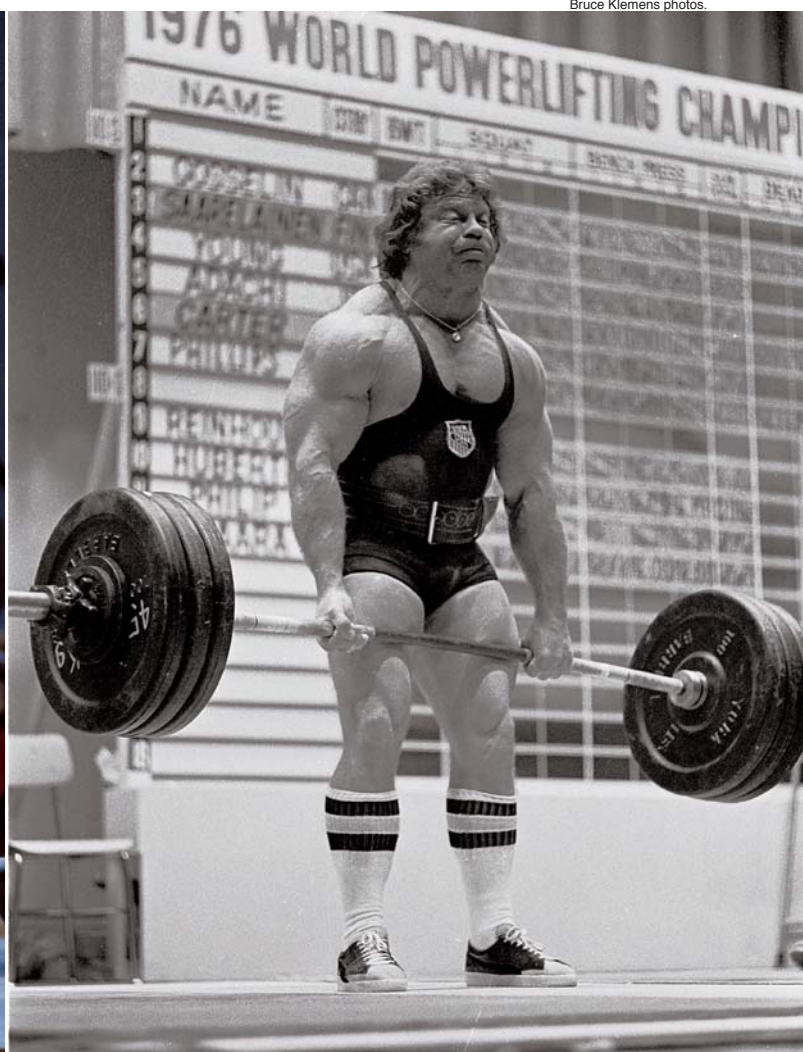




Weightlifting and powerlifting are sports that develop the muscles of the neck and trapezius. Shown are Olympic champion David Rigert from Russia and powerlifting world champion Marv Phillips.

Neck Training: The BFS Approach

Why training these muscles is more important than ever

BY **KIM GOSS, MS**

The movie poster for *Pain & Gain*, a 2013 film starring Mark Wahlberg and Dwayne “The Rock” Johnson, features a close-up of a professional bodybuilder’s bulging biceps. In Hollywood action films, strong muscles are associated with big

arms. However, in sports, especially football and weightlifting, the look of power is often a thick neck.

Powerful neck and trapezius muscles are the result of heavy free-weight training on core lifts such as deadlifts, power cleans and shoulder

shrugs. Other than playing sports that develop these muscles intrinsically, such as boxing and wrestling, the only way to develop these muscles is to train them specifically.

Athletes need a strong neck, because injuries to the neck can be

among the most catastrophic for an athlete. Emphasis on proper sport biomechanics and safety equipment has made such injuries extremely rare among football players, but coaches still need to take every precaution to reduce the risk of neck injuries among their athletes. And as with any muscle group, strong neck muscles generally will recover faster from minor injuries than neck muscles that have been neglected.

