• an adaptive sports program including a
multi-phased running program,
swimming, snow skiing, water skiing,
track and field, basketball, volleyball,
fencing, archery, shooting, golf,
kayaking and scuba diving.

Specialized Equipment

On the third floor, a 21 foot climbing tower
with auto-belay promotes strengthening,
agility, and aerobic conditioning.

In the natatorium there is a six lane pool for
pre-running activities, kayaking, water
basketball and volleyball, and general
swimming. The Flowrider®, a unique indoor
activity adjacent to the pool, improves
balance, coordination, strength, motivation,
and confidence.

CASE MANAGEMENT

A full-time case manager is assigned to each
patient in the Center for the Intrepid. These
professionals work closely with the patients,
their families, and the entire staff of the Center
for the Intrepid to:

• coordinate the development of a
customized, multidisciplinary team plan of
care.
• monitor the plan of care to report any
problems to the appropriate team
member(s)
• seek solutions to improve the delivery of
care and Patient Outcomes
• identify and assist with all needs of the
patient and the family
• function as the initial point of contact for
multiple referrals utilized to augment care
at BAMC

BEHAVIORAL MEDICINE

The ultimate goal for the Center for the
Intrepid Behavioral Medicine Service is to
enable patients to maximize their potential for
emotional, mental, spiritual, and physical
recovery. Behavioral Medicine provides:

• comprehensive psychiatric support
services to amputees and their families
from inpatient through convalescence
and rehabilitation
• individual therapy, support group
meetings, medication management,
family support group, and cognitive
assessment
• treatment facilitation for all behavioral
health needs

PROSTHETICS

The prosthetics-orthotics team provides
services for those who have undergone limb
loss and limb salvage procedures. The
Intrepid Dynamic Exoskeletal Orthosis
(IDEO) was developed at the CFI for those
who have undergone limb salvage
procedures. In-house production methods are
augmented by:

• computer assisted technology for
design, milling, and production of
prosthetic devices
• wireless technology for remote
adjustment of upper and lower
extremity prostheses
• design and fabrication of unique
specialty limbs for sports and other
activities
• high-tech materials in combinations of
acrylic resins, carbon fiber composites
and titanium
MEDICAL DIRECTION

The medical care carried out in the Center for the Intrepid is under the direction of the Physical Medicine and Rehabilitation physicians. The “Rehab Docs” work closely with the Rehab team and with other medical and surgical specialists to coordinate all care.

MILITARY PERFORMANCE LAB

The Military Performance Lab (MPL) seeks to analyze human motion, with particular emphasis on amputee gait (walking). The information collected in the military performance lab is ultimately used to help physicians, physical therapists, and prosthetists adjust their treatment plans and improve patient function.

Computer Assisted Rehabilitation Environment (CAREN)

The CAREN is a 21 foot dome with a 300 degree screen upon which a variety of “virtual realities” may be displayed. This simulator is the first of its kind in the world, and holds much promise for the rehabilitation of the patients at the CFI. In addition, the CAREN will be central to the research mission of the center.

Gait Lab

- up to 24 cameras use infrared light to track the position of reflective markers placed on a patient’s body. Joint angles are calculated and analyzed.
- force plates in the floor, parallel bars, and treadmill measure ground reaction forces in three directions. Using these factors, the torque that muscles or prosthetic components are producing can be determined.
- electromyography (EMG) is used to assess the electrical activity that is given off during muscular contraction. The EMG system can detect both the timing and intensity of muscular contractions.

OCCUPATIONAL THERAPY

CFI Occupational Therapy offers evaluation and rehabilitation for orthopedic injuries such as fracture, nerve injury, amputation and other soft tissue injuries with the goal of restoring health and function following injury or illness. Treatment activities are designed so patients may successfully perform occupational tasks and activities of daily living (ADL) like bathing, dressing, shopping, cooking, writing, performing household chores and everything needed to function on a day-to-day basis. Therapists and technicians provide:

- education and training in modified or compensatory strategies to complete everyday activities after injury.
- activities targeted to reduce pain, improve range of motion, strength and enhance overall function and maximize independence.
- ergonomic training and work conditioning
- driver’s training
- functional capacity evaluations

ADL Apartment

The purpose of the ADL apartment is to provide patients a real world environment in which to practice everyday skills. OTs use this apartment to evaluate and treat patients to make sure that patients are both physically and/or mentally capable of safely performing specific activities of daily living. The apartment has:

- a computer workstation equipped with state of the art voice recognition software, compact keyboards, and a height adjustable desk top
- a fully equipped kitchen and bathroom
- a comfortable living room

Firearms Training Simulator (FATS)

This state of the art system simulates the firing of different weapons in a host of settings. Using the system, patients practice different firing techniques and may qualify with weapons systems common to the military.

Community Reintegration

The Occupational Therapy staff also coordinates a community re-integration program for the amputee patients. This program includes a wide variety of experiences outside the clinic setting. Activities such as horseback riding, paint-ball, archery, kayaking, and golf allow the patients to be challenged and have fun at the same time.

PHYSICAL THERAPY

CFI Physical Therapist provide evaluation, diagnosis, treatment, and rehabilitation for orthopedic injuries such as fracture, nerve injury, amputation and other soft tissue injuries with the goal of restoring health and function following injury or illness. The PT team utilizes multiple cutting edge interventions focusing on patients’ abilities and interests, not their disabilities. In order to accomplish “total rehabilitation”, the PT team provides:
• comprehensive amputee rehab from preprosthetic training through functional reintegration
• the Return to Run Pathway, developed at the CFI to train new IDEO users to maximize the function of the brace.
• standard and novel strengthening methods to include blood-flow restricted strengthening.