Biomechanics In Paralympic Sports

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In Paralympics sports, the disabled athletes faces high amount of challenge and risks in terms of injury. The chances and frequency of injuries in disabled athletes are higher as compared to able bodied athletes. In fact, the disabled athletes with lack of impulse from one of the extremities or by birth disabled or amputees have a greater risk of injury. The individuals who by birth are disabled have lesser chance of injury as compared to disabled athletes who have been an amputee due to earlier phase of structural adaptation. The disabled athletes who participate in cyclic activities are more likely to get injured as compared acyclic activities. Disabled athletes in cyclic activities often faces the challenges in terms of bilateral strength issues, lack of synchronized movements, neuromuscular coordination, and as a result produces uneven force distribution, unnecessary shoulder, trunk and pelvic rotation and when fatigued, they are likely to compensate the force production with involvement of unwarranted muscle groups that leads to injury. Less information and understanding the complexity, constraints and demands placed on the body with individuals with disability, and the knowledge on classification of disability athletes makes the biomechanics analysis more challenging among Paralympic athletes.

In this presentation, couple of injury mechanics of disabled athletes is discussed and what has been done in order to rectify the issues. While diagnosing disabled athletes with injury in synchronized cyclic activities, it is always advisable to do a physical and biomechanical analysis of the team to understand the intricacies and mechanics of injury.