

Oregon Wrestling Weight Monitoring Program



CERTIFIED ASSESSOR HANDBOOK 2024-25

<http://www.osaa.org/activities/wre/information/owwmpas>

THE OREGON WRESTLING WEIGHT MONITORING PROGRAM

The purpose for this program is to ensure the future and safety of scholastic wrestling programs in the State of Oregon. It has been developed in response to the concern for guidance of young wrestlers as they make decisions about diet, nutrition, and weight control. It has been documented that wrestlers often attempt to lose weight rapidly to gain a perceived advantage over their opponent. The program is designed to assist in avoiding potentially harmful rapid weight reduction practices utilized to achieve specific weight class participation.

COMPONENTS

The program consists of three parts:

1. The Nutrition Education Program
2. The Regulation
3. Assessor Certification

This handbook addresses program protocols and provides hints and suggestions that will be helpful to you. It is important that you are aware of the nature of the total program. Coaches, parents, and administrators will ask questions during the assessment process so it will be important familiarize yourself with all components of the program.

Additional information and resources are available on the OSAA website. The Assessor Resource Page contains general program information, assessment forms, sports medicine related research, and helpful reminders to make your experience as an OSAA Certified BIA Assessor a positive one.

THE PROFESSIONAL RESPONSIBILITIES

It is considered a “conflict of interest” for an active wrestling coach, at any level, to become an OSAA Certified BIA Assessor.

When an individual is registered with the OSAA as a “Certified BIA Assessor” there is an automatic concern for professional responsibility. There is an expectation of the highest professional and ethical conduct relative to performing assessments on the wrestlers in Oregon. These wrestlers should be treated with the highest regard for their “right to privacy” and for the confidentiality of all data collected on them for this program.

You will be issued codes and passwords for all member schools participating in wrestling. This will allow you the flexibility to assess and enter data for any wrestler in the state. With this flexibility comes the responsibility to ensure the security of these codes.

As an OSAA Certified Assessor you are expected to conduct yourself in a manner such that there will be no question about your positive contribution to the participants in the sport of wrestling. There will be times when professional judgment will be involved to clarify and validate the assessment process; the greater the depth of your understanding of body composition assessment, the more able you will be in representing the OSAA and the program.

The Oregon Wrestling Weight Monitoring Program

THE NUTRITION EDUCATION PROGRAM

I. EDUCATING THE STUDENT AND PARENT

- A. Annually, wrestlers will be provided nutrition education during a one hour seminar.
- B. It is recommended that education seminar be presented by any person who may be a dietitian, health educator, nutritionist, physician, nurse or others with a background in nutritional science.
- C. The one hour seminar shall include a discussion on each of the following topics:
 - a. Nutrition education will emphasize proper growth as well as healthy weight reduction approaches.
 - b. Students and parents will be encouraged to resist unhealthy weight reduction practices.
 - c. The impact on growth, development, and lifelong health will be primary in the education of the student.
 - d. Emphasis will be placed on eating reasonable amounts of proper foods to maintain healthy bodies rather than to binge and purge.
 - e. The dangers of dehydration will be explained and the practice of dehydrating to achieve a weight will be discouraged.
 - f. Using the TrackWrestling OPC as an aid to develop an appropriate nutritional plan.
- D. Schools are encouraged to have monthly follow up programs throughout the season to assist parents and wrestlers in handling the demands of the season.

II. NUTRITION COMPONENT

The National Federation of State High School Associations (NFHS) has produced a free Sports Nutrition Course for student athletes and parents. Proper nutrition can optimize athletic performance. This course hosted by sports medicine specialist Dr. Mick Koester, can help your students be performing at their peak. The course also contains practical tips for coaches on how you can model and teach proper nutrition to your athletes.

Parents are encouraged to participate in the development of an appropriate nutritional plan. Parents can visit the OSAA website at <http://www.osaa.org/activities/wre/information/owwmp> to download additional resources on nutrition. The free NFHS Sports Nutrition Course can be found at <http://nfhslearn.com/courses/55000>.

"THE REGULATION"

The establishment of a lowest eligible weight class based on 7% body fat for males and 12% for females is required for all OSAA member school participating in Wrestling. The OSAA does not advocate that a wrestler's established lowest eligible weight class is the athlete's best weight class, but simply the minimum weight class at which the athlete will be allowed to compete.

The OSAA will utilize the TrackWrestling OPC as the mechanism to calculate the minimum wrestling weight for each wrestler and use this minimum wrestling weight to assign the lowest eligible weight class for the season.

Assessors will use the TrackWrestling OPC as a data reporting tool. Schools will utilize the site as a data retrieval tool and nutritional program supplement.

I. ESTABLISHING CERTIFIED MINIMUM WRESTLING WEIGHTS

- A. Bioelectrical Impedance will be utilized to determine each wrestler's body fat percentage. Only measurements taken by persons who have successfully completed the OSAA BIA Assessor Workshop will be accepted.
- B. If a wrestler is unable to participate in the Bioelectrical Impedance Assessment because of factors outside of their control, OSAA staff will determine the appropriate alternative assessment method (Skin Fold, Bod Pod, or Hydrostatic Weighing) that will be used to determine the minimum wrestling weight for the wrestler.
- C. Specific gravity of the urine will determine whether or not a wrestler may participate in an assessment. A specific gravity result of less than 1.025 is required in order to participate in the Bioelectrical Impedance assessment. All wrestlers exceeding the specific gravity requirement must wait a minimum of 48 hours in order to be retested.
- D. The lowest eligible weight class a wrestler may compete at during the season will be determined by their minimum wrestling weight. An allowance of .5% (.005) per adopted weight class will be added for the purpose of determining the lowest eligible weight class. This allowance does not apply to any regular season or post season weigh-in.
- E. A wrestler may not compete until they participates in an initial assessment, has had a minimum wrestling weight determined by the TrackWrestling OPC, and their name and data appears on the school's Alpha Master Form.
- F. A wrestler who participates prior to completion of all of steps outlined in Part I (E) will be considered an ineligible participant and the represented school is subject to the penalties outlined in Rule 5 of the OSAA Handbook.

II. TIME PERIOD FOR MEASUREMENTS

- A. Assessments may begin on the first date of practice for the OSAA winter season. Wrestlers may be assessed any time on or following this date to establish a minimum wrestling weight for the season.
- B. Saturday of the week prior to the Culminating Event Week is the deadline to establish a minimum wrestling weight.
- C. Unusual situations must be arranged with the OSAA in writing before deadline or due dates.

III. SCHOOL RESPONSIBILITIES FOR THE MEASUREMENT PROCESS

- A. It is the school's responsibility to contact and contract with an OSAA Certified BIA Assessor from the list provided by the OSAA.
- B. Schools will be required to have available at the time of assessment:
 - 1. BIA Data Forms for all wrestlers
 - 2. Four adults (coach, teacher, AD, parent, etc...) who may:
 - i. Assist with measuring height
 - ii. Assist with the recording of data.
 - iii. Assist with urine specific gravity testing (Wrestling coaches are not permitted to do this step).
- C. Bioelectrical Impedance assessments shall not be conducted by any active wrestling coach at any level.

