

**BODY COMPOSITION  
ASSESSMENT PROGRAM  
FOR HIGH SCHOOL  
WRESTLERS, 2013-14**

**INFORMATION PACKET  
FOR ASSESSORS**



**IOWA HIGH SCHOOL  
ATHLETIC ASSOCIATION**

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION**

This packet contains complete information for **assessors** regarding the 2013-14 body composition assessment program for high school wrestlers. The rule, process, and all necessary forms are contained in this packet.

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# IHSAA BODY COMPOSITION ASSESSMENT RULE, 2013-14

## WEIGHT MANAGEMENT PHILOSOPHY

The Iowa High School Athletic Association believes one of the primary factors in promoting proper weight maintenance among high school wrestlers is the development of a weight control program that encourages safe weight loss. Determining a formula to predict the safe, minimal wrestling weight of high school wrestlers has been a priority of the IHSAA since 1968. With such a formula established, the IHSAA began providing body composition assessment to every high school in Iowa with a wrestling program in 1987. The Board of Control of the Iowa High School Athletic Association implemented mandatory body composition assessment, effective with the 1998-99 wrestling season. The National Federation of State High School Associations (NFHS) wrestling rules now mandate hydration assessment, body composition assessment and the rate at which a wrestler may lose weight. The primary purpose for these rules is to provide a safe wrestling environment for all high school wrestlers.

The NFHS and IHSAA are NOT encouraging wrestlers to attain their minimum wrestling weight. Many wrestlers actually perform better while weighing more than their minimum wrestling weight. A wrestler's minimum wrestling weight may not be his optimal competitive weight. It is simply the lowest, safe weight at which a wrestler may compete.

## BODY COMPOSITION ASSESSMENT

1. All high school wrestlers (grades 9-12) must have their body composition assessed by an approved assessor **BEFORE THEIR FIRST COMPETITION**. **They must have had their body composition assessed and be entered into the NWCA on-line weight management system to be eligible to compete at any level. OFFICIAL BODY COMPOSITION ASSESSMENTS MAY BE CONDUCTED FROM OCTOBER 28, 2013 – FRIDAY, FEBRUARY 14, 2014.** Approved assessors may conduct unofficial assessments **BEFORE** the official assessment period begins, but assessments conducted by approved personnel ***after*** the official assessment period begins are official assessments.
2. **EACH WRESTLER IS ALLOWED ONLY ONE OFFICIAL BODY COMPOSITION ASSESSMENT**, unless the Athletic Association grants an appeal. Any subsequent assessments, except approved appeals, will NOT change a wrestler's minimum wrestling weight.
3. A list of approved body composition assessors can be found on the IHSAA website under the "Wrestling" heading. Assessors must 1) be approved by the

IHSAA, 2) follow the instructions provided by the IHSAA, and, 3) use one of the assessment methods approved by the IHSAA.

### **APPEALS**

**ONE APPEAL PER WRESTLER MAY BE PERFORMED WITH PRIOR APPROVAL FROM THE IOWA HIGH SCHOOL ATHLETIC ASSOCIATION. APPEALS PERFORMED WITHOUT PRIOR APPROVAL FROM THE IOWA HIGH SCHOOL ATHLETIC ASSOCIATION ARE NOT VALID.**

**THE WRESTLER, AND/OR SCHOOL, IS RESPONSIBLE FOR ANY & ALL COSTS RELATED TO THE APPEAL.**

**ALL APPEALS MUST BE CONDUCTED WITHIN 14 DAYS OF THE SCHOOL RECEIVING THE ASSESSMENT RESULTS FROM THE ASSESSOR AND BEFORE A WRESTLER COMPETES AT ANY LEVEL.**

#### **APPEAL METHOD:**

**The wrestler must have the same body composition assessment agency perform the appeal that performed the original assessment and the same assessment method must be used.** The wrestler must pass the hydration assessment at the time the appeal is performed. Wrestlers may use their weight at the time of the original body composition assessment unless they have gained more than 1.5% of their body weight (rounded **UP** to the nearest whole pound) between the time of the original assessment and the appeal. If they have gained more than 1.5%, they must use their weight at the time of the appeal.

**Example: A wrestler weighs 137# at the time of the original assessment and chooses to appeal.  $137\# \times 1.5\% = 2.1\#$ , rounded up that is 3#. If he weighs 140#, or less, at the time of appeal, he can use his original weight at the appeal.**

**NOTE:** Before a wrestler decides to appeal they may, but are not required to, ask their body composition assessor to review the data related to the original assessment. If an error is detected, the assessor should contact the Iowa High School Athletic Association with the correction. Correcting an error does not constitute an appeal.

### **BODY COMPOSITION ASSESSMENT PROTOCOL**

1. It is the coaches' and athletic administrators' responsibility to make sure wrestlers follow the established assessment protocol. The Athletic Association

will provide the protocol for each assessment method to each wrestling school and assessor. When the assessment protocol is not followed, it is nearly impossible for an assessment to be accurate. This may place a wrestler's health in jeopardy and/or reduce their performance.

### **BODY COMPOSITION ASSESSMENT METHODS**

1. One of the following body composition assessment methods shall be used.
  - A. Tanita Professional Series Body Composition Analyzer/Scale  
Models: TBF-300A - using the "Standard Mode" only  
TBF-300WA - using the "Standard Mode" only
  - B. Futrex Near-Infrared Photo Spectrometry  
Models: 5000 A/WL & 5500 A/WL
  - C. Skin Calipers - Metal alloy calipers only
  - D. Hydrostatic (Underwater) Weighing
  - E. Bod Pod Air Displacement
  
2. The IHSAA will provide detailed instructions and protocol for all body composition assessment methods.

### **HYDRATION ASSESSMENT**

1. Hydration assessment must immediately precede body composition assessment. Any wrestler not passing the hydration assessment must wait a minimum of 24 hours before they can have their hydration level reassessed. Wrestlers cannot have their body composition assessed until they pass the hydration assessment.

### **HYDRATION ASSESSMENT METHODS**

1. One of the following hydration assessment methods shall be used.
  - A. Urine Color Chart - **primary method**
  - B. Reagent Litmus Strips - *secondary method*
  - C. Refractometer - *secondary method*
  
2. The IHSAA will provide detailed instructions and protocol for all hydration assessment methods.

### **NWCA OPTIMAL PERFORMANCE CALCULATOR (NWCA-OPC)**

1. Hydration and body composition assessment information must be entered into the NWCA Optimal Performance Calculator by the body composition assessor **BEFORE A WRESTLER CAN COMPETE AT ANY LEVEL.**
  
2. **The NWCA OPC will be used to monitor each wrestler's descent plan. The descent plan will determine which two weight classes a wrestler is**

**eligible to compete in each week without causing their descent plan to be recalculated.** As per NFHS rules, wrestlers may wrestle one weight class above the class for which they weigh-in without breaking certification.

### **MINIMUM WRESTLING WEIGHT**

1. The minimum wrestling weight for each wrestler will be determined by predicting a wrestler's weight at 7% body fat. *(12% for females)*

### **MINIMUM WRESTLING WEIGHT CLASS**

1. **A wrestler's minimum wrestling weight class CANNOT be less than their minimum wrestling weight as predicted by body composition assessment.**

A. If a wrestler's **minimum wrestling weight is between two weight classes**, the wrestler must certify, and wrestle, at, or above, the higher weight class.

B. If a wrestler's **minimum wrestling weight is exactly that of one of the weight classes**, the wrestler may certify, and wrestle, