

Bull Riding

Unique aspects of injury to the pelvic-femoral region.

By Jeffrey R. Dee, MSPT

The nature of bull riding and rodeo presents unique challenges to physical therapists and other health care providers in preventive care, acute injury management, and rehabilitation after injury. I have been involved with Extreme Sports Medicine (ESM) for slightly more than three years as a physical therapist. This team of healthcare providers started with chiropractors and emergency medical technicians (EMTs) volunteering their time to provide onsite coverage of events using chiropractic manipulations pre and post contest and EMTs for assistance with medical emergencies. Dr Scott Roker, DC, approached me to join the team to begin to expand the scope of ESM's coverage. Although I had never seen a rodeo event or knew anything about it, I was excited to become part of a progressive team approach to caring for these unique athletes.

The sport of rodeo presents unique mechanisms of injury and the lifestyles live by the participant's present challenges. Bull riding is one of the most likely of rodeo sports to lead to injury. The pelvic-femoral complex is subject to a variety of concentric, eccentric, and isometric demands. Most bull riders have no formal instructions in appropriate stretching or strengthening routines vital to maintaining musculoskeletal balance and symmetry. The demands for both power and flexibility are unique to the sport. Various injuries can include adductor strains or rupture, pubic symphysis shifts, or pelvic/ SI dysfunction. The repeated forceful attempts of the bull to throw the rider will result in awkward combinations of trunk flexion and rotation with lower extremity extension, flexion, adduction or a combination thereof with no way of anticipating the next move of the bull. These riders can suffer acute strains or injuries that develop into chronic injury if not appropriately addressed.

As part of a team approach with ESM, the chiropractic manipulations in conjunction with correct stretching and muscle mobilization can provide riders with good relief on-site and then the importance of post event stretching and strengthening continues. I emphasize the importance of flexibility of the pelvic-femoral musculature first and foremost. Most riders have been doing it long enough that their strength is less of an issue, in my opinion, but always needs to be assessed. Traditional muscle testing can reveal weaknesses that must be balanced between the abdominals, adductors, and gluteals. Just as important is the upper body strength, particularly of the glenohumeral stabilizers. The flexibility I am looking for in riders is the ability to symmetrically rotate the torso and symmetry in hip rotation regarding internal to external rotation and hip flexion to extension. They are given appropriate stretches to address any imbalance and then encouraged to reinforce these stretches regularly.

As mentioned earlier, perhaps one of the greatest challenges to a physical therapist is compliance of the riders. These are usually individuals with families and full time jobs that hinder their ability to prepare ideally for contests. They practice their skills thoroughly but tend to neglect nagging injuries or acute injuries in order to participate.

Many of them will ride injured and that is part of the sport, but as a physical therapist, I am compelled to promote appropriate rest and recovery time in order to avoid chronic injury that may lead to ending a career in riding too soon. Striking a balance between getting the rider back on the bull and doing what is in their body's best interest is a challenge.

As with any contact sport, there will be injuries and those injuries have to be addressed in the acute stage. Pelvic dysfunctions of the SIJ or pubic symphysis respond well to the chiropractic manipulation in the acute stage followed by appropriate stretching and stabilization exercises that physical therapists provide. Iliac up-slips can often be seen as the result of the unequal weight bearing of the ischial tuberosities at impact. Quick assessment and intervention is needed with these particular injuries to prevent muscle guarding/ spasm that can lead to additional injuries including adductor or lumbar strains. Pubic symphysis injuries can occur both while on the bull and when thrown then landing unbalanced with shearing forces through the pelvic ring. Soft tissue injuries are addressed by means of keeping the muscle from guarding whether it is through taping for external support until the event is finished or using contract/ relax method of gentle stretching and neuromuscular facilitation. These frequently occur while in the chute when the bull pins a rider's leg or UE. Ice is always an important component of managing acute and chronic injuries to riders as well.

Keep in mind, for the riders, the goal of PT at the event is to get them back on the bull as soon as possible. Rehabilitation with physical therapy is an area that most riders do not have ready access to in the sport. Through ESM, I hope to change this and begin to provide services that are beneficial for the riders both at the events and after. Appropriate rehabilitation can only lead to quicker recovery, better performance and longevity. I look forward to additional articles involving rodeo injuries involving the shoulder, the neck and acute trauma of the thorax.