

## Occupational Therapy in Polytrauma

Polytrauma is defined by the Department of Veterans Affairs as “two or more injuries to physical regions or organ systems, one of which may be life threatening, resulting in physical, cognitive, psychological, or psychosocial impairments and functional disability” (Poorman et al., 2009, p. 42). According to the World Health Organization, incidents such as fall injury, traffic accidents, violence, and fires may result in polytrauma, the leading cause of death and disability around the world (2004). Polytrauma represents the ultimate challenge to trauma and rehabilitative care and requires immediate action by all specialties involved. The initial emphasis is medical management of a polytrauma patient to ensure survivability, followed by minimizing disruption or impairment to functional performance.

### Role of Occupational Therapy

Individuals with polytraumatic injury require intensive long-term occupational therapy services to identify what level of independence can be restored and determine appropriate strategies to achieve additional functional performance. This is done in collaboration with the patient to ensure that the plan of care focuses on occupation-based activities that are important and/or necessary in his or her daily life. Occupational therapy is offered for patients with polytrauma in all relevant settings throughout the continuum of care, from admission to an ICU, through outpatient rehabilitation facilities, to reintegrating into the community and workplace. In addition to physical and cognitive rehabilitation, psychological and emotional support addressing short- and long-term effects of the patient’s impaired ability to participate in daily occupations due to posttraumatic stress disorder (PTSD) or other behavioral health issues is also a specific focus of occupational therapy services.

The educational background of occupational therapists, including knowledge of human development, anatomy, physiology, kinesiology, education, cognition, psychology, sociology, behavior, communication, and activity analysis, support a comprehensive and collaborative (with patient, family/caregivers, and team members) approach to evaluation and intervention. This puts the focus on performance skills while addressing barriers to resumption of all of the patient’s occupational roles, from performing daily activities to becoming as independent as possible.

### Occupational Therapy Evaluation

Occupational therapists use a variety of evaluation tools to assess physical, cognitive, and psychosocial factors that impact performance skills. They also use extensive knowledge of task analysis and the impact of environment and other contextual factors on performance to determine current and potential barriers. Once identified, these barriers can be addressed through modifications or adaptations of the activity, the context, or the performance skill. For example, a patient may present what appears to be coordination impairment; however, after an evaluation, the occupational therapist may identify impaired visual skills, which are contributing to the person’s inability to perform functional tasks. The therapist then determines the best therapeutic interventions required to promote better performance abilities and minimize barriers.

### Intervention

The goal of occupational therapy intervention is to improve or restore the patient’s functional performance and ability to participate in valued and/or necessary activities and roles. Unique to occupational therapy intervention is the focus on integrated concepts of motivation and a sense of purpose, using activities important to each client as the basis of therapy, based on his or her goals, needs, wishes, skills, and/or barriers. The following are examples of the range of interventions used with patients with polytrauma:



- Wound care, manual therapy, and therapeutic exercise to increase motion, strength, and activity tolerance as a foundation to enhance function in various daily activities.
- Activity performance to progress toward independence in family, social, and professional roles, facilitating opportunity to restore income and economic stability.
- Cognitive training to enhance executive function, such as strategies for problem solving and improving memory, attention span, and self-esteem. These are critical for activities of daily living (ADLs), instrumental ADLs, and work performance.
- Community re-integration through interventions like driver rehabilitation to manage anxiety and drive safely when exposed to road conditions that are perceived as threatening, such as being “boxed in” by other cars, loud noises, or unexpected items in or on the side of the road.
- Oculomotor and binocular vision training, and visual perceptual training.
- Fine and gross motor coordination and dexterity activities, such as fastening buttons on a shirt, using a computer, or walking to retrieve dishes from cabinets.
- Adaptations or modifications such as designing and fabricating orthotics for ADL performance, and for exploring leisure activities such as using a freestyle swimming terminal device on a prosthesis.
- Patient and family education to learn and incorporate new strategies into habits, routines, and lifestyles.
- Development of a healthy sense of belonging and locus of control to restore self-worth, purpose, and intrinsic motivation, which assist in diminishing adverse behavioral effects such as PTSD symptoms.

Occupational therapy services are provided as part of a comprehensive team approach to the individual with polytrauma. The client-centered physical and psychosocial focus typical of the occupational therapy perspective particularly benefits this challenging diagnostic population.

## Conclusion

“Occupational therapy practitioners recognize that health is supported and maintained when clients are able to engage in home, school, workplace, and community life” (AOTA, 2014). In polytrauma rehabilitation, the occupational therapist can be involved early in the process, engaging the patient in self-care tasks as soon as he or she is medically stable. Activities as simple as upper-body washing or bathing and tooth brushing help transition the client from dependency to active participation in his or her recovery. Attention is also paid to the psychosocial impact of the patient’s impaired functional abilities in all areas of his or her life. It is in these moments of everyday life that the significance of such a significant injury is experienced, and where occupational therapy is particularly effective. Occupational therapy enables self-directed change throughout the client’s journey to recovery.

## References

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