

CLASSIFICATION SYSTEM

T51

- These athletes will usually have elbow flexion and wrist dorsiflexion muscle power to grade 5, a decrease of shoulder muscle power especially pectoralis major, and triceps muscle power from grade 0-3. Usually have no muscle power in the trunk.

Use elbow flexors and wrist dorsiflexors for propulsion. Sit in an upright position with knees under the chin. Usually have small push rims. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level C5-6.

T33/52

T33

- Quadriplegic, triplegic, severe hemiplegic – Moderate (asymmetric or symmetric) quadriplegic or severe hemiplegic in a wheelchair with almost full functional strength in least impaired upper extremity. It is rare for an athlete with athetosis to be included within this class unless he/she presents with a predominantly hemiplegic or triplegic profile with almost full function in the least impaired upper limb. Can propel a wheelchair independently.
- Upper extremities - Moderate limitation spasticity Grade 2 in least impaired arm shown as limitation in extension and follow through. Least impaired hand may demonstrate cylindrical and spherical grasp.
- Trunk control –When pushing chair but forward trunk movement is often limited by extensor tone during forceful pushing. Spasticity Grade 2.
- Lower extremities - Spasticity Grade 4 to 3, some demonstrable function can be observed during transfer. May be able to ambulate with assistance or assistive devices but only for short distances.
- In order to differentiate between Class T33 and T34, trunk mobility in propulsion of the chair, and hand function are important. If an athlete demonstrates a very poor ability to use rapid trunk movements in the pushing motion, or significant asymmetry in the arm action or grasp and release which impedes the development of forward momentum, s/he is a Class T33. An athlete using only one arm for wheelchair propulsion may have long strokes and rapid grasp and release in the least impaired arm and still be Class T33.

T52

- These athletes will usually have normal shoulder, elbow and wrist muscle power, poor to normal muscle power of the finger flexors and extensors with there being wasting of the intrinsic muscles of the hands.

Use shoulders, elbows and wrists for propulsion. Usually have no muscle power in the trunk. May use gloving techniques similar to the next two classes. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level C7-8.

T34/53/54

T34

- Diplegic – Moderate to Severe involvement. Good functional strength with minimal limitation or control problems noted in upper limbs and trunk.
- Upper extremities – the upper limbs often show normal functional strength. Minimal limitation of range of movement may be present but close to normal follow through and propulsion is observed when throwing or wheeling. With hand function, normal cylindrical/spherical opposition and prehensile grasp is seen in all sports. Limitation if any is usually apparent only during rapid fine motor tasks. It should be remembered that diplegia implies that there is more spasticity in the lower than the upper extremities. Some involvement spasticity Grade 2 to 1 can be seen particularly in functional movements of the hands, arms and trunk.
- Trunk – Spasticity Grade 2 to 1. Minimal limitation of trunk movements when propelling a wheelchair. In some athletes fatigue can increase spasticity which can be overcome with proper positioning. When standing, poor balance is obvious even using assistive devices.
- Lower Extremities-Moderate to severe involvement in both legs Spasticity Grade 4 to 3 usually rendering them non-functional for ambulation over long distances without the use of assistive devices. When propelling the chair the athlete is able to perform long and forceful strokes, with rapid grasp and release, although fine movements of the hands may be affected. During propulsion these fine movements are not essential. Strong trunk movements in forward and backward direction support the arm strokes. If these movements do not occur the trunk is well balanced and forms a stable base for the arm movements. When the wheelchair makes a curve, the trunk follows the wheelchair without disturbance of balance.

T53

- These athletes will have normal arm muscle power with no abdominal or lower spinal muscle activity.

Use different techniques to compensate for lack of abdominal musculature including lying horizontal. In general when acceleration occurs, the trunk rises off the legs due to a lack of abdominal muscles to hold the trunk down; there is no active downward movement of the trunk to assist with propulsion.

Usually have to interrupt the pushing cycle to adjust the compensator. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level T1-7.

T54

- These athletes will have normal arm muscle power with a range of trunk muscle power extending from partial trunk control to normal trunk control. Athletes who compete in this group may have significant leg muscle power.

These athletes have reasonable to normal trunk control which allows them to hold their trunk down when the propulsion force is applied to the push rim. Usually do not interrupt the pushing cycle to adjust the compensator. Can shift direction of the wheelchair by sitting up and applying a trunk rotational force to the wheelchair. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level T8-S4.

Athletes competing in this class must meet one or more of the MDC presented in Section 2.1.4 (limb deficiency), 2.1.5 (impaired PROM) and 2.1.6 (impaired muscle power) or 2.1.7 (leg length difference).

** For further information, please refer to the following **WPA** website.

<http://www.paralympic.org/Athletics/Rulesandregulations/Classification>