Amputee Rehabilitation Program

The Amputee Rehabilitation Program treats patients as they recover from the loss of an extremity. Studies show that amputation patients treated at an acute rehabilitation hospital, like Rehabilitation Hospital at King Fahad Medical City (RH-KFMC), have better outcomes and a higher level of functional independence. At RH-KFMC, our comprehensive approach to rehabilitation after amputation focuses on the post-surgical, pre-prosthetic and post-prosthetic rehabilitation—ultimately helping our amputation patients reintegrate into their daily activities. The program utilizes state of the art technologies and highly specialized team. Prostheses and orthotics are manufactured and fitted onsite.

The rehabilitation of the person with limb loss is a complex process and period of training to learn how to function using the prosthesis. The rehabilitation program is designed to restore a meaningful quality of life through return to function in the family, community and workplace.

About the Condition

Amputation is the removal of a body extremity by trauma or surgery. As a surgical measure, it is used to control pain or a disease process in the affected limb, such as malignancy or gangrene. In some cases, it is carried out on individuals as a preventative surgery for such problems. A special case is the congenital amputation. Whatever the cause, an amputation can be devastating.

Who We Treat

We provide a number of specialized services to meet the needs of individuals with amputation of extremities including:

- Upper Extremity(s) amputation
- Lower Extremity(s) amputation

The RH-KFMC Continuum of Care

- Before discharging a patient, our Team will recommend services the patient will need in order to transition to the next level of care. This might include our Day Treatment Program or Outpatient Services. We might also refer patients to other health care facility as appropriate.
- Our job is to build a roadmap for patients’ recovery — and to support them along the journey as they rebuild their life.

Team Highlights

- The program is directed by physicians who are board-certified in physical medicine and rehabilitation.
- Our team works with individuals and their families to develop an individualized treatment plan that meets their needs and goals. Based on a patient’s individualized plan, the rehabilitation team may include: a physician team leader, rehabilitation nursing, social worker/case manager, psychologist, physical therapist, occupational therapist, art therapist, vocational councilor, therapeutic recreation specialist, and dietician.

Program Highlights
At RH-KFMC, we maximize life. We help individuals regain their abilities and their confidence. We help them regain their independence as much as possible so that they can return to living safely at home or in the community.

Short-term and long-term goals are set for patients and reexamined regularly. The weekly team rounds and meetings (Care Conferences) are times were all team share their findings and plans for rehabilitation care.

To deliver individualized rehabilitation services according to best practice guidelines we developed detailed “Amputation Clinical Pathway” which is followed and monitored on a regular basis.

Throughout the acute rehab process family and caregivers are a critical part of the treatment team, and receive important training to help them cope with changes in patients’ behavior and skill level. Patients and family meetings are conducted regularly as appropriate. At least two patient/family meetings are conducted during a patient stay to actively involve the patient and his family in the planning and implementation of the rehabilitation program. These meeting include the “Goal Planning Patient/Family Meeting” which is conducted shortly after admission and the “Discharge Planning Patient/Family Meeting” conducted within the last two weeks prior to patient discharge.

The Program: The program is generally divided in two phases; the pre-prosthetic phase and the prosthetic training phase.

Pre-Prosthetic Phase of Rehabilitation: The period between the surgical amputation and the fitting of an artificial limb (prosthesis) is referred to as the pre-prosthetic phase of rehabilitation. Treatment goals during this time are:

1. **Promote healing of the involved limb.** Proper healing of the wound is essential for preventing infection, and for ability to eventually wear prosthesis. Often patients come out of surgery with a rigid cast or dressing to assist with keeping the swelling down and provide for the initial shaping of the stump. Careful attention must be paid to the healing of the wound as well as ongoing skin care.

2. **Reduce swelling and prepare limb for prosthetic fit.** In order for the prosthetic limb to fit properly and for the patient to be able to use it for daily tasks the swelling must be kept to a minimum. As the wound heals, therapists will work with the patient to wrap the stump with elastic wraps or stockings that minimize swelling and shape the stump for the best fit possible into a prosthetic limb.

3. **Improve strength, endurance, and range of motion**: Being able to use

4. **Prevent stiffness** in the joints remaining.

5. **Facilitate independence** prior to arrival of prosthesis.

6. **Enhance daily living skills.**

7. **Facilitate coping skills** for both patient and family.

8. **Provide education** regarding skin care and prosthesis usage

9. **Assist in prosthesis prescription and fit.**

10. **Facilitate desensitization of involved limb.** After limb amputation, an area of hypersensitivity can develop along the healed surgical incision. This can make wearing a compression bandage painful as well as interfere with prosthetic use. Special desensitization exercises can help decrease this uncomfortable sensation. The technique involves the gradual advancement of texture and pressure application to the hypersensitive area. To begin, lightly rub a smooth textured material across the hypersensitive site. Once the sensation becomes comfortable, advance the texture as well as the pressure applied. Desensitization should be performed throughout the day. Texture advancement is as follows: Silk, Cotton, Velvet, Corduroy, Wool.

11. **Pain control as needed.** **Phantom pain** describes a painful sensation that can occur in a limb that is no longer present due to trauma or surgical amputation. It is often described as a shooting or burning type pain. The sensation can be constant for some people, but intermittent for others.
Prosthetic Training Phase: The period of the fitting of an artificial limb (prosthesis) is referred to as the prosthetic training phase of rehabilitation. Treatment goals during this time are:

- Fitting of prosthesis
  - Educate patient on appropriate use of shrinkage devices and prosthetic socks.
  - Reinforcement of residual limb (stump) skin care
  - Range of Motion activities and positioning
  - Education on progressive strengthening exercises of all extremities in preparation for prosthetic training.
  - Wheelchair mobility indoor and outdoor
  - Balance and gait training with prosthesis outdoor and indoor: stairs, ramps, curbs...etc.
  - Endurance training
  - Reinforce content of Home Exercise Program to patient, family or caregiver, as necessary
- Provide instruction in proper prosthesis use for walking, transfers, and activities of daily living
- Instruct patient in proper prosthesis donning and doffing
- Provide instruction in prosthesis use and maintenance
- Facilitate community re-entry

More Information

To learn more about admitting a patient to the Amputees’ Program, see the Admissions & Referrals section.