#### CONNECTICUT VALLEY HOSPITAL

#### **Physical Therapy Services**

#### PT Equipment Procedure #4

#### Re: Axillary/Forearm Crutches

Date: March 20, 2000 Revised: October 19, 2008

#### **Description:**

High-strength dual or single upright aluminum or wood assistive ambulation device with adjustable height of arm and handgrips to accommodate heights from 4'7" to 6'6".

#### **Indications:**

To provide protective weight bearing for healing fractures, sprains, and ligamentous tears used to increase base of support and therefore improve balance and gait stability.

#### **Precaution:**

Type of crutches (Axillary or Forearm) should be determined by a physical therapist. Improper usage of axillary crutches can cause axillary compression injury. Crutch fit and gait pattern should be checked.

#### **Procedure:**

Fitting – Use parallel bars and safety belt for fitting and assessment.

- A. Axillary Fit with the patient standing. The crutch height with the pads should be 2" below the axilla. Handgrips should be even with wrist level to provide approximately 15° of elbow flexion with the crutches positioned one foot to the side and in front of the feet.
- B. **Forearm** Fit with the patient standing. Position the cuff around the forearm and reduce or elevate the height of the crutch so that it provides 15-20° of elbow flexion when the crutch is one foot to the side and in front of the feet. These are intended for long-term usage.

**<u>Basic Principles</u>** – Bilateral crutch use is determined by the prescription and skill level of the patient.

- 1. Non Weight Bearing No weight allowed on the extremity.
- 2. Partial Weight Bearing 10 pounds maximum allowed on the extremity.
- 3. Weight to Tolerance Weight bearing to the point of discomfort. If no pain, patient may bear full weight.

# **Gait Patterns**

## **Four Point Gait**

- 1. Left crutch, right crutch, left foot, right foot.
- 2. Left crutch, right foot, right crutch, left foot.

- **Three Point Gait**1. Left crutch, right crutch, involved foot, uninvolved foot.
- 2. Right and left crutches, involved foot, uninvolved foot.

### **Two Point Alternating Gait**

1. Right crutch and left foot simultaneously, then left crutch and right foot simultaneously.

## **Two Point Swing Through Gait**

1. Right and left crutch, then both feet simultaneously (or one if Non-Weight Bearing).