IV. WRESTLERS ASSESSED BELOW 7% (males) or 12% (females) BODY FAT

- A. Prior to competition, any wrestler whose body fat percentage is assessed below 7% for males and 12% for females must obtain in writing a licensed physician's (As per ORS 336.479, Section 1(5)) clearance stating that the athlete is naturally at this sub- 7% or sub-12% body fat level.
- B. A physician's clearance is valid for one season and expires March 15th of each year. The sub-7% male or sub-12% female, who receives clearance, may not wrestle below their actual weight at the time of initial assessment.
- C. Wrestlers whose body fat is assessed under 7% for males or 12% for females may appeal the results of the initial assessment using Part VII (Step 2) of the appeal process outlined in this regulation.

V. GROWTH ALLOWANCE

- A. A 2lb growth allowance will be added to each weight class on the second Sunday in January.

VI. WEIGHT LOSS PER WEEK AND EVENT WEIGH-IN REQUIREMENTS

A: WEIGHT LOSS PER WEEK

- 1) An average weight loss limit of 1.5% of body weight at the time of initial assessment per week has been set. A season long weight loss plan will guide the wrestler's weight loss during the season.
- 2) The season long weight loss plan will determine which weight classes a wrestler may participate at each week.
- 3) For each contest or event during the season:
 - a. If a wrestler's weigh-in qualifies the wrestler for either of the two eligible weight classes listed on their season long weight loss plan for that given week, the wrestler may participate at the weight class for which they qualify or one weight class higher.
 - b. If a wrestler's weigh-in does not qualify the wrestler for the lowest eligible weight class listed on their season long weight loss plan for that given week, and they participate, the wrestler will be considered an ineligible participant and the represented school is subject to penalties outlined in Rule 5 of the OSAA Handbook.
 - c. If a wrestler's weigh-in does not qualify the wrestler for the highest eligible weight class listed on their season long weight loss plan for that given week, and they participate, the wrestler's lowest eligible weight class for the season shall be immediately re-certified up one weight class. In these cases, prior to any future competition each member school is responsible to manually raise the wrestler's lowest eligible weight within the schools TrackWrestling OPC account.
- 4) Any wrestler whose body fat was assessed below 7% for males and 12% for females at the time of initial assessment shall not use the growth allowance granted in Part V of the policy to achieve a lower minimum wrestling weight class

B: EVENT WEIGH-IN REQUIREMENTS

- 1) Prior to any weigh-in during the regular season each school is required to provide a roster containing a listing of their potential wrestlers and the two eligible weight classes for each wrestler on that competition date. Each wrestler's actual weight and weight class of participation that day will be recorded on the schools roster and submitted to the represented school's Athletic Director directly after the conclusion of the event.
- 2) The school's Athletic Director is responsible to verify that the season long weight loss plan for any wrestler who has failed to qualify at one of their eligible weight classes for an event has been modified as per A3)c above prior to any future competition

VII. APPEAL PROCESS

NOTE: *In order to utilize the results of an appeal the school must receive notification from the OSAA office prior to allowing the appealing athlete to compete.*

Parental permission is not a valid means to establish a lower minimum wrestling weight. Parental permission to lower a minimum wrestling weight has been eliminated from the Oregon Wrestling Weight Monitoring Program.

Any athlete may appeal their assessment results one time by reassessment. Step 1 may be bypassed and only Step 2 performed. The steps of the appeal process are as follows:

Step 1: The athlete shall repeat the BIA Assessment as described in the regulation.

- A. The reassessment shall occur within 14 calendar days of the initial assessment date unless a written extension is granted by the OSAA before the expiration of the 14-day period. The 14-day appeal period shall start on the day following the date of initial assessment. Day one through seven does not permit any loss of weight for an appeal to be valid. During the second week, days 8-14, a wrestler may weigh no less than 1.5% (rounded down to nearest .1 (1/10) lbs.) of the body weight measured at the initial assessment. Failure to meet these conditions or timelines is cause for denial.
- B. Data shall be recorded on the BIA Data Form
- C. Reassessment includes Hydration Assessment
- D. A wrestler who competes at a weight class allowed by their weight loss plan before or during an appeal has accepted their most recent assessment and voids all appeal options allowed within this policy.

Note: Step 1 is not an option for wrestlers whose body fat is assessed under 7% for males or 12% for females.

Step 2: If dissatisfaction with the results remains, the wrestler may choose Hydrostatic weighing or Air Displacement Plethysmography (Bod Pod) assessment to determine body fat percentage. Results obtained at this step are automatically accepted; the athlete, family, school or coach may not appeal further.

- A. The Hydrostatic Weighing or Air Displacement Plethysmography (Bod Pod) Assessment shall occur within 14 calendar days of the initial assessment date unless a written extension is granted by the OSAA before the expiration of the 14-day period. The 14-day appeal period shall start on the day following the date of initial assessment. Day one through seven does not permit any loss of weight for an appeal to be valid. During the second week, days 8-14, a wrestler may weigh no less than 1.5% (rounded down to nearest .1 (1/10) lbs) of the body weight measured at the initial assessment. Failure to meet these conditions or timelines is cause for denial.
- B. The school shall file a "Hydrostatic Weighing Proposal" or "Air Displacement Plethysmography (Bod Pod) Proposal" prior to appeal. The OSAA will assign the appeal facility. When the proposal is granted the school has the responsibility to contact the approved facility to schedule the assessment.
- C. Reassessment includes Hydration Assessment
- D. Hydrostatic Weighing facilities and Air Displacement Plethysmography (Bod Pod) units must be approved by the OSAA.
- E. Hydrostatic Weighing or Air Displacement Plethysmography (Bod Pod) Assessment must be conducted before the wrestler participates for the first time.
- F. A wrestler who competes at a weight class allowed by their weight loss plan before or during an appeal has accepted their most recent assessment and voids all appeal options allowed within this policy.

VIII. COSTS

- A. All costs incurred for initial assessment, appeal process, and TrackWrestling OPC are the responsibility of the school or parent.
- B. Charges for Bioelectrical Impedance Assessment may not exceed \$4.50 per person when schools contract with an OSAA Certified BIA Assessor. Charges for regional testing sites (2 or more schools) may not exceed \$5.50 per person.
- C. OSAA Certified BIA Assessors are permitted to charge mileage at OSAA adopted rate of 50.5 cents/mile or a service fee of \$30 or less whenever travel is required to a location. Service charges or mileage shall be pre-arranged with the school(s) prior to performing the assessments.

