

CRUTCH TRAINING BASICS - STAFF

OBJECTIVES:

- Why crutches are necessary:
 - Mild balance problems
 - Lower extremity involvement
- There are two (2) types of crutches:
 - Axillary type
 - Forearm (Lofstrand) type
- Crutches must be properly fitted:
 - Length of crutch is important and should be:
 - Two (2) fingerwidths below armpit.
 - When lying down, distance from armpit to heel plus two inches (2").
 - Position of handgrip should be:
 - 25 - 30 degree angle at elbow.
- Walking patterns:
 - Two-point pattern:
 - Left crutch/right foot move together, followed by right crutch/left foot moved together
 - Used for support of both legs
 - Simulates natural arm and leg motion during walking
 - Good for balance problems
 - May maintain weight bearing as tolerated or full-weight bearing status

CRUTCH TRAINING BASICS - STAFF (continued)

- Three-point pattern:
 - Crutches are moved with the affected leg, and then the uninvolved leg is advanced forward by itself
 - May maintain non-weight bearing or partial weight bearing status
- Four-point pattern:
 - Right crutch/left leg then left crutch/right leg, not done simultaneously as with two-point pattern
 - May maintain weight bearing as tolerated or full-weight bearing status
- Swing-to pattern:
 - Crutches are placed forward and the body weight is lifted by the hands, and swings forward, and the feet are placed in line with the crutches
 - Indicated for patients with trunk instability and who are unable to alternately move their lower limbs, such as a paraplegic
 - May maintain weight bearing as tolerated or full-weight bearing status
- Swing-through pattern:
 - Similar to swing-to except that feet are placed ahead of the crutches

Note: Swing-to and swing-through patterns require that the patient momentarily lose and regain balance, so must be guarded carefully.

- Standing and sitting safely:
 - Chair should be well supported
 - Crutches out from under arms when sitting and standing
 - Hands on arm of chair or seat of chair for support
 - Rest extremity on floor for increased stability

CRUTCH TRAINING BASICS - STAFF (continued)

- Learning to master stairs and curbs:
 - May use rail and hold crutch on opposite side
 - Step up with the good foot, then raise crutches and involved leg (up with the good)
 - Step down with the crutches and the bad leg and then come down onto the good leg (down with the bad)
- Putting weight on leg or foot:
 - Full weight bearing:
 - Allowed to put full body weight on the affected side
 - Partial weight bearing:
 - Allowed to put up to approximately 50% of body weight on the affected side
 - Toe-touch weight bearing:
 - Allowed to put toe down onto floor when walking in order to provide stability during gait
 - Allowed only to put the smallest amount of weight on the affected side (about 10%)
 - Non-weight bearing:
 - No weight on the affected side
 - Hold affected side in front of, or in back of the body

REFERENCE:

O'Sullivan, Susan B., Siegelman, Raymond P., *National Physical Therapy Examination Review and Study Guide*, International Educational Resources, 2010, p.234