

# Oregon State University Athletics Sports Nutrition

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## Body Composition & Weighing Policy

### **Policy Goal:**

To standardize a department wide policy addressing acceptable procedures for assessing body composition and the weighing of Oregon State University student athletes.

### **Policy Rational:**

Though, in more extreme circumstances, weight may be a factor in athletic performance, it is more widely recognized and agreed upon that body weight is a poor indicator or predictor of athletic performance. Sound training and nutritional strategies are much better predictors of performance and result in the optimal body composition and weight for sport performance.

Weighing athletes may provide information on body weight shifts but provides no information relative to changes in body fat and/or lean body mass. Weighing is, at best, a better indicator of hydration status and hydration shifts. Frequent weighing can however; create preoccupations with weight that extend beyond impact on performance. Young athletes both male and female typically interpret weight in terms of being overweight (over fat) or underweight (too little LBM). This tendency to overvalue weight can lead athletes into behaviors that compromise their ability to attain peak conditioning and performance and divert their attention from training techniques that result in skill improvement and mental training also necessary for success. An underfed or inappropriately fed athlete will not get the most out of their training sessions, adapt to the training load, or recover as quickly from training as a well fed athlete who is focused and ready to learn.

Coaches need to separate themselves from the individual's medical data due primarily to their significant leadership role with the athletes, especially female athletes, who culturally tend to be more susceptible to emotional reactions and judgments relating to the appropriateness of their weight. Stray comments, though well intentioned can cause significant problems for many athletes. Additionally, simply telling an athlete to lose weight provides no useful tools to create success. By allowing the medical staff to consistently monitor and interpret weight and ultimately body composition data, the coach can allow the trained professionals to appropriately manage this data so as to maximize its value relative to performance while minimizing its potential and unfortunately probable negative consequences.

The two primary risk factors for dysfunctional eating and disordered eating are distorted body/self image and preoccupation with food and weight.

Over 90% of college females seek to control weight via dieting, 35% of these move on to pathological dieting (sub-clinical dysfunctional/eating disorders), 25% of these end up with full blown eating disorders. However, this is not just a female issue. Over the last 10 years there has been an alarming

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increase in males with dysfunctional eating and eating disorders. One expert reported that over 40% of males are dissatisfied with their weight with 25% of these actively dieting. In college athletics compulsive overeating in males has significantly increased as has preoccupations with amount of muscle and body fat levels. On the recovery side, the average recovery time for an individual with a diagnosable eating disorder is approximately 5 years and for those with sub-clinical and chronic dieting disorders- that are more difficult to detect, and much more common in college athletics -the recovery range can be greatly reduced with prevention and intervention or greatly extended with mishandling.

The top nutritional issues for collegiate athletes are inappropriate fueling strategies and under fueling during their day. An athlete can be at an acceptable weight for performance but be under fueled or inappropriately fueled which will decrease performance to a much greater extent than the athlete that may appear to be of higher body weight but who has adequately fueled for the demands of their sport.

Based on this information and the expertise of Oregon State University Athletics Medical and administrative staff the following policies are to be enacted and adhered to by all OSU Athletic Department personnel.

### **Policy Regarding Athlete Weighing:**

Coaches will not be involved in the weighing of student athletes. Results from weighing are considered confidential information that may be shared only with the medical team (physician, psychological consult, relevant athletic trainer, relevant strength and conditioning coach and departmental sports nutritionist. Athletes will be made aware of this policy at team clearance exams. Routine weighing at clearance and physical exams, medical evaluations will be conducted by the appropriate medical staff and retained as a part of their confidential medical file. As a note: Departmental scales should be routinely calibrated using state standards and departmental scale results should not vary between locations.

### **Body Composition Assessments:**

The department medical staff recognizes that no field test of body composition is precise. However, changing techniques used for assessment interfere with the validity and reliability of the resulting data. Consequently, Oregon State University (OSU) Athletics will use a 7 site skinfold assessment technique based on the Jackson & Pollock formulas for calculating body composition using gender specific equations. Occasional use of the Pod-Pod or hydrostatic weighing by a trained and experienced professional may also be utilized. However, as often as possible; retesting will be performed using the original body composition method. Data from different body composition assessment techniques **CAN NOT** be compared.