"TRAINING THE ASSESSOR"

I. Training the Assessor

- A. Persons eligible to be trained as OSAA approved assessors include physicians, registered nurses, licensed practical nurses, certified athletic trainer, physical therapist, physician's assistant, nutritionist, health educator, exercise physiologist, or other persons approved by the OSAA.
- B. Each assessor candidate will be required to submit to a criminal history screening prior to acceptance into the program.
- C. The assessor will submit to a training session and annual update education.
- D. The assessor will be subject to a random sample test to substantiate the quality of their measurements.
- E. The assessor training will consist of a minimum of one hour of classroom training which includes practical experience.
- F. A training fee will be charged to each assessor candidate to attend the training program.

II. Re-certification

- A. Assessors who have demonstrated successful experience may re-certify by completing an online examination of up to 50 questions, up to 20 days prior to the first BIA Assessment date allowed.
- B. Assessors may be required to repeat the in-service program when a lapse of one year or more occurs or significant performance decline is noted.

III. Data Collection

- A. The OSAA will provide all reporting forms. Assessors will send all completed BIA Data Forms (including those failing the hydration component), the schools Alpha Master, and a completed BIA Reconciliation Report after completion of the initial assessment.
- B. The assessor will conduct all Bioelectrical Impedance measurements.
- C. The assessor will provide the strips, cups or other approved instruments to conduct the urine specific gravity test.
- D. The assessor will be responsible for submitting the measurement results to the OSAA within two working days after the initial assessment is made and post all wrestler data to the TrackWrestling OPC website.
- E. Wrestlers failing the hydration component will not be recorded in the TrackWrestling OPC.

BODY COMPOSITION BASICS

The human body can be represented as composed of at least two components:

1. Lean Body Mass (LBM)= the muscle and bone mass predicted to be in the body and
2. Body Fat (BF) = essential and non-essential fat storage predicted to be in the body

To some, this is an over simplification. The actual composition of an individual's body is probably not truly known, nor can it actually be determined. All current methods of assessing body composition are indirect methods or predictions of the actual values. While underwater (hydrostatic) weighing has long been considered the "gold standard" (the method to which all other methods of body composition determination have been related) it too has been critically reviewed as having the possibility for error. Population specificity, maturation, and sub- component validity have all been cited as having potential negative impact on hydrostatic body composition assessment. Current technology and its improvement will continue to lead researchers to develop new methods and refine those which currently exist. This will require that those of us assessing body composition through various field techniques must continue to update our knowledge and remain current relative to adjustments in assessment procedures.

METHODS USED TO PREDICT BODY COMPOSITION

There are a number of field techniques available to attempt to assess body composition. Following is a brief description of some common techniques:

1. Bioelectric Impedance Analysis (BIA): Bioelectrical impedance analysis measures the impedance or opposition to the flow of an electric current through the body fluids contained mainly in the lean and fat tissue. The high level of interest in this technique is related to the following advantages: it is non-invasive, inexpensive, and portable and requires minimal subject compliance.
2. Skeletal Anthropometric Widths (SAW): This method was developed by Tipton teal. Specifically for the wrestling population in Iowa. It utilizes diameter assessment with two types of anthropometric calipers on the chest, hip, and ankle joint areas along with height and weight. A prediction equation includes these various measurements to calculate minimal wrestling weight.
3. Near Infra-Red Technology (NIR): This is a method that was developed to determine the legal fat content of packaged meats for human consumption. It utilizes the theory of the passage of light waves through lean muscle tissue verses fat tissue. The cost of the units ranges from \$1000 to \$2000 and purport rapid and non-invasive assessment. Ultrasound technology has also been used in a similar manner to determine fat deposition.
4. Computed Tomography (CT): This is an example of new technology being adapted to the study of body composition. It was developed for the detection of normal verses pathological internal body components. Although few CT scan units are used strictly for determination of body composition, it may be the most valid potential assessment device currently available. As such it may define a new "gold standard" for body composition assessment.
5. Hydrostatic Weigh in (HWS): This is an ancient method (Archimedes' principle) adapted to the body composition assessment problem in recent times. It involves the submersion of an individual to determine the subject's under water weight which is used along with the weight on land to calculate the body density. It utilizes the concept that muscle mass and fat mass have specific know densities relative to water. The assessment of residual volume of the lungs is an important feature of this assessment. The availability of a proper space and equipment is a problem with this method, but it can be very accurate if all the conditions of assessment are met.
6. Skinfold Assessment (SFA): This is a current method which has gained popularity with the exercise and fitness community. It is based on the relationship between subcutaneous fat and total body fat and its inverse relationship to body density. The subject is measured at a selected number of sites to determine the thickness of the skin and the subcutaneous fat deposition. The skinfold thicknesses are used in a regression equation to calculate body density. The regression equations have been derived for specific populations, which is a key to validity of the prediction. The cost of accurate calipers range from \$200 to \$450
7. Air-Displacement Plethysmography (ADP): The Bod Pod uses air-displacement plethysmography to estimate percent body fat quickly, non-invasively and perhaps more accurately than hydrostatic weighing – with no special expertise required by the tester. Subjects are enclosed in a computerized "egg shell" for a short period of time during the test. Cost is prohibitive at this point with most units retailing for over \$30,000.

METHOD COMPARISON

The Oregon Wrestling Weight Monitoring Program calls for the assessment of all participants starting on the first practice date for winter sports. Given the methods reviewed above to accomplish this task the appropriate choice is bioelectrical impedance assessment. Work continues to be done to establish population specific methods, procedures, and calculations with this technology but studies have already shown high correlation between Bioelectrical Impedance Analysis and Hydrostatic Weighing. Standardization of procedures is a major factor in the control of validity and reliability. Bioelectrical impedance will be used to ensure accurate and fair results in an economically controlled environment.

UNDERSTANDING BIA TECHNOLOGY

Most technologies utilizes a patented "foot to foot" pressure contact electrode Bioelectrical Impedance I Analysis technique. The BIA technique is based on the fact that lean tissues have a high water and electrolyte content, and thus provide a good electrical pathway.

Fat mass contains a lower percentage of body water, and thus is a poor conductor of the electrical signal. By inducing a low energy, high frequency, electrical signal a measurement of the baseline resistance to the flow of electrical current can be made. This current is passed through the anterior electrode on the scale platform, and the voltage drop is then measured on the posterior electrode. The measurement relates directly to the volume of the conductor, which is used to determine total body water, lean body mass, and finally, fat mass. Percent body fat, as calculated by Tanita, is a highly researched proprietary formula combining impedance and weight measurements with height, gender, and age information.

