing physical, cognitive, psychological, social and vocational needs
Expected recovery	Highly individual; substantial recovery may continue for many months or longer
Possible complications	Persistent pain, weakness, reduced mobility, infection, blood clots, psychological difficulties, cognitive problems and long-term disability



Understanding the Injury

Major trauma is not a single injury. It describes serious trauma that may involve combinations of fractures, chest or abdominal injuries, soft-tissue damage, nerve injury, spinal injury, limb loss or brain injury. Some people require intensive care and several operations, while others have fewer injuries but develop complex rehabilitation needs.

The effects therefore depend on both the injuries sustained and the person's circumstances. Reduced mobility, prolonged hospitalisation, pain and periods of restricted weight-bearing can cause muscle loss, weakness and reduced fitness. Injury may also affect thinking, mood, sleep, confidence, relationships and the ability to work.

Importantly, the apparent severity of the original injuries does not always predict rehabilitation complexity. A person-centred assessment is therefore required throughout recovery.

Symptoms and Diagnosis

Initial assessment following major trauma concentrates on identifying and treating injuries that threaten life or limb. Clinical examination, X-rays, CT scanning, MRI and other investigations may be required depending on the injuries involved.

Once the person is medically stable, assessment increasingly considers function as well as individual injuries. This includes mobility, strength, balance, pain, breathing, self-care, communication, cognition, nutrition and the ability to manage everyday activities.

Psychological wellbeing should also be assessed because anxiety, low mood, traumatic stress, sleep disturbance and adjustment difficulties may affect recovery. Possible head injury requires particular attention because cognitive symptoms can initially be subtle.

Rehabilitation needs should be reassessed as recovery progresses because difficulties may become apparent only when activity and independence increase.

Treatment Options

Immediate treatment is determined by the injuries sustained. Priorities may include resuscitation, controlling bleeding, stabilising fractures, treating chest or abdominal injuries and protecting neurological function. Surgery may be required urgently or undertaken in stages as the person's condition allows.

Pain management is important not only for comfort but also because uncontrolled pain can restrict breathing, movement, sleep and participation in rehabilitation. Medication and other pain-management strategies are therefore adjusted as recovery progresses.

Some injuries require temporary immobilisation, restricted weight-bearing or precautions following surgery. These restrictions should be clearly defined so that rehabilitation can continue safely without unnecessary inactivity.

Treatment decisions should consider their likely effect on future function as well as immediate medical needs. Rehabilitation specialists may therefore contribute while acute treatment is still underway, particularly where injuries are complex or significant long-term disability is anticipated.



Rehabilitation and Recovery

Rehabilitation should begin during acute care as soon as the person is medically ready and able to participate. Early priorities may include maintaining joint movement, respiratory function and muscle activity, preventing avoidable deconditioning and gradually restoring sitting, standing and mobility. Rehabilitation should continue around necessary surgical or weight-bearing restrictions rather than automatically waiting until these have ended.

As recovery progresses, an individual rehabilitation plan should identify meaningful goals. Physiotherapy may address movement, strength, balance, gait, cardiovascular fitness and physical endurance. Occupational therapy focuses on independence in personal care, domestic activities, equipment, adaptations and eventual return to community life. Depending on the injuries, rehabilitation may also involve rehabilitation medicine, psychology, speech and language therapy, neuropsychology, dietetics, orthotics, specialist nursing and pain services.

Psychological recovery is an integral part of major trauma rehabilitation. Fear, anxiety, low mood, altered body image, traumatic stress and loss of confidence can affect engagement and participation and may require specific treatment.

Following discharge, rehabilitation increasingly focuses on independence, stamina and meaningful activity. Home exercise and self-management may complement supervised treatment, with goals reviewed as abilities improve.

Return to work, education, driving, family responsibilities, recreation and sport should be considered according to individual progress rather than fixed timescales. Vocational rehabilitation may involve workplace assessment, employer liaison, adjustments or a phased return.

Some people recover steadily, while others experience setbacks, further surgery or persistent symptoms. Regular reassessment allows rehabilitation intensity and goals to change with evolving needs.

