



Classification

IMPAIRMENT TYPES

HYPERTONIA

- ▶ CAUSED BY CENTRAL NERVOUS SYSTEM IMPAIRMENT.
- ▶ INCREASED MUSCLE TONE
- ▶ RESULT IN INCREASED RESISTANCE TO PASSIVE LENGTHING OF THE MUSCLE .

TYPES OF HYPERTONIA

1. **SPASTIC HYPERTONIA:** Clasp knife resistance, initially high followed by sudden relaxation.
2. **RIGIDITY:** Lead pipe resistance, usually has a predominant pattern with a flexor pattern being more common.
3. **DYSTONIA:** Resistance to passive movement , limb may move more regularly from an extreme flexion pattern to an extreme extension pattern.

ATAXIA

- ▶ UNSTEADINESS OR CLUMSINESS OF VOLITIONAL MOVEMENT.
- ▶ MOTOR ATAXIA COMPENSATED BY VISUAL INPUT.
- ▶ SENSORY ATAXIAS MOST FREQUENTLY RESULT FROM LOWER MOTOR , NEURON DAMAGE OR SPINAL CORD DISEASE.

ATHETOSIS

- ▶ Unwanted movement.
- ▶ From damage to motor control centre of the brain.

TYPES OF ATHETOSIS

1. Dyskinesia : Abnormal postures, movement associated with impaired muscle tone.
2. Dystonia: Sustained involuntary muscle contraction causing abnormal postures.
3. Choreoathetosis: Hyperkinetic involuntary movements that are jerky, constantly changing.

TESTS TO IDENTIFY IMPAIRMENTS

HYPERTONIA

1. Hip Adductor
2. Knee Flexors (Straight)
3. Knee Extensors (backward lying)
4. Planter Flexors

ATAXIA

1. Sitting without support
2. Standing in natural position (Heel touching, feet together, tandem)
3. Gait- Walk Straight normally then turn back and tandem walk back to the starting point.
4. Heel Shin Slide- heel to another knee
5. Nose Finger test- Touching nose with index finger and touching the pointed finger of the classifier.(5 times)

ATHETOSIS

1. Standing upright for 15 sec.
2. Sitting at rest in unsupported position on a chair with backrest.
3. Shoulder flexion in front (5 times)
4. Alternate heel/toe tapping in sitting for 5 times (per tap per second)
5. Alternate toe tapping of a target (on wall) in supine lying.

CLASSIFICATION

T31

- ▶ Propelling the wheelchair with their feet.
- ▶ Spasticity grade 4 to 3 with or without athetosis.
- ▶ Quadraplegic and have great difficulty in all four limbs.

F31

- ▶ 1. Poor functional range of movement
- ▶ Poor functional strength in all extremities and trunk.
- ▶ Dependent on power wheelchair or assistance for mobility.

CLASSIFICATION

T32

- ▶ Severe to moderate involvement
- ▶ Spasticity grade 4 to 3 with or without athetosis.
- ▶ Better hand function and trunk balance.
- ▶ Able to walk short distance but never able to run.

F32

- ▶ Poor functional strength.
- ▶ Functionally propel a wheelchair with arms.

CLASSIFICATION

T33

- ▶ Severe hemiplegic – moderate (Asymmetric or Symmetric)
- ▶ Can propel a wheelchair independently.
- ▶ Need assistance

F33

- ▶ Wheelchaired with almost full functional strength.
- ▶ Least impaired upper extremity
- ▶ Can propel a wheelchair independently.

CLASSIFICATION

T34

- ▶ Diplegic – moderate to severe involvement
- ▶ Good functional strength with minimal limitation or control problems noted in upper limb and trunk.

F34

- ▶ Good functional strength with minimal limitation or control problems noted in upper limb and trunk.

CLASSIFICATION

T35

- ▶ Impairment of lower limbs
- ▶ Mild impairment in arms
- ▶ Impairments of both legs and one arm

F35

- ▶ May require use of assistive device while walking but not necessarily in standing
- ▶ Triplegic
- ▶ Good strength with normal limits.

CLASSIFICATION

T36

- ▶ Athletes with athetosis, ataxia, dystonia type impairment affecting all four limbs and the trunk.
- ▶ This class athletes have more control problem in upper limbs than class T35 athletes.
- ▶ Usually has better functions in lower limbs particularly when running.

F36

- ▶ Athetoid or Ataxia – moderate involvement
- ▶ Ambulates without assistive devices.
- ▶ All four limbs function normally.
- ▶ Better functions in lower limbs while running.

CLASSIFICATION

T37

- ▶ True ambulant hemiplegic athlete
- ▶ Have spasticity grade 3 or 2 or moderate dystonia, athetosis or ataxia in one half of the body.
- ▶ Good functional ability.

F37

- ▶ Hemiplegic athlete
- ▶ Walk without assistive devices
- ▶ Good function ability in less impaired side of the body.

CLASSIFICATION

T38

- ▶ Minimally affected diplegic, hemiplegic, monoplegic.
- ▶ Mild hypertonia
- ▶ Mild active limitations

F38

- ▶ Mild hypertonia, ataxia, and athetosis

THANKYOU