BIOELECTRICAL IMPEDANCE ASSESSMENT TERMINOLOGY

The use of bioelectrical impedance assessment in the process of determination of body composition requires some standardization of terminology used in this field. The following is an attempt to accomplish this standardization:

1. Total Body Weight (TBW) = weight of the body on a certified, calibrated scale.
2. Body Density (BD) = the mass of the body per unit of volume. (The fat free component is assumed to have a density of 1.100 gm/cm³. the mass of fat is considered to be about .90 gm/cm³.)
3. Percent Body Fat (%BF) = the proportion of total body weight that is fat weight and expressed as a percentage. $\%BF = (TBW - LBM) / (TBW) \times 100$
4. Lean Body Mass (LBM) = the weight of the lean tissue of the body such as muscle, bone, and blood. The weight of the body without the fat weight. $LBM = TBW - FW$.
5. Fat Weight (FW) = the weight of the fat tissue of the body. Includes both essential and stored fat tissue. $FW = TBW \times \%BF$
6. Minimum Wrestling Weight (MWW) = the lowest weight at which a wrestler may compete, determined to be 7 % male, 12% female, body fat for the Oregon Wrestling Monitoring Program
7. Ideal Body Weight = a body weight selected for a specific individual or group based on both empirical and scientific evidence that provides an optimum level of performance.
8. Minimum Weight = a body weight selected for a specific individual or group based on a specific percent body fat. A minimal, but not necessarily ideal or optimum body weight
9. Regression Equations=equations which express the relationship (based on correlation) between the criterion measure (gold standard) and the prediction measure. In bioelectrical impedance assessment these are determined for specific combinations of sites, and specific populations.
10. Population Specificity=the attempt to make prediction calculation (equations) on representative subjects from specific groups of individuals, the results of which are intended to be applied to a similar, larger population. In bioelectrical impedance assessment for body composition the important specific factors are sex, age, national origin, maturation and hydration.
11. Biological Variability =variation which will contribute to error due to such factors as hydration and deposition sites.
12. Technical Variability =variability which will contribute to error due to such factors as lack of standardization of procedures among assessors.
13. Reliability = reproducibility, the consistency and dependability of a measure. $>.9$ with experienced assessors. Increases with fewer sites and monitored practice
14. Validity = degree to which an assessor obtains an accurate measure. How well the group being assessed matches the group from which the regression equation was obtained, Dependent upon: age, activity level, population specific, body composition status.

ASSESSMENT PROCEDURES

TIME PERIOD FOR MEASUREMENT

Bioelectrical impedance assessment may begin on the first practice date for winter sports (refer to OSAA Two-Year Calendar for date). Wrestlers MAY be measured any time on or following this date to establish the “Minimum Wrestling Weight”. The deadline for a establishing a valid “Minimum Wrestling Weight” is the Saturday of the week prior to the Special District Tournament. All wrestlers, including those coming out late (after the beginning of the season) must have their “Minimum Wrestling Weight” established prior to competing.

It is the school’s responsibility to contact an “OSAA Certified BIA Assessor” from the list provided by the OSAA or attend a regional assessment site in their area. If choosing to hold an assessment at the school, the school must have the following available at the time of the assessment:

OSAA BIA Data Forms.

Four adults (coach, teacher, A.D. parent) who may:

- 1) Assist with measuring height
- 2) Assist with the recording of data.
- 3) Assist with urine specific gravity testing (Wrestling coaches are not permitted to do this step).

Assessor Notes:

- Schools will naturally want to “practice” the assessment process prior to the actual initial assessment being performed. As an OSAA Certified Assessor it is imperative that you limit your involvement in these practice assessments – going beyond demonstrating how to use the scale and the correct protocol for the hydration assessment would be inappropriate.
- Plan ahead – you are providing cups and strips for both home and regional sites. Anticipate your needs and order supplies early.
- If conducting a home site assessment make contact with the site at least a week prior to the assessment and make sure that they understand their responsibilities – facility, personnel, forms, etc.. Remind them about the protocol (no practice, proper hydration, clothing, etc...) Make sure that you bring back-up supplies (forms, extra measuring device, marking pens for cups, stapler, etc...).
- If you are assessing at a regional location decide who is asking the following:
 - Who is opening the building for you?
 - Where is the assessment going to take place – is it adequate (space, restrooms, etc...)
 - Is there signage to direct teams when they arrive?
 - Who is going to close the building for you?
 - Contact numbers in case you have problems?

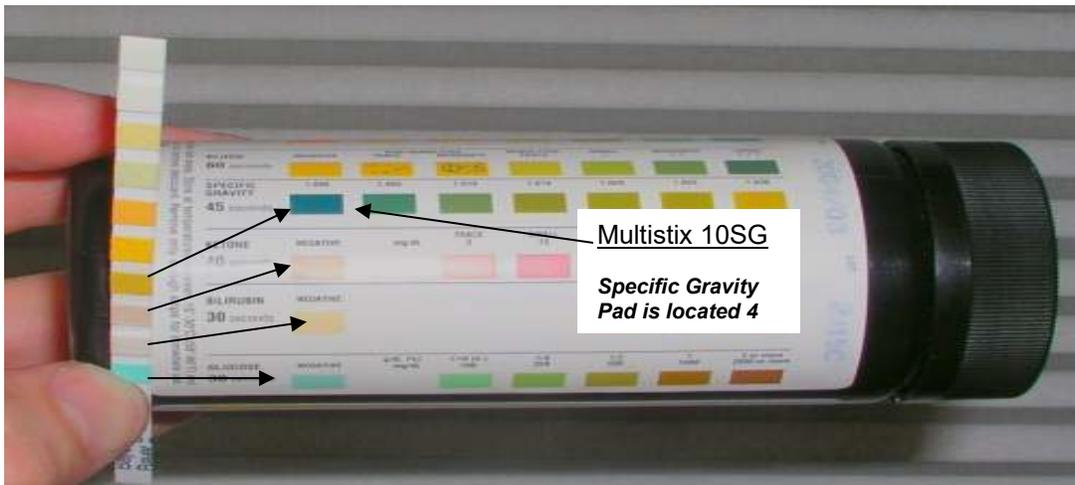
Assessor Notes:

- Multistix 10SG or 8SG are the recommended reagent strip to be used within the program. The strip should be trimmed to leave the tab for Specific Gravity as the end pad when holding the strip in the appropriate place. (Save time and cut the strips prior to arriving at the site)
 - If using the 10SG – cut the strip so only four (4) pads remain when holding the strip.
 - If using the 8SG – cut the strip so only three (3) pads remain when holding the strip.
- Remember – “one in and one out” – enforce this at all times.
- Each cup should have a temperature strip attached. Normal urine temperature is normally between 91 and 97 degrees – allow for a degree or two outside that range on both ends... if larger than this have the wrestler give another sample prior to reading the strip.
- Prior to hydration assessment issue each wrestler a specimen cup with their name on it. Draw a line at the bottom to indicate how much of sample you need to perform the assessment.
- No wrestler will be disqualified until an OSAA Certified BIA Assessor reviews the reagent strip.
- The OSAA has approved the use of refractometers for use within the program.

MULTISTIX REAGENT STRIPS – HINTS AND TIPS:

Step 1:

Locate the correct pad on the strip to assess Specific Gravity of urine sample. The picture below demonstrates how to identify the correct pad on the strip by comparing it to the label on the bottle.