Recovery Timeline

First Days

Medical stabilisation, pain control, rehabilitation assessment, respiratory care and safe early movement where possible

2 to 6 weeks

Progressive mobility, maintaining movement and strength, self-care, nutrition and psychological support

6 to 12 weeks

Increasing independence, strengthening, balance, endurance and progression according to healing and restrictions

3 to 6 months

Community rehabilitation, greater independence, functional strengthening and consideration of work or education

6 to 12 months

Progression of work, recreation and wider participation; management of persistent physical or psychological difficulties

12 months+

Further functional improvement may continue; rehabilitation focuses on remaining limitations, independence and long-term participation

Recovery after major trauma varies considerably according to the combination of injuries, complications and individual circumstances. The following stages are therefore indicative rather than fixed.



Factors Affecting Recovery

Recovery is influenced by the type, number and severity of injuries, complications, intensive-care or hospital length of stay and whether further surgery is required. Pre-existing health, age, physical fitness, smoking and nutrition may also influence progress.

Psychological wellbeing, pain, fatigue, cognitive difficulties, family support, housing, employment demands and access to appropriate rehabilitation can be equally important. Engagement with rehabilitation and achievable goal-setting support progress, but recovery is not always linear. Individual needs should therefore be reviewed rather than predicted from injury severity alone.

Possible Complications and Red Flags

Possible complications

- Persistent pain, stiffness and muscle weakness
- Reduced mobility, balance or physical endurance
- Delayed healing or complications affecting individual injuries
- Infection or wound problems
- Blood clots or respiratory complications
- Persistent fatigue and sleep disturbance
- Anxiety, depression or post-traumatic stress symptoms
- Cognitive, communication or neurological difficulties
- Loss of independence or difficulty returning to work

Seek prompt medical advice if...

- Breathing suddenly becomes difficult or chest pain develops.
- A limb becomes acutely swollen, painful, cold, pale or blue.
- New weakness, numbness, confusion or neurological symptoms develop.
- A wound becomes increasingly red, swollen or produces discharge.
- Fever develops with worsening general health.
- Pain or function deteriorates unexpectedly after previously improving.

Frequently Asked Questions

What is this injury more commonly referred to?

Major trauma is also commonly referred to as serious injury, severe trauma, multiple trauma, polytrauma or multiple serious injuries.

How long does recovery from major trauma take?

There is no single recovery period because major trauma covers many different combinations of injuries. Significant improvement commonly continues for months, and people with complex injuries may continue to make functional gains beyond the first year.

Will I need specialist rehabilitation?

Not everyone requires specialist inpatient rehabilitation, but people with complex physical, cognitive, psychological or functional needs may benefit from specialist services. Rehabilitation needs should be assessed early and reviewed as circumstances change.

Why am I still extremely tired after leaving hospital?

Fatigue is common following serious injury, surgery, intensive care and prolonged inactivity. Sleep disruption, pain, medication, emotional distress and loss of physical conditioning may contribute, so persistent or worsening fatigue should be discussed during rehabilitation review.

When can I return to work?

Return to work depends on recovery, residual symptoms and occupational demands rather than injury date alone. A graded or phased return, temporary adjustments and vocational rehabilitation may help where work is physically or cognitively demanding.

Can rehabilitation continue after I leave hospital?

Yes. Rehabilitation commonly continues through outpatient, community or specialist services, supported by an individual programme and self-management. Needs should be reviewed because priorities often change as independence and activity increase.

What if my recovery seems to have stopped?

A plateau does not necessarily mean that further recovery is impossible. Persistent pain, weakness, psychological difficulties, cognitive problems or previously unrecognised complications should be reassessed so that rehabilitation goals and treatment can be adjusted appropriately.

Medicess Clinical Insight

Major trauma rehabilitation is most effective when recovery is considered in terms of the whole person rather than individual injuries in isolation. Physical healing may progress at a different rate from psychological recovery, cognitive recovery, independence or readiness to resume employment and social roles.

Rehabilitation therefore needs to remain responsive. Early assessment, coordinated multidisciplinary treatment and regular review allow priorities to change as the person moves from survival and medical stability towards independence, participation and meaningful long-term function. Delayed progress should prompt reassessment rather than simply continuation of an unchanged programme.

References and Further Reading

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Disclaimer

This guide is intended for general educational purposes only and does not constitute individual medical advice. Treatment, rehabilitation and recovery vary between individuals. Readers should follow the advice of their treating healthcare professional.