

"Pencil neck geek, grit eatin' freak, scum suckin', pea head with a lousy physique. He's a one man, no gut, losing streak. Nothin' but a pencil neck geek."

t was 1977 when *Pencil Neck Geek* hit the airwaves. Written by the late pro wrestler Freddie Blassie, it was a novelty song about how "real men" behaved and looked. And you can bet Mr. Blassie wasn't talking about football players when he wrote those lyrics, because football players all have collar-busting necks and bulging traps. At least they're supposed to.

In the '70s and '80s, football coaches and those who handled the strength training of football players emphasized neck training. Neck machines were commonplace in weightrooms, and often football coaches would even have their players finish their practices with manual resistance exercises. Neck training was a big deal. But now, with all the emphasis on core Photo by Jed Jacobson/Getty Images

training and the latest engineered supplement, somehow neck training has been neglected. This is not a good thing.

Injuries to the neck can be among the most catastrophic for an athletic. Emphasis on proper sport biomechanics and safety equipment has made such injuries extremely rare among football players, but there is no reason why a coach would not want 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 those in athletes who have ignored training this area.

Total Neck Training

Manual resistance neck training involves pressing the head against the hands, usually the hands of a training partner, but this method has its drawbacks. In fact, the late sports scientist Dr. Mel Siff considered such training pretty much a waste of time. "While Olympic lifting exercises strongly affect the trapezius, a wing-shaped muscle on the upper back. Shown here with brutally huge "traps" is Anatoly Pisarenko, a Russian weightlifter who officially clean and jerked 584 pounds and claims to have cleaned 617 pounds!

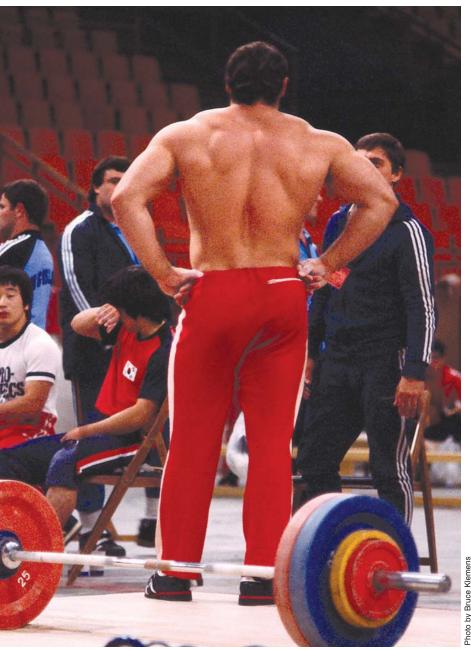
isometric exercise certainly can strengthen muscles, the degree of resistance has to be progressively increased in order to increase strength to the degree which is demanded by rugby and football," says Siff in his book *Facts and Facilities of Fitness.* "Moreover, it is very difficult to remain motivated during repetitively monotonous isometric activities."

In addition to the reasons Siff has given, there is another reason to avoid most manual resistance exercises for the neck – look who is applying the resistance. For practical reasons, few coaches will be the ones performing manual resistance; instead, it will most likely be a training partner who may not

have the skill and emotional maturity to perform this activity.

Dr. Marc Rabinoff is a professor and chair of the Department of Human Performance, Sport and Studies at Metropolitan State College of Denver, Colorado. He has been an expert witness in more than 200 lawsuits involving coaches, physical education professionals, equipment manufacturers and schools. According to Dr. Rabinoff, if a training partner injures an athlete by performing manual resistance incorrectly, the coach and the school are most likely the ones liable, not the training partner.

Further, this situation begs the question "Where does a coach learn how to properly perform manual resistance?" Such training is not taught in the major



strength coaching certification courses, and Rabinoff says from a liability standpoint it would be unwise to use such a hands-on technique from reading a book

or article about the subject. Neck bridging is popular with wrestlers for strengthening the neck, but these exercises may be too advanced for some beginners – and you need 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.

Neck Anatomy Made Simple

Take a look at an anatomy chart and you will see that the neck is home to many muscles, (most of

which are difficult to pronounce, let alone spell). The important thing is to know the major functions of the neck muscles, of which there are four: flexion, extension, lateral flexion, and rotation.

For a total neck training program, each function needs to be addressed. Fortunately, the exercises described in the remainder of this article are relatively simple to perform and can be completed in just a few minutes a day, twice a week.

Training the Neck

The primary piece of equipment BFS recommends for neck training is a BFS 4-Way Neck Developer along with these optional pieces: a Hex bar and lifting chains. Although weight plates can be used on the BFS machine to increase resistance and there is a shaft on the machine for this purpose, we like using lifting chains.

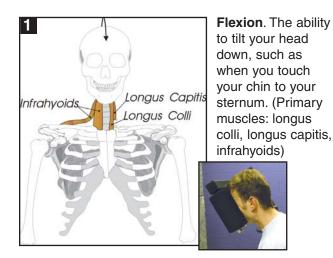
Many neck muscles have an "acceleration strength curve," meaning that they can exert greater force when the muscles are fully contracted. A lifting chain accommodates to this increased strength level and improved leverage because as the chain lifts off the floor, the resistance is increased. If an athlete becomes so strong that it is possible to perform the exercise with two of the heaviest chains attached to the weight peg, chain extenders can be added near the end of the chains. However, when you first perform the exercise, start with a 2 ½-pound plate and progressively increase until you can handle the weight of our lightest chain.

Finally, the neck is one area for which we don't recommend going to absolute failure on any set – you should always have about two more reps in you when you finish the exercise (and use higher reps). We say this because we've found that, compared to other muscle groups, it's easy to strain the neck muscles; and because going to failure on neck machines may mean a breakdown of form, which can lead to injuries. Progress will come; just be patient.

With those precautions, here are the exercises, arranged by the four functions of the neck.

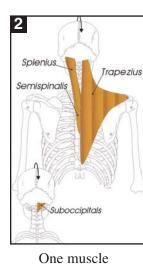
Training Flexion #1

Sit down on the neck machine and face the lever arm. Rest your forehead on the pad and pull your chin towards the sternum as far as possible without leaning forward. Execute the movement slowly and hold the peak contracted position for the count of 2. (Note: Holding the contraction on this and the following neck machine exercises dissipates any momentum built up during the exercise, forcing the muscles to work harder.) Perform 12-15 reps for 1-2 sets.



Training Extension #2

Sit down on the neck machine and face away from the lever arm. Rest the back of your head on the pad and tilt your head backward as far as possible without leaning back. Execute the movement slowly and hold the peak contracted position for the count of 2. Perform 12-15 reps for 1-2 sets.



group that adds in

Extension (a.k.a. hyperextension). The ability to lift your chin away from your sternum, such as when you look up. (Primary muscles: splenius capitis, semispinalis capitis, suboccipitals, trapezius)



extension of the neck is the trapezius, an upper back muscle that runs in a fan-like shape from the middle of the back to the base of the neck. Olympic lifting exercises, such as the power clean and power snatch, strongly affect this area. In fact, when my neck extension strength was tested about 15 years ago on a \$75,000 machine, I was told that I had the highest score of anyone the facility had ever tested. This suggests either that my Olympic lifting background developed strong neck extensors or that everyone else tested was a pencil neck geek!

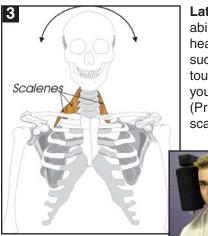
A more direct exercise is the Hex bar shoulder shrug. Because the shape of the Hex bar allows the

arms to rest at your side (i.e., the power line), the trapezius is worked more directly - it's really an exercise you have to try to appreciate how much more effective it is than shoulder shrugs with a regular bar.

The best time to perform the shrug is immediately after you're finished with your Hex bar deadlifts. Unless you load the bar and lift it from blocks or from a power rack, you'll have to lift the weight from the floor, and you don't want to do this unless you're warmed up. After your last set, simply stand up and pull your shoulders towards your ears. Keep your arms straight and chin retracted slightly (i.e., don't stick out your chin) as you perform the exercise. Also, do not roll your shoulders, as this creates potentially harmful stress to your rotator cuff muscles. Perform 12-15 reps for 1-2 sets.

Training Lateral Flexion #3

Sit down on the neck machine and face to the side of the lever arm. Rest the side of your head on the pad and tilt your head sideways as far as possible without leaning over, as if you were trying to touch your ear to your shoulders Perform the movement slowly and hold the peak contracted position for the count of 2. Perform 12-15 reps for 1-2 sets.



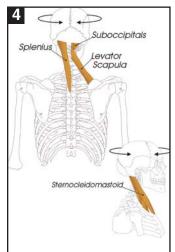
Lateral Flexion. The ability to tilt your head to the side, such as when you touch your ears to your shoulders. (Primary muscles: scalenes)



Training Rotation #4

I've seen only one machine that provides progressive resistance for neck rotation; and the last time I checked, the price was \$75,000. So unless your last name is Trump or Gates, you're probably going to have to rely on manual resistance for this one. However, we recommend you perform this on yourself rather than using a partner. Unlike the other functions of the neck, very little resistance is needed to provide sufficient overload for the neck with this exercise.

From a sitting position, turn your head to one



Rotation. The ability to move your head from side to side, such as when you look over your shoulder. (Primary muscles: splenius capitis, sternocleidomastoid, levator scapula, suboccipitals)

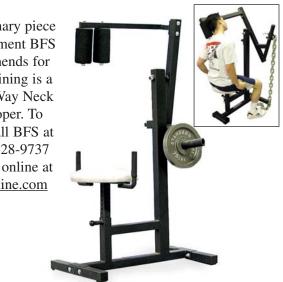


(Anatomical drawings by Sylvain Lemaire will be available this summer from BFS.)

side, as if you were looking over your shoulder. Using your opposite hand, apply gentle resistance to your chin and slowly turn your neck in the other direction as far as comfortable. Perform 12-15 reps, gradually increasing the resistance each rep – but don't go to failure! After completing a set, use the other hand and repeat for the other side. Again, one set, or at the most two, is all that is necessary.

Although these neck exercises are simple, we strongly recommend that you have a coach demonstrate them to you, and then supervise you when you first perform them. You may think you're performing these exercises correctly, but a coach can easily spot errors such as improper body alignment that can reduce the effectiveness of the exercise and may increase the risk of injury. Follow these recommendations and you'll safely develop an area that is too often neglected. Best of all, you'll make Freddie Blassie right proud—no pencil neck for you!

The primary piece of equipment BFS recommends for neck training is a BFS 4-Way Neck Developer. To order, call BFS at 1-800-628-9737 or order online at BFSonline.com



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