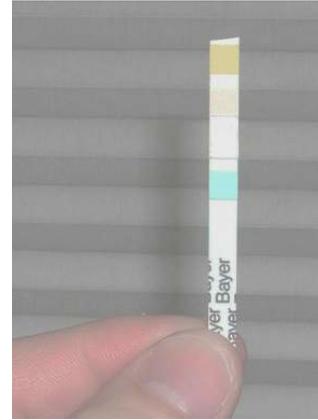
Step 2:

Cut the strip so that Specific Gravity pad is the last one on the strip.



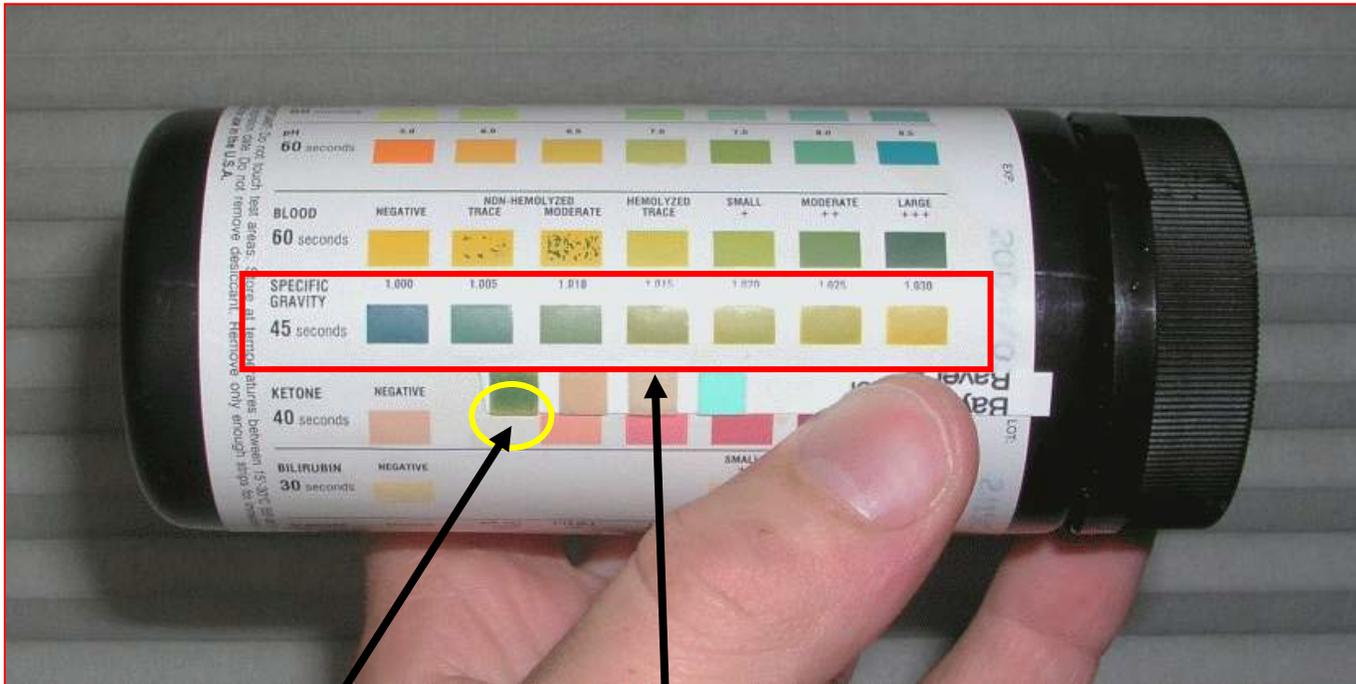
Step 3:

Cut entire bottle of strips to save time during the assessment process. The 10SG should have 4 pads remaining on the strip – the 8SG(not shown) will have only 3 pads remaining on the strip.



Step 4:

After placing strip into sample – follow the prescribed protocols and then place the strip as shown in the photo below.



Specific Gravity Pad

Match color of Specific Gravity pad as close as possible with one of the levels listed.

BIOELECTRICAL IMPEDANCE ASSESSMENT

Those meeting the specific hydration requirement will proceed to the area where the bioelectrical impedance assessment for body composition will be done. The setting should allow privacy for the subject and confidentiality of the recorded information.

- Height (in feet and inches) is measured and recorded on the BIA Data Form.
- Complete assessment using an approved Body Composition Analyzer.
- Attached assessment print-out for each athlete to the BIA Data Form. The form should be completed and accurate before the athlete is released.
- Input data for each wrestler into NWCA OPC powered by TrackWrestling and print results
- Mail the BIA Data Form for each wrestler, a printed copy of the schools Alpha Master, and the Assessment Reconciliation Form to the OSAA office a maximum of 48 hours after assessment

A key to the success of this program will be our ability to standardize the assessment procedures to determine minimal wrestling weight.

Assessor Notes:

- Have extra thermal tape for the scale you are using – make sure you verify this prior to arriving on site. Do not waste tape – turn off the Goal Setter and Wrestler mode (Tanita only) – you do not need them.
- Wrestlers should have the BIA Data Form filled out prior to the assessment starting. Schools can download the form on osaa.org - this will save you time if planned correctly. Do not depend on the school – have some extra forms with you – especially at regional locations. Include your OSAA Assessor ID# on the BIA Data Form prior to forwarding them to the OSAA office.
- Take the height measurement to the nearest ¼" – remember that the scale will automatically round the value. Make sure that athletes stand erect in bare feet – no shoes. This is important in getting the most accurate BF% possible. Bring an extra cloth or other flexible measuring tape just as a back-up.
- **Athletes are required to wear a legal competition uniform.** No clothing allowance will be granted regardless of what they are wearing. No exceptions!
- **DO NOT** perform BIA assessment on wrestlers failing the hydration component under any circumstances.
- Any wrestler assessed below 7% body fat for males and 12% body fat for females shall be provided a Physicians Release form at the time of initial assessment. You need to complete a section of the form that requires you to include the assessment date, body fat percentage, and scratch weight.

TO THE PHYSICIAN:

The Oregon School Activities Association has instituted the Oregon Wrestling Weight Monitoring Program to encourage healthy weight management by interscholastic wrestlers. As part of this program, a minimum weight is established for each wrestler prior to their competitive season.

Each wrestler's body fat and lean body mass is measured by an OSAA Certified BIA Assessor using Bioelectrical Impedance Analysis. A minimum weight is then calculated as 7% body fat for males and 12% for females using the NWCA OPC powered by TrackWrestling.

Your patient was assessed as less than 7% body fat (or 12% body fat for females). The athlete is requesting that they be allowed to wrestle at his or her present weight - (scratch weight at initial assessment). Because this weight is less than 7% (for males) or 12% (for females) body fat, OSAA guidelines require permission from the athlete's personal physician.

Most adolescents require 5-7% body fat (males) or 10-12% body fat (females) to achieve optimal growth and development. However, there are some adolescents who are naturally lean and develop normally at a lower percent body fat.

Please evaluate your patient for normal growth and development, paying particular attention to weight fluctuations and his or her growth curve. Based on the patient's history and your exam determine if his or her present weight is compatible with normal growth and development and good health and indicate your assessment on the reverse side of this memo.

