

MUSCULAR DYSTROPHY



DEFINITION:

Muscular Dystrophy: A disease of the muscular system characterized by weakness and atrophy of the muscles of the body. The disease is progressive and remission does not occur. The rate of progression is different for each set of muscles.

TYPES OF MUSCULAR DYSTROPHY:

Duchenne: Occurs primarily in males and presents itself between the ages of 3 and 7 years. This type of muscular dystrophy is most common and most severe. This type affects the pelvic girdle and then moves to the shoulder girdle.

Facioscapularhumeral: The most common form of muscular dystrophy in adults. This type affects both genders equally. Appears in adolescence but is not usually diagnosed until adulthood. Characterized by progressive weakness of the shoulder muscles and weakness of the face muscles. Life span for individuals with this type is normal.

Limb-Girdle: Occurs anytime from age 10 and on. Both genders are equally affected. Early symptoms include difficulty in raising the arms above shoulder level or difficulty in climbing stairs. Initially muscle weakness is either in the shoulder girdle muscles or the hip and thigh muscles.

CHARACTERISTICS OF MUSCULAR DYSTROPHY:

- Tendency to tire quickly
- Postural changes due to progressive muscle weakness
- Waddling gait with legs far apart
- Walking on tip toes
- Gower's sign (moving to all fours and then "climbing up the legs" when changing from a prone to standing)
- Tendency to lose fine manual dexterity
- Pseudohypertrophy particularly in the calf muscles
- Lack of motivation because of limitations

EIGHT STAGES OF DUCHENNE MUSCULAR DYSTROPHY:

- Ambulates with mild waddling gait and lordosis. Climbs stairs and curbs without assistance.
- Ambulates with moderate waddling gait and lordosis. Needs support to climb stairs and curbs.
- Ambulates with moderately severe waddling gait and lordosis. Cannot climb stairs or curbs.
- Ambulates with severe waddling gait and lordosis. Unable to rise from a standard height chair.
- Wheelchair independence. Sits erect and can roll chair and perform all activities of daily living (ADL) and wheelchair activities without assistance.
- Wheelchair with dependence. Needs assistance when performing ADL and wheelchair activities.
- Wheelchair with dependence. Sits erect only with support. Able to do minimal ADL.
- Bed patient. Needs maximum assistance for ADL.

TEACHING TIPS:

- Individually designed activity program.
- Allow for full participation in games and athletics while condition is in early stages.
- Be aware that the individual may tire more easily.
- Introduce sedentary recreational activities that will carry over when the student is in a wheelchair.
- Allow the student to be in an aquatic environment as much as possible.
- Design stretching and strengthening programs for the student to maintain functional skills.
- Encourage movement and dance activities that allow the individual to express emotions.
- Due to progressive muscle weakness, respiratory and cardiac problems become evident.
- Encourage breathing games and exercises when the student is confined to the wheelchair.

Information on this sheet contains only suggested guidelines. Each student must be considered individually, and in many cases, a physician's written consent should be obtained.