

## Football Strength and Conditioning: CSCCa Recommendations and Best Practices

It is recommended that all NCAA athletes be provided a safe and effective, comprehensive strength and conditioning program, developed and administered by a full-time, qualified strength and conditioning staff. All aspects of the program should be based upon solid periodization concepts that incorporate appropriate variations in volume, load, and intensity, and that are appropriate to the specific phase of the training cycle. Athletic administrators should be encouraged to hire only strength and conditioning coaches who have obtained and maintain certification through a nationally recognized agency/organization/association with clearly documented competency standards, ongoing assessment, and continuing education requirements (CEU's). This organization should have an identifiable advisory board comprising experts from multiple disciplines representing the best interest of the student athlete.

Training programs should take into account the conditioning level of each athlete, as well as any medical problems or conditions that might predispose the individual to be adversely affected during conditioning activities. This requires that every athlete be thoroughly screened and evaluated, to determine readiness to participate in preseason conditioning programs, not only by the athletic training and team medical staffs, but also by the strength and conditioning staff through a preseason fitness/conditioning assessment to determine if the individual meets and established minimum criteria. Individuals who do not meet the established criteria should have their conditioning program adjusted accordingly. In addition, strength and conditioning staff members must insure that all conditioning programs properly manage all environmental factors, such as extreme heat and humidity, by providing the athlete adequate rest and recovery periods, nutrition, and hydration. In order to further protect the health, safety, and well being of the student athlete, the strength and conditioning staff should implement the following procedures:

- During summer workouts, incoming freshman should **ideally** be kept separate from the varsity—or at the very least, provided a closely-monitored, lower-intensity conditioning program to allow gradual physiological adaptation to occur if deemed necessary and in the best interest of the student athlete by the strength and conditioning coach. The step up from high school to college is quite dramatic. In addition, teenagers and young adults (ages 16-22), statistically spend an average of six hours each day in non-physical activities, such as: listening to music, watching television, playing video games, or surfing the net. Therefore, incoming freshmen, as well as transfers and walk-ons, may be largely physically and mentally unprepared for the rigorous conditioning program already in place for returning athletes. This practice will allow these athletes to safely reach the desired physical and mental level of conditioning while decreasing the likelihood of injury as a result of pushing too hard and too fast beyond current physical and mental limitations.
- Not only are incoming athletes at risk of injury, but student athletes returning "de-trained" are also at risk. The NCAA rules regarding discretionary training do not always allow for appropriate supervision. Furthermore, the risk of delayed onset muscle soreness is highly elevated following periods of detraining. In extreme cases, return to training camp (and too much exercise) has led to cases of muscle damage causing kidney failure and even death. This further supports the practice of timely and progressive

exercise training. Studies have shown that extended periods away from training reduce an individual's physical condition, occurring within as little as four weeks. One study showed that after an 8-week break in training that it can take as many as 20 weeks to get an athlete back to his peak level of conditioning. In spite of significant time constraints and immense pressure to have athletes at peak levels of performance, it is the responsibility of the strength and conditioning staff to thoroughly evaluate the level of conditioning of all returning athletes and to properly prescribe the appropriate volume, load, and intensity of training, as well as sufficient recovery, to protect the health and safety of the student athlete. We feel this requires more consistent and on-going supervision.

- For a variety of reasons, some athletes return un-acclimated to the heat. It is the responsibility of the strength and conditioning coach to help the athlete adapt to the physical demands of the climate in a responsible manner. Heat stroke deaths are preventable if the training sessions are closely monitored and if athletes have been properly acclimated. Fluids should be readily available and actively encouraged throughout practice and conditioning training sessions. Athletes and coaches, alike, should be educated on effective strategies to ensure proper hydration and reduce the risk for heat illnesses. Strength and Conditioning Coaches, Athletic Trainers, and Medical Personnel should share in the responsibility of monitoring and protecting the athlete from the dangers of heat exhaustion and heat stroke.
- After thorough health screenings by medical personnel and athletic trainers, Strength and Conditioning Coaches must be made aware of all health-related issues **in writing**, that could impact the training of the student athlete: for example, sickle cell, asthmatic and cardiac conditions, ADHD, etc., as well as any relevant medications being taken that could adversely affect the health and safety of the student athlete during intense conditioning activities.