Question or comments should be directed to Kelly Foster, OSAA Asst. Executive Director at kellyf@osaa.org or (503) 682-6722 ext. 233.

WRESTLER BELOW BODY FAT ALLOWANCE

Any **male wrestler** whose body fat percentage at the time of initial assessment is below 7% must obtain in writing a licensed physician's (As per ORS 336.479, Section 1(5)) clearance stating that the athlete is naturally at this sub-7% body fat level. In the case of a **female wrestler**, written physician's clearance must be obtained for athletes who are sub-12% body fat. A physician's clearance is for one season duration and expires March 15 of each school year.

Note: The sub-7% male or sub-12% female, who receives clearance, may not participate at a weight class lower than the minimum weight class listed on the wrestler's individual season long weight loss plan.

WRESTLER'S NAME: _____ GRADE: 9 10 11 12

SCHOOL: _____ CLASS: 1A 2A 3A 4A 5A 6A

CERTIFIED ASSESSOR – ENTER DATA BELOW AT THE TIME OF INITIAL ASSESSMENT

DATA REVIEW: Date of initial assessment ___/___/___ Body Fat % _____

Initial assessment scratch weight _____ lbs. Assessor Name _____

PHYSICIAN – ENTER DATA BELOW AT THE TIME OF ATHLETES EVALUATION

Date ___/___/___ Weight _____ lbs.

READ DESCRIPTION - CIRCLE "A" or "B"

A. The wrestler named has received clearance as required by the Oregon Wrestling Weight Monitoring Program, Part IV, to participate at a weight class no lower than the minimum weight class identified on the wrestler's individual season long weight loss plan.

B. The wrestler named is advised to wrestle at a weight which exceeds (is higher) than the weight class allowed by the wrestler's individual season long weight loss plan. The wrestler is restricted to participation at a weight class no lower than the National Federation weight classification circled below. **This weight class shall not be less than the wrestler's minimum weight class listed on the individual season long weight loss plan.** This permission is valid from November through March 15 of the current school year.

BOYS 106 – 113 – 120 – 126 – 132 – 138 – 144 – 150 – 157 – 165 – 175 – 190 – 215 - 285

GIRLS 100 – 105 – 110 – 115 – 120 – 125 – 130 – 135 – 140 – 145 – 155 – 170 – 190 – 235

PHYSICIAN'S SIGNATURE: _____ DATE: _____

NOTE: This form is the only document accepted as a "Physician's Clearance". Copies of this form shall be available and provided to opponent coaches if required by league or special district

STANDARD INSTRUMENTATION

The Tanita TBF-300WA Body Composition Analyzer, Tanita TBF-300WApplus Body Composition Analyzer, Tanita TBF-400WA Body Composition Analyzer, and the InBody 120 or 570 are the only approved instrumentation for the Oregon Wrestling Weight Monitoring Program.

PROTOCOL FOR STANDARDIZED ASSESSMENT

In an attempt to ensure valid and reliable bioelectrical impedance assessment the following general assessment protocol should be employed by the assessor and athletes:

- Athletes will avoid eating and drinking (especially coffee, tea, and colas) 4 hours before the assessment.
- Athletes will avoid intense exercise 12 hours before the test.
- Assessments should be completed between 3:00pm – 6:00pm if testing at home sites.
- Athletes will empty bladder 30 minutes before assessment
- Athletes will pass hydration assessment – (SG < 1.025) prior to impedance assessment. Those failing hydration component must wait a period of 48 hours before retest.
- Measure athletes in legal competition uniform with bare feet (for height measurement and impedance assessment)

Note 1:

Use of alcohol and/or diuretics can adversely affect assessment results.

There is no scientific evidence that bioelectrical impedance is safe on the fetus during pregnancy. This is particularly questionable during the very early stage of pregnancy where damage occurs so easily to the developing fetus.

Similarly, for those people that have implanted defibrillators, it is strongly recommended by National Institutes of Health never to be tested by bioelectrical impedance. Moreover, there are some researchers that question testing people that have heart pacemakers with bioelectrical impedance.

Girls should not to be tested during their menstrual cycle. Testing should be delayed for a period of 3-7 days following the end of their cycle.

Note 2:

Prior to competition, any male wrestler whose body fat percentage at the time of his initial assessment is below 7% must obtain in writing a licensed physician's (M.D. or D.O.) clearance stating that the athlete is naturally at this sub- 7% body fat level. In the case of a female wrestler, written physician's clearance must be obtained for and athlete who is sub-12% body fat. A physician's clearance is for one season duration and expires March 15th of each year. The sub-7% male or sub-12% female, who receives clearance, may not wrestle below their actual weight at the time of assessment by the physician.

Assessor Notes:

- Enter wrestler data immediately after assessments are completed – 48 hour maximum.
- Submit original BIA Data Forms with Tanita print-out stapled to the form. Each packet will also contain a printed copy of the schools Alpha Master and a completed Assessment Reconciliation Form regardless of whether you are charging the school or not. (Note: BIA Data Forms for those wrestlers failing the hydration component should be included in the packet you send.)
- **DO NOT** enter wrestlers failing hydration component into the NWCA OPC powered by TrackWrestling.

APPEAL PROCESS

NOTE: In order to utilize the results of an appeal the school must receive notification from the OSAA office prior to allowing the appealing athlete to compete.

Parental permission is not a valid means to establish a lower minimum wrestling weight. Parental permission to lower a minimum wrestling weight has been eliminated from the Oregon Wrestling Weight Monitoring Program.

Any athlete may appeal their assessment results one time by reassessment. Step 1 may be bypassed and only Step 2 performed. The steps of the appeal process are as follows:

Step 1: The athlete shall repeat the BIA Assessment as described in the regulation.

- E. The reassessment shall occur within 14 calendar days of the initial assessment date unless a written extension is granted by the OSAA before the expiration of the 14-day period. The 14-day appeal period shall start on the day following the date of initial assessment. Day one through seven does not permit any loss of weight for an appeal to be valid. During the second week, days 8-14, a wrestler may weigh no less than 1.5% (rounded down to nearest .1 lbs.) of the body weight measured at the initial assessment. Failure to meet these conditions or timelines is cause for denial.
- F. Data shall be recorded on the BIA Data Form
- G. Reassessment includes Hydration Assessment
- H. A wrestler who competes at a weight class allowed by their weight loss plan before or during an appeal has accepted their most recent assessment and voids all appeal options allowed within this policy.

Note: Step 1 is not an option for wrestlers whose body fat is assessed under 7% for males or 12% for females.

Step 2: If dissatisfaction with the results remains, the wrestler may choose Hydrostatic weighing or Air Displacement Plethysmography (Bod Pod) assessment to determine body fat percentage. Results obtained at this step are automatically accepted; the athlete, family, school or coach may not appeal further.