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Starting in the fall of 2007, the sports nutritionist will be responsible for all body composition assessments. Until that time teams may continue with their current protocols and/or arrange with their trainer, strength and conditioning staff or the department's sports nutritionist appropriately timed assessments for their athletes. Athletes may also self refer to the sports nutritionist, and or be referred by other medical staff.

The OSU medical staff also agree that the real value in body composition assessments are in showing changes over time (test to retest changes) that are a result of their conditioning, lifting, training and nutritional programs.

### **Frequency of Testing:**

All incoming athletes will have their weight and body composition assessed as a part of their yearly team medical clearance exams. Athletes entering the athletics system at different times during the year are required to check in with the department sports nutritionist and have the assessment performed at that time. Beyond that initial assessment, teams and individuals can elect an appropriate retesting schedule within the following parameters:

1. There must be at least 6 weeks between body composition tests
2. The sports nutritionist may elect to retest at 1 month given very specific individual situations (limiting body fat gains from injury/surgery recovery, compliance with coach mandated weight loss for significantly overweight athletes whose weight possess additional medical an injury risk.

### **Handling of Data**

Body composition results that are considered either very high or low for athletes, and that could pose a medical risk or increased risk of injury, will be evaluated on a case by case basis by the medical team as a whole. Criteria's for "red flagging" athletes based on body composition are as follows;

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|----------------------------|---|
| <b>Red flagged as high</b> | Males greater than 25% BF<br>Females greater than 30% |
| <b>Red flagged low</b>     | Males 5% or less<br>Females 13% or less               |

Individual sports and positions may have different goal ranges for their athletes. These numbers or ranges need to be discussed and agreed upon based on the input of the sport specific ATC, strength and conditioning coach and sports nutritionist.

Body composition assessments are not to be conducted by coaches or by outside of athletic department resources unless the medical staff is made aware of and agrees to the assessment *in advance*. Results from body composition assessments are kept confidential.

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Specific results will be given to individual athletes by the sports nutritionist and only as a part of an individual sit-down discussion. Sport specific athletic trainers, strength and conditioning staff can convey the information in the form of suggestions to modify training to reach the desired outcome (Eg. Athlete A needs to increase cardiovascular activity to decrease body fat)

Coaches should not pressure, suggest or insist that athletes share their results. Athletes should be strongly advised that they should not compare themselves to other team members, other athletes in different sports or any other individuals. Coaches should not mandate, or suggest percent body fat goals for individuals or the teams as a whole.

On a case by case basis an athlete may agree to have the ATC, strength and conditioning coach, or sports nutritionist convey results and changes to specific coaches.

When conveying team results to coaches. The medical and training staff should speak in terms of team averages, and again focus on what might need to shift in training and team nutritional strategies.

### **Handling of Results Summary:**

1. The Sports Nutritionist should be the only individual giving out results to the individual athletes.
2. Team data will be translated (by the medical staff) from raw numbers into training and nutritional goals as set by the sport specific ATC, strength and conditioning coach and sports nutritionist.
3. Coaches will not be given raw data.
4. Individual's data should be presented in the context of averages for teams, ranges and degree of change over time. Absolute values can be given but only within the context of a sit-down session with the sports nutritionist.

### **Special Considerations:**

Per NCAA Guidelines/recommendations data relevant to certification weights for wrestling may be handled in a sports specific manner. Body composition assessments and athlete weighing data should be shared with relevant departmental personnel as necessary (Team physician, athletic trainer, strength and conditioning coach and departmental sports nutritionist). Athletes looking to change their body composition and weight should be encouraged to work with the sports nutritionist as well as other training staff.

Athletes should avoid trying to modify body composition and or weight during competitive season unless there is an advantage to "peaking" which might be seen in some track and field events. Athletes focusing on trying to change body composition should be encouraged to work with the sports nutritionist

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during their post-season and off season and not during pre or during competitive season to avoid inconsistent or inadequate fueling.

### **Body Mass Index:**

Body Mass Index (BMI) is not a useful tool in determining appropriate weights or for evaluating weight for collegiate athletes. BMI tends to penalize individuals with higher than normal muscle mass levels as is common and desirable in athletes. BMI is a useful tool in working with individuals and athletes who are significantly underweight. Athletes with BMI results for females of <19 and for males of <20 should result in a "RED FLAG" of this athlete and lead to further evaluation.

**Updated Fall 2007**

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