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Nickel Coverage Variety

by

Dick Newman

**Assistant Football Coach
University of Mary**

The popularity of one-back offensive formations has forced many defensive coaches to change their base package in favor of defensive schemes that offer adequate run support as well as sound, flexible secondary coverage capabilities. As such, we have adopted a multiple nickel look to cater to our preparation needs when we are confronted by one-back oriented opponents.

Diagram number 1 illustrates our base nickel alignment against a Double Slot formation. Our frontal alignments are subject to change but the intent of our design is to maintain proper pass rush

lane spacing and to remain sound against one-back running schemes. We try to remain consistent in our initial secondary alignments, however, in hopes of disguising our coverages.

Our Corners assume a 2 X 6 alignment on the number one receiver to their respective side of the formation. The Safety and Nickel personnel line up at a depth of 10-12 yards. In terms of horizontal alignment, they will split the distance between the first and second receiver to their side of the formation but they will not line up any wider than the hashmark to their side of the field. The Eagle and Stud

Safties align in a 3 X 4 position on the number two receiver to their side of the formation. These alignments are subject to change, depending on the horizontal width of #2, because we will not sacrifice sound coverage alignments for disguise. Our Linebacker is positioned head-up on the single back at a depth of five yards. Diagram number 2 depicts the basic pre-snap nickel alignments of our secondary defenders.

The first coverage that we teach out of our nickel scheme is 2-zone. Two-Zone is a traditional five under/two deep zone coverage. Our

Strength Training Q & A

#4

by
Matt Brzycki
Strength Coach and Fitness Coordinator
Princeton University

I *Is it really necessary to warm-up in order to maximize physical performance?*

The research regarding the need for a warm-up seems to be inconclusive. Some studies have shown that a warm-up facilitates performance; other studies have shown that performances without a prior warm-up were no different than those with a warm-up. Nevertheless, a warm-up has both physiological and psychological importance. More importantly, warming up prior to activities involving violent muscle contractions -- such as sprinting -- is advisable to reduce your risk of injury.

For years, warming up was synonymous with stretching. However, warming up and stretching are two separate entities and must be treated as such. A warm-up should precede your flexibility training. Warm-up activities usually consist of low-intensity movements such as light jogging or calisthenics. Regardless of the warm-up

activity, the idea is to increase your blood circulation and body temperature. According to scientific research, the body is adequately warmed up when your temperature increases by one degree celsius. However, it's not always practical to run around with a oral thermometer! For convenience, breaking a light sweat during the warm-up indicates that your body temperature has been raised sufficiently and you're ready to begin stretching your muscles.

By the way, there's no need to stretch or warm-up prior to strength training -- provided that you're performing a relatively high number of repetitions and lifting the weight in a controlled manner without any ballistic movements.

Will plyometrics improve my vertical jump?

Not necessarily. The term plyometrics applies to any exercise or jumping drill which uses the myotatic or stretch reflex of a muscle. This par-

ticular reflex is elicited when a muscle is pre-stretched prior to a muscular contraction and results in a more powerful movement than would otherwise be possible. For example, just before you jump vertically -- such as for a rebound -- you bend at your hips and knees. This "countermovement" pre-stretches your hip and leg muscles allowing you to generate more force than if you tried to jump without first squatting down. Popular exercises based on this principle include bounding, hopping, and various box drills. Upper body plyometrics frequently incorporate medicine balls.

Within the past few years, a growing number of strength and fitness professionals have begun to question these drills in terms of being productive and safe. Why? First of all, there's been absolutely no scientific evidence that proves plyometrics are a productive form of exercise. Most of the support for plyometrics has been from personal narratives and

sketchy research. One plyometrics guru even admits that the informations about plyometrics is anecdotal and "methodologically weak." More importantly, the possibility of injury from plyometrics is positively enormous. In fact, many prominent orthopaedic surgeons, physical therapists and athletic trainers view plyometrics as "an injury waiting to happen." When performing plyometrics, the musculoskeletal system is exposed to repetitive trauma and extreme biomechanical loading. Potential injuries include -- but aren't limited to -- sprained joints, muscle strains, heel bruises, shin splints, stress-related fractures, meniscal damage, patellar tendinitis, ruptured tendons and vertebral compression. Young athletes are especially vulnerable.

So, plyometric exercises have not been proven to be productive and carry an unreasonably high risk of injury. Your vertical jump can be improved by simply practicing your jumping skill and technique in the same manner that you would use it in your sport and by strengthening your major muscle groups, especially your hips and legs.

One final word of caution: I predict that within the next few years, individuals who have been injured doing plyometrics -- and other ballistic activities -- will pursue legal action against the person who had them do those movements. And after the first few cases, you can bet that such "leap and limp" law-

suits will be fairly commonplace in the courts.

I know that it's important for my players to do strength training, conditioning and skill work. What order would I schedule these three activities on the same day?

For best results, skill work should be done first. Of all three activities, the one that is most important to a sport is skill work. If your players are exhausted after running and lifting, they'll be spent both physically and mentally. Therefore, they won't practice very hard or work on their technique very well. In fact, they're sure to be inattentive and their performance will probably be quite careless, labored and awkward. Furthermore, players will be more prone to injury if they practice in a pre-fatigued state. Because of this, it's best not to practice skills after intense lifting or conditioning.

Whether strength training or conditioning follows skill training depends upon the nature of your sport. If your sport or activity has a greater strength component (e.g. shot putting and high jumping), then your strength workout should come before your conditioning. On the other hand, if your sport or activity has a greater endurance component (e.g. basketball and soccer), then your conditioning activities should precede your strength workout. Research also indicates that better overall results are obtained when en-

durance work is performed before strength training.

About the author.

Matt Brzycki has been the Strength Coach and Health Fitness Coordinator at Princeton University since August 1990. Coach Brzycki has authored more than 90 articles on strength and fitness and a book, *A Practical Approach to Strength Training*, which is in its second edition. He has also coauthored the book *Conditioning for Basketball* with Shaun Brown, Strength Coach for the University of Kentucky basketball team.