- G. The Hydrostatic Weighing or Air Displacement Plethysmography (Bod Pod) Assessment shall occur within 14 calendar days of the initial assessment date unless a written extension is granted by the OSAA before the expiration of the 14-day period. The 14-day appeal period shall start on the day following the date of initial assessment. Day one through seven does not permit any loss of weight for an appeal to be valid. During the second week, days 8-14, a wrestler may weigh no less than 1.5% (rounded down) of the body weight measured at the initial assessment. Failure to meet these conditions or timelines is cause for denial.
- H. The school shall file a "Hydrostatic Weighing Proposal" or "Air Displacement Plethysmography (Bod Pod) Proposal" prior to appeal. The OSAA will assign the appeal facility. When the proposal is granted the school has the responsibility to contact the approved facility to schedule the assessment.
- I. Reassessment includes Hydration Assessment
- J. Hydrostatic Weighing facilities and Air Displacement Plethysmography (Bod Pod) units must be approved by the OSAA.
- K. Hydrostatic Weighing or Air Displacement Plethysmography (Bod Pod) Assessment must be conducted before the wrestler participates for the first time.
- L. A wrestler who competes at a weight class allowed by their weight loss plan before or during an appeal has accepted their most recent assessment and voids all appeal options allowed within this policy.

Assessor Notes:

- Do not re-measure height when conducting an appeal – Assessor is responsible to retrieve initial height measurement from the wrestler's initial assessment data available on the NWCA OPC. Enter the same height for initial assessment and appeal.

Oregon Wrestling Weight Monitoring Program
AIR DISPLACEMENT PLETHYSMOGRAPHY PROPOSAL
(Step 1) – Complete and Return to the OSAA

A wrestler may choose to use air displacement Plethysmography (ADP) utilizing the Bod Pod® Body Composition System to determine body fat percentage. Results obtained at this step are automatically accepted; the athlete, family, school or coach may not appeal further.

Student to be tested _____ Grade _____

School _____

Proposed ADP Company _____

We understand that the results of the ADP analysis will replace all previous bioelectrical impedance assessments, cannot be appealed, cannot be modified by the Physicians Clearance form, or any other action, and will remain the reference for this student during the school year.

Parents Signature _____ Date _____

Coaches Signature _____ Date _____

AD Signature _____ Date _____

Submit this completed form to the OSAA, 25200 SE Parkway Ave, Suite 1, Wilsonville, OR 97060, (Fax 503-682-0960) prior to the ADP analysis. The analysis can take place once this form has been signed by the OSAA and returned to the school. The ADP analysis form shall be completed by the technician who will forward it to the OSAA.

OSAA Approval is required before ADP analysis may be conducted.

Approval is granted to conduct the ADP analysis as proposed provided the wrestler has not wrestled a varsity match.

Approval is denied - ADP Company not approved Technician Unacceptable

OSAA Signature _____ Date _____

Wrestler shall not compete until OSAA approval of ADP analysis is received by the school.

AIR DISPLACEMENT PLETHYSMOGRAPHY REPORT FORM
(Page 2)

- Subject shall be hydrated (specific gravity less than 1.025) at time of analysis.
- Subject shall not eat for at least four hours prior to analysis.
- Subject shall not exercise strenuously during the four-hour period prior to analysis.
- Subject shall avoid eating gas-producing foods (i.e. beans and diet sodas) 12 hours prior to analysis.
- Subject must bring appropriate clothing: Form fitting Speedo type swimsuit or short tights. A swim cap will be provided.
- Subject shall remove all jewelry.

Wrestler shall not compete until OSAA approval of ADP results are received.

Please type or print in ink – ADP analysis is invalid without an approved ADP Proposal.

Name _____ Grade _____ Date _____

School _____

Weight at initial assessment (lbs.): _____ **Date:** _____

Height (in): _____ **Age (yrs):** _____

Body Weight at ADP Assessment: _____

Note: Weight loss restriction after initial assessment:

- Days 1 to 7 - no weight loss allowed
- Days 8 to 14 - 1.5% of weight at initial assessment

Specific Gravity Test: Pass Fail

(Must be less than 1.025g/ml)

The Bod Pod has been calibrated and Quality Control is within normal operating specifications.

Body Fat Percent: _____% **Lean Mass (lbs.):** _____ **Fat Mass (lbs.):** _____

Subject not evaluated due to failure of: Weight Requirement Specific Gravity Requirement

Evaluator _____ Phone _____ Date _____

Address _____ Company _____

Location of Analysis _____

Signature of Evaluator

Date of Analysis

Submit this completed form to the OSAA, 25200 SE Parkway Ave, Suite 1, Wilsonville, Oregon 97060,
(scan and send to kellyf@osaa.org)



Oregon Wrestling Weight Monitoring Program

HYDROSTATIC WEIGHING PROPOSAL

(Step 1) – Complete and Return to the OSAA

A wrestler may choose to be hydrostatically weighed to determine body fat percentage. Results obtained at this step are automatically accepted; the athlete, family, school or coach may not appeal further.

Student to be weighed _____ Grade _____

School _____

Proposed Hydrostatic Weighing Facility _____

We understand that the results of the hydrostatic weighing will replace all previous bioelectrical impedance assessments, cannot be appealed, cannot be modified by the Physicians Clearance form, or any other action, and will remain the reference for this student during this school year.

Parents Signature _____ Date ____/____/____

Coaches Signature _____ Date ____/____/____

AD Signature _____ Date ____/____/____

Submit this completed form to the OSAA, 25200 SE Parkway Ave, Suite 1, Wilsonville, Oregon 97060, (scan and send to kellyf@osaa.org) to the hydrostatic weighing. Weighing can take place once this form has been signed by the OSAA and returned to the school. The hydrostatic weighing form shall be completed by the technician who will forward it to the OSAA.

OSAA Approval is required before Hydrostatic Weighing may be conducted

- Approval is granted to conduct the hydrostatic weighing as proposed provide the wrestler has not wrestled a varsity match
- Approval is denied - Facility Unacceptable Technician Unacceptable

OSAA Signature _____ Date ____/____/____

Wrestler shall not compete until OSAA approval of Hydrostatic results is received by the school.

Hydrostatic Weighing Report Form

(Step 2) – Complete Step 1 prior to using this form

- Please review site specific instructions prior to arriving at the site.
- Subject shall be hydrated (specific gravity less than 1.025) at time of test.
- Subject shall fast six (6) hours prior to test.
- Wrestler shall not compete until OSAA approval of Hydrostatic results is received.

