

Neck Strengthening For Hockey

Since hockey is a fast game with frequent changes of direction and collisions, injuries to the head and accompanying neck strains will sometimes unfortunately happen. When I mention head injuries, I am referring to a hit to the head by an opposing player or when a player's head may hit the ice or the glass as a result of a hit from an opposing player. I know that this may be referred to as a concussion. However, with the uncertainty of what a concussion may or may not be, I will leave the definition and diagnosis to the doctors and medical professionals. Concussion or not, an injury to the head and/or neck is a serious matter.

Recently there have been a high number of pro players who are out of the lineup or have yet to play his season because of post head injury related symptoms. There is currently a head injury epidemic in hockey and also in football. As a result, rules are being implemented and equipment is being modified to help combat the problem.

In my own experience with seeing these episodes, it was usually a player who was in a vulnerable position when contact was made by an opposing player. When the player was hit, it might have been a shoulder or an elbow to the head. In all of the cases, I don't believe that there was anything that could have been done to prevent them from happening.

Each situation that I have seen varied in its severity and recovery time. Some players came back to the lineup quicker than others while others may have taken longer. I have also unfortunately had to see a player have to retire from the game because his symptoms weren't improving. Each case and the recovery process ran its course differently with each individual.

The most difficult time for the athlete who is recovering from these injuries is the time that it takes to become symptom free. Symptoms may include dizziness, sensitivity to light, nausea, headaches, depression, and/or an overall bad feeling. These can last for weeks and/or months at a time. During this recovery time, the athlete cannot participate in anything that increases heart rate or perceived exertion. It is a "wait and see" time. Team doctors and athletic training staffs have strict protocols in place that may clear or not clear an individual for activity while in the recovery process.

One of the most difficult situations as a Strength and Conditioning Coach is working with a player who gets cleared to resume training again after an episode like this occurs. The player wants to hit the ground running (or the ice skating) and get back in the lineup as soon as possible. It is important for the athlete and the strength and conditioning coach to be patient during this process. The longer that the player has been out of the lineup, the more patient you have to be as it may take longer.

From a physical standpoint, one of the first things to happen while the athlete is inactive in the recovery process is the loss of lean body mass. Adding lean body mass onto an athlete (especially one who has had the weight on before) can be done easily with a sound strength training program and adherence to proper nutrition. Where it is more difficult is when they may be cleared to resume activity during the competitive season. It can be very hard to add lean

body mass to a player while in-season. The volume of skating in practices combined with the strength and conditioning work can be a difficult obstacle to overcome.

The whiplash associated with a head injury will almost certainly cause trauma to the neck muscles. There are several muscles that can be affected including the trapezius and several other supporting muscles that help support the weight of the head. To help with this, we will enlist our massage therapist to help those muscles relax and release the spasms. This is one of the most important aspects of the recovery process.

One thing that I have learned is that proper neck strength can help lessen the severity of the whiplash effect from any hit involving the head. Although we don't have any neck machines in our training facility, I think we are doing neck injury prevention training almost on a daily basis. We will accomplish this through the Olympic lift variations that we do such as the hang clean, hang snatch, and dumbbell snatch. In my opinion, if we are Olympic lifting, we will help prevent the effects of a head injury by trying to limit the whiplash effect by getting our neck extensors and stabilizers stronger. If you ask any athlete a day or two after doing Olympic lifts to point out where they are sore, more than likely they will have some sore traps and upper back region.

What do we do with players who don't Olympic lift? With these players, we will have them perform dumbbell shrugs, manual resisted isolated neck exercises and/or isometric neck bridges. (We will also perform these exercises in addition to Olympic lifting for some individuals.) Here are some videos of those exercises:

Manual Neck Extension- We will stick to doing manual neck extension only. We will not do any flexion or rotation. We are very cautious as we don't want to provide too much resistance while the athlete is performing the movement. We will provide 10% of max resistance only and instruct the athlete to perform extension in a smooth, fluid like fashion.

Neck Bridge on Stability Ball- This has to be done with a partner who is spotting. We will simply put a stability ball between a wall and the back of the players' head. We will start with a 15 second hold and progress accordingly. We will not progress this to a wrestler type bridge on the floor or with the stability ball on the floor.

While I certainly can't say that we can prevent head injuries in hockey, we certainly can help prepare our athletes with the ability to have a strong neck to help lessen the severity of the whiplash effect. Collisions on the ice or on the field (football) are similar to car accidents. As a strength and conditioning coach, it is our responsibility to help prevent injuries in the safest manner. Strengthening the neck is a priority for us.