Another important consideration



A strong neck is important in many sports, especially wrestling. Shown is Alonzo Shepherd of Jeffersonville High School. You can read about this great wrestling program in our January/February 2012 issue, available in the archives section of our website.

is concussions. Athletes with superior neck strength are less likely to suffer

concussions. This was shown in a research study of 6,704 male and female



These two athletes, trained by the author, dramatically improved their posture within a few months by performing specific exercises for the neck and upper back muscles.

athletes in soccer, lacrosse and basketball. Dawn Comstock, associate professor of epidemiology at the Colorado School of Public Health, presented her findings related to neck development and concussions at the fourth annual Youth Sports Safety Summit in February 2013.

“Your neck acts like a shock absorber,” said Comstock in the April 2013 online edition of *Athletic Business*. “As the head rocks back and forth, it’s also twisting a little bit on the brain stem, and it’s those accelerative and rotational forces as the brain is impacting inside the skull that are really what’s causing these concussions. A stronger neck means you’re reducing those accelerative and rotational forces.”

The highest risk of concussions from sports occurs in American football. Further, in high school sports played by both sexes, research published in the *Journal of Athletic Training* suggests that high school girls are at a higher risk of suffering from this type of brain injury than high school boys are. For example, female soccer athletes had nearly 40 percent more concussions than their male counterparts, and the risk to female basketball players was 240 percent higher than the risk to boys.

Total Neck Training

Neck bridging is popular with wrestlers for strengthening the neck, but these exercises may be too advanced for some beginners – and an athlete needs expert instruction to avoid injury. Also, after a time these exercises can become too easy because they are usually performed only with bodyweight, thereby limiting their usefulness. Manual resistance can also be effective, but this is unadvisable unless supervised by a knowledgeable instructor.

The neck has four major functions: flexion, extension, lateral flexion, and

rotation. Here is an explanation of each function, the muscles involved and how they are trained. The first three exercises are performed on a neck machine, such as the BFS 4-Way Neck Developer.

Flexion: the ability to tilt your head down, moving your chin to your sternum. The primary muscles involved in this action are the longus colli, longus capitis, and infrahyoids. On the neck machine you would rest your forehead in the middle of the head pad and flex your neck. Because the range of motion is relatively short and it’s easy to strain the neck with isolation exercises, you should perform this exercise and the other three exercises slowly, pausing in both the stretched and contracted positions.



A great machine to isolate three primary functions of the neck is the BFS 4-Way Neck Developer.

Extension (a.k.a. hyperextension): the ability to lift your chin away from your sternum, such as when you look up. The primary muscles are the splenius capitis, semispinalis capitis, suboccipitals and trapezius. To train them, you would rest the back of your head on the head pad and tilt your head backward as far as comfortable.

Lateral flexion: the ability to tilt your head to the side, such as when you touch your ears to your shoulders. The primary muscle group involved in this

action is the scalenes. To develop them you would sit sideways on the machine, with the side of your head on the head pad, and flex your neck, moving your ear closer to your shoulder. Work both sides of the neck.

Rotation: the ability to move your head from side to side, such as when you look over your shoulder. The primary muscles are the splenius capitis, sternocleidomastoids, levator scapulae, and suboccipitals. There are few exercise machines that work this action, and the best one is a medical unit that costs about \$75,000. As such, the most practical way to perform rotation is with manual resistance. It would take a skilled training partner to safely administer this method, so it’s best to perform it by yourself. First, though, because it is very easy to strain your neck in this movement, you should have a physical therapist (or similar health care professional) show you how to do it safely. An experienced wrestling coach may also help you.

In addition to training the neck, it’s also important to train the trapezius muscles that support the neck. Olympic lifting exercises, as well as deadlifts and shoulder shrugs, will work the trapezius, a triangle-shaped back muscle that starts in the middle of the back and fans out to the top of the shoulder. Shoulder shrugs are excellent for isolating this muscle action – as are the movements used in the pulling phases of the snatch and clean. As a result, many Olympic lifters have tremendous trapezius development.

Okay, so it’s unlikely you’ll require monstrous neck muscles unless you’re auditioning for the lead role in an *Incredible Hulk* movie. However, if your goal is athletic performance and you want to have the look of strength, it’s well worth your while to devote some training time to developing your neck. **BFS**