Please type or print in ink – Hydrostatic Weighing is invalid without an approved Hydrostatic Weighing Proposal. Name

_____ Grade _____ Test Date ____/____/____

School _____ School ID# _____

Weight at initial assessment _____

Note: Weight loss restriction after initial assessment:

- Days 1 to 7 - no weight loss allowed
- Days 8 to 14 - 1.5% of weight at initial assessment

Appeal Weight: lbs. ÷ 2.2 kg x 1000 = grams

Estimated Vital Capacity:

a) _____ ml b) _____ ml c) _____ ml → Peak ml

Temperature (Centigrade) H₂O _____ Density H₂O _____

Residual Volume: Male (VC x .24) = ml Female (VC x .28) = ml

Water Weight: Repeat the measurement process to achieve

1. Progressively heavier weight
2. Progressively less scale deviation
3. Increasing subject comfort
4. < 50 grams scale deviation

Measure 10
record heavier 6

1 2 3 4 5 6

Peak value of 1- 6 above MINUS Apparatus Value = Water Weight

Bd = $\frac{Wa}{(Wa - Ww/ DW) - (RV \div 100)}$ = Body Density → %BF = $(457 / Bd) - 414.2$ = % Body Fat

Evaluator _____ Date ____/____/____

Notes: VC = Vital Capacity DW = Density of Water Wa = Weight in grams
 RV = Residual Volume Bd = Body Density ml =
 Millimeter Ww = Weight under Water Kg = Kilograms

Scan completed form to: OSAA, Kelly Foster, Assistant Executive Director, kellyf@osaa.org

Reconciliation Entry Procedures

All reconciliation forms will be processed using an “online” entry system hosted on the OSAA website. It is required that all assessment reconciliations be entered using this method. You are required to create an OSAA account or use an existing account in order to access the online form.

Step by step instructions registration instructions:

1. Go to www.osaa.org/account
2. Locate and click the “Login” link in the light blue bar at the top of the screen
3. Locate the “Register” option and select the “Register for a new account”
4. Create an account by filling in the required information
5. CHECK THE BOX that says “I do not have a key code right now. Create my account and I'll enter the code later” and submit
6. You will be redirected to the “Add a school or new role” page. Scroll to the bottom of the page and you should see the Wrestling BIA Assessor button – select it.
7. You will be redirected to a new screen that will require you to provide your mailing address, and phone number, and KEY CODE – Enter OSAA2014BIA in this field.
8. You now have established a BIA Assessor account with the OSAA and will be redirected to a screen that will allow you to enter a NEW BIA Reconciliation using the button located on the left side of the screen. The system will keep track of exactly what you have entered and when so that you have a record of your work.
9. Close your browser and return to www.osaa.org – depending on your browser settings you may have to re-login or you may see “My Account” – click the My Account link at the top of the page and you should see you BIA Reconciliation tab and be ready to enter the information.

Assessment Entry Procedure

The data collected through assessment will be entered into the National Wrestling Coaches Association Optimal Performance Calculator. This automated program represents six exhaustive years of trial and error development to finally provide a user-friendly means to make all necessary calculations in just minutes. Additionally, this program ensures the integrity of a mandated program in that all forms are uniform and calculated consistently without error.

Assessor Instructions for the NWCA OPC powered by TrackWrestling Program powered by TrackWrestling

1. Log in to <http://www.trackwrestling.com> with your username and password assigned by the OSAA.
2. Click "Manage" from the menu and then click "Season Teams" and you will be redirected to a login screen
3. Click the "High School Boys" or "High School Girls"
4. Click on the team you want to enter assessments for
5. If you are adding to an existing transaction click on it and skip to step 5. Otherwise, click the [Add Transaction] button to create a new transaction.
6. Select your name from the assessors list, enter the hydration tester if prompted and select 'Live' for the transaction mode. Click the [Add] button to be taken to the transaction.
7. Click the [Add Assessment] button
8. Select the wrestler from the drop down menu. If the wrestler is not in the list and there is a [New] button available next to the drop box, then use the [New] button to add or import them to the roster. Otherwise wrestlers will need to be added from the 'Roster' page.
9. Check/edit the assessment date and answer the 'Passed Hydration' question or enter the 'Specific Gravity' value. Click the [Next] button.
10. Select a measurement type if prompted and click [Next].
11. Enter the measurement data and click the [Next] button. The data required on this page may vary.
12. Review the assessment results. The results displayed may vary.
13. **If you are entering assessments for another wrestler:** Click the [Next Wrestler] button. **If you are done adding assessments:** Click the [Finish] button.

****NOTE 1** - Some of the steps in this process will vary slightly.**

****NOTE 2** - If you are adding an appeal the process will be the same. The system will detect and identify the assessment as an appeal.**



OSAA BIA Data Form

Wrestler Name: _____ Grade: 9 10 11 12
First MI Last

Gender: _____ Male _____ Female

School: _____ Classification: 1A 2A 3A 4A 5A 6A

Location of Assessment: _____ Date: ___/___/___

Type of Assessment: _____ Initial Assessment _____ Appealed Assessment (check weight at initial assessment)

Failed Hydration Repeat - 2nd 3rd 4th

OSAA Assessor _____

Step 1 – Assess hydration level of athlete
 (Note: Specific gravity must be < 1.025)

Assessor _____



PASS

FAIL

Step 2 – Assess height (in feet and inches) of athlete

Assessor _____



Step 3 – Bioelectrical Impedance Assessment

Note: Approved equipment: Tanita TBF-300WA/WAplus (Standard Mode), Tanita TBF-400WA or InBody 120/570

Record scratch weight at initial assessment


 Lbs

STAPLE ASSESSMENT PRINT-OUT HERE

Calculated Body Fat


 %

Note: The Oregon Wrestling Weight Monitoring Program requires a Physicians Release Form for any wrestler assessed below 7% body fat for males and 12% body fat for females. The assessor shall provide the wrestler with the form at the time of assessment.

Oregon Wrestling Weight Monitoring Program

BIA Assessment Waiver

- This form shall be completed for any wrestler unable to participate in the hydration and/or body fat assessment procedures outlined in the Oregon Wrestling Weight Monitoring Program.
- If granted, the wrestler will be required to complete a hydration and/or body fat assessment using the approved assessor and alternative method assigned by the OSAA.
- A wrestler may not compete until a body fat assessment is completed and their name appears on the schools Alpha Master roster.

Submit the completed form to: Kelly Foster, Assistant Executive Director kellyf@osaa.org

Complete all information:

Name: _____ Date: _____

School: _____ Date of initial assessment: _____

Parent(s) Name: _____ Contact Number: _____

Answer all applicable questions and provide documentation if necessary: (Use additional sheets if needed)

1. Which component of the requirements are you requesting to have waived?

Hydration Assessment Scale BIA Assessment Both

2. Why are you requesting the waiver? What is the limiting medical condition or diagnosis that prohibits your participation in the assessment procedures outlined in the policy?

3. Are you under the care of a physician? If so, what is the physician's name and contact information?

4. Are there any other related factors that you would like to have considered?

Office Use Only:

Form was submitted on: _____ Date: _____

Contact made with the physician on: _____ Name: _____ Date: _____

Brief description of conversation with physician:

Status of Waiver:

- Waiver Granted Waiver Denied Pending Information

Alternative assessment assigned:

- Hydrostatic Tank BOD POD Skin Caliper

Hydration assessment waived:

- Yes No

Assigned Facility: