



CPISTRA Ambulant Rugby 7- a-side Classification Profiles

(Suitable for GMFCS level 1 and 2)

Class CPR5

Spastic Diplegia / Asymmetric Spastic Diplegia / Dystonia

- Moderate involvement, spasticity grade 2-3;
- Involvement of both legs which may require orthotics/splints for walking;
- An asymmetric Diplegic athlete with involvement on both sides with lower limbs more affected than upper extremities;
- Athletes with dystonia where the lower limbs are more affected than upper extremities

Balance:

Athlete has normal static balance but exhibits problems in dynamic balance e.g. attempting to pivot or stop and start. Athlete has reduced range of movement in hips which can alter rapid movements in all directions.

Upper Extremities:

Presentation of upper limb impairment is variable within class CPR5. Minimal to moderate limitation in range of motion and/or coordination can be seen during sport movement, but functional strength is within normal limits.

CP Rugby Skills During sport:

Exertion will increase tone and decrease function. Athletes will have difficulty in turning, pivoting and stopping, usually running only short distances due to involvement in both lower limbs. Stride length is reduced and/or decreased with exertion. Foot extension may be limited affecting passing. Jumping at line outs could also be affected due to the impaired range of motion in the lower limbs. Balance may be affected when passing or throwing the ball. However, these athletes are likely to have good grasp and release of ball and should be able to catch the ball. These athletes are likely to have symmetrical arm strength which should allow them to tackle effectively, although balance could affect tackle ability. These athletes will have no difficulty in performing in an uncontested scrum.

Class CPR6

Athetosis / Dystonia / Ataxia / Mixed Cerebral Palsy or related neurological conditions

- Moderate involvement in all four limbs;

- The Athlete ambulates without assistive devices but might require orthotics/splints;
- Athetosis, dystonia or ataxia is typically the most prevalent presentation but mixed CP can present a combination of these along with spasticity;
- Athletes with athetoid CP with dystonia in all four limbs belong in this classification unless the impairment is minimal.

CPR6 Athletes have more coordination impairment in their upper limbs than CPR5 Athletes, although CPR6 Athletes usually have better function in their lower limbs particularly when running. Spasticity can occasionally be seen in CPR6 Athletes and should not be a reason for placement in Class CPR5.

Balance:

Athletes with ataxia will have a wide based stance and gait. Athletes who have athetosis or dystonia may have good dynamic balance compared with static balance. Athletes with dystonia, athetosis and ataxia, in particular, will have problems with balance and with starting, stopping, and turning when running. They will also have varying degrees of difficulty with balance while hopping and jumping; with many postural body adjustments for static/dynamic balance. The Athlete may have delayed saving/protective reactions when falling or losing balance.

Lower Extremities:

Function can vary considerably depending on the sports skill involved, from poor, laboured, slow walking to a running gait which shows better biomechanics (there can be a marked contrast between the athlete with athetosis or dystonia with uncoordinated gait when walking, and a smooth, even movement with coordinated running/cycling.) When running the Athlete may have "flight" (both feet off the ground at the same time).

Upper Extremities:

The Athlete with mixed CP may have problems with limitation of range of movement. Athletes who have athetosis or ataxia may have poor upper limb coordination and timing, delayed reactions with catching and throwing and increased involuntary movements on activity.

CP Rugby skills:

The Athlete will have trouble stopping and changing direction quickly with and without the ball. Coordination and timing problems will be seen when tackling and passing the ball. Explosive movements, hopping and vertical jumps are difficult to perform. Acceleration hesitation and increased impact of momentum on deceleration are typically noted, and difficulties in stop-start movements could be appreciated. Grasp and release can be significantly affected when passing the ball and contesting the lineout. These athletes will have no issue jumping at a line out. These athletes may have difficulty in catching the ball when receiving a pass. These athletes will have no difficulty in performing in an uncontested scrum.

Class CPR7

Spastic Hemiplegia / Hemiplegia from an acquired brain injury

- Spasticity Grade 2- 3 in one half of the body (i.e. one arm and one leg);
- Walk/run with a limp/clearly noticeable due to spasticity in the lower limb;

- Hemi gait pattern 1, 2, 3 or 4 as per grouping described in 'Gait patterns in spastic hemiplegia in children and young adults ' by Winters TF Jr, Gage JR, Hicks R., (J Bone Joint Surg Am. 1987 Mar;69(3):437-41)(See Section 10 and 11);
- Non-impaired functional ability in the other side of the body

Lower Extremities:

Hemiplegia Spasticity Grade 2 - 3. Non affected side has better development and good follow through movement in walking and running. The Athlete has activity limitations in walking and running both in stance and swing phase on the impaired side. Balance is also affected and causes significant difficulty with hopping, balancing and side stepping on the impaired side. Foot placement is affected by weakness in dorsiflexion muscles and/or over-activity in plantar flexor muscles. Knee and hip control may also be affected by spasticity (Type 3 and 4 hemiplegia) and possible loss of range of motion due to static or dynamic contracture.

The Athlete demonstrates a limitation in knee pick up in sprinting and also has an asymmetrical stride/step length. Step length is decreased on the impaired side in relation to the unaffected side. Running may appear to be nearly symmetrical. Stride length is affected due to varying factors including reduced strength on impaired leg and effect of spasticity in the muscles at the ankle, knee and hip joint of affected side

In some Athletes with hemiplegia caused by an acquired brain injury, the dominant side may have become the impaired side. Therefore the Athlete may kick the ball with the dominant side. If the Athlete is unable to balance or has insufficient support on the impaired side, they may choose to stand on the less affected side and kick with the impaired leg.

Upper Extremities:

Function is limited on the affected side. There is good functional control on the unaffected side. The affected arm and shoulder will have increased hypertonia and spasticity and decreased range of motion.

CP Rugby skills:

The Athlete who walks with a noticeable limp may appear to have a smoother stride when running but may not have a consistent heel strike. The Athlete has difficulty pivoting and balancing on the impaired side and therefore pivots on the unaffected side and may kick with the affected foot. The Athlete's affected arm muscles will have an increase in tone when running and may appear bent when walking. Due to the level of tone in their affected side the athlete may have difficulty in passing and catching the ball with both hands and may do this one handed. The lack of symmetry in this athlete will affect their ability to tackle and lock in the scrum. There will be an impact in the performance of vertical jumps due to the lack of contribution of one side in contraction (flexion-extension). This will affect the athlete's performance in line outs

Training does not change these patterns it only changes the quality of movement of functional ability. However, the Athlete experiences a visible restriction caused by spasticity during fast movement and an increase in tone with exertion.

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