Coastal Carolina University
Athletic Training Department
Policy and Procedure Manual
Body Composition

Revised/Reviewed 7/2011

INTRODUCTION:

1. The Athletic Training Department at Coastal Carolina University supports the development of healthy and responsible lifestyles for University student-athletes, with the goal of long-term enrichment and enhancement of their lives. Behaviors that threaten a healthy lifestyle can be addressed through a body composition assessment.

2. The assessment of body composition can be a useful tool in helping the student-athlete and coach understand the changes that are occurring as a result of training and nutritional factors. However, the body composition measurement process and the values obtained can be a sensitive issue for the student-athlete.

3. Everyone involved directly or indirectly with body composition measurement should understand that inappropriate measurement and use of body composition data might contribute to the student-athlete experiencing unhealthy emotional stress. This stress can lead to the development or enhancement of eating disorders in the student-athlete.

4. All coaches (sport or strength and conditioning) should be aware of the sizable influence they may have on the behaviors and actions of their student-athletes.

Goals

1. To implement an effective multidisciplinary approach regarding the rationale for body composition measurements, who is permitted to discuss the results with the student-athlete, who is permitted to obtain the results of the measurement, and what steps need to be taken to promote a healthy lifestyle, including who is involved in those steps.

2. To properly screen for those exhibiting signs and symptoms of eating disorders and provide proper treatment (refer to Coastal Carolina University Athletic Training Department's Eating Disorder Policy)

3. To provide medical, nutritional, and/or psychological services regarding body composition to the student-athlete while respecting his/her privacy.

Purpose of Body Composition Assessment

1. The purpose of body composition assessment is to determine the student-athlete's distribution of lean (muscle) mass and fat mass.

2. A high lean mass to fat mass ratio is often synonymous with a high strength to weight ratio, which is typically associated with athletic success

3. There is no ideal body composition for all student-athletes in all sports. Each sport has a range of lean mass and fat mass associated with it, and each student-athlete in a sport has an individual range that is ideal for them.

4. Student-athletes who try to achieve an arbitrary body composition that is not right for them are likely to place themselves at a health risk and will not achieve the performance benefits they seek.

5. A key to body composition assessment is the establishment of an acceptable range of lean and fat mass for the individual athlete, and the monitoring of lean and fat mass over regular time intervals to assure a stability or growth of the lean mass and a proportional maintenance or reduction of the fat mass.

6. It is important for coaches and student-athletes to use functional performance measures in determining the appropriateness of a student-athlete's body composition.

Concerns with Body Composition Assessment

1. Using weight as a marker of Body Composition
    - Weight can be (and often is) misused as a measure of body composition, and this misuse can detract from the purpose of body composition assessment.
2. Comparing Body Composition Values with Other Athletes
    - Differences in height, age, and gender are likely to result in differences in body composition, without necessarily any differences in performance.
3. Seeking an Arbitrarily Low level of Body Fat
    - Trying to seek a body fat level that is arbitrarily low can increase the frequency of illness, increase the risk of injury, lengthen the time the student-athlete can return to training after an injury, reduce performance and increase the risk of an eating disorder.
    - Body composition values should be thought of as number on a continuum and if a student-athlete falls anywhere on that continuum, it is likely that factors other than body composition (training, skills acquisition, etc) will be the major predictors of performance success.
4. Frequency of Body Composition Assessment
    - Real changes in body composition occur slowly, so there is little need to assess student-athletes weekly, biweekly, or even monthly.

Methods for Obtaining Body Composition

1. Body composition can be measured by several different methods including: hydrostatic weighing, girth and skinfold measurements, etc. Coastal Carolina University provides a 3-site skinfold measurement through the Smith Exercise Science Lab to determine body composition.

2. Body composition measurements will be conducted 4 different times throughout the school year with the exception of Men's and Women's Basketball. These measurements will correlate with each individual team's season.

3. The body composition results will be distributed to the Athletic Training Department and each sport's strength and conditioning coach. These results are to be kept confidential and will not be distributed amongst the teams.

Guidelines

1. Only medical personnel, including athletic trainers or approved specialists (as determined by the staff athletic trainer) may weigh athletes, set weight goals, measure body composition, or interact with student-athletes in any manner about body composition or body weight.

2. Pre-season weight monitoring during two-a-days for Football, Volleyball, and Men's and Women's Soccer teams in the Fall season are the exception to this rule so that proper monitoring of hydration status of the student-athlete participating in these sports are noted and the welfare and medical safety of the student-athlete is ensured and not compromised.

3. Coaches who are concerned about the weight or body composition of any athlete must contact his/her athletic trainer regarding this issue. Coaches may not approach the student-athlete about weight or body composition.

4. Coaches, athletic trainers, and athletic department personnel should emphasize the role of proper nutrition in optimizing athletic performance. They should not stress the impact of lower weight on performance. Coaches and other athletic department personnel should never, under any circumstance, suggest or encourage purging or fasting behavior.

5. Only medical personnel may recommend dietary supplements or a nutritional plan to an athlete and will do so based on a medical and nutritional evaluation. The student-athletes will be referred to the appropriate medical personnel when needed for further evaluation and care.

6. Coaches or other athletic department personnel suspecting a student-athlete of having an eating disorder should report any signs or symptoms noticed to the supervising athletic trainer of their respective sport. The Coastal Carolina University Athletic Training Department's Eating Disorder Policy will be activated as deemed necessary. Eating disorders are highly confidential and coaches must understand that information may be limited.

PROCEDURES:

1. Once the body composition measurements have been obtained by the Athletic Training Department, they will be screened for the athletes outside of the healthy ranges. Any and all health concerns outside of the ranges will be dealt with in the following manner.
    a) The student-athlete will be notified by the supervising athletic trainer for that particular sport about their body composition results.
    b) The healthy ranges (see chart below) for the student-athlete's sport/event will be discussed.
    c) Student-athletes outside of the healthy range will be referred to the University's nutritional counselors and Team Physician (Family Practitioner) for further evaluation if the Athletic Training and medical staff deem it necessary.
    d) Female athletes will be screened for disordered eating, a change in their menstrual cycle, and/or bone density abnormalities.
    e) Additional testing may be requested by the Team Physician (Family Practitioner) and may include: blood work, bone density scan, referral to a

gynecologist/women's health practitioner, and/or nutritional and psychological counseling.

f) Follow-up with the Athletic Training Department and/or medical personnel will be done as needed.

g) Coaches may be involved with the treatment of obtain information at the request of the athlete and/or medical personnel.

Acceptable Healthy Body Composition Ranges

Sport	Men	Women
Baseball	8%-14%	
Softball		12%-18%
Basketball	6%-12%	10%-16%
Football	6%-18%	
Golf	10%-16%	12%-20%
Soccer	6%-14%	10%-18%
Tennis	6%-14%	10%-20%
Track and Field/Field Events	8%-18%	12%-20%
Track and Field/Running	5%-12%	8%-15%
Volleyball		10%-18%

Reproduced and adapted from the *National Collegiate Athletic Association*

Sources: Wilmore, Jack H., Costill, David L., Kenney, W. Larry. (2008). Physiology of sport and exercise (4th edition). Champaign, IL: Human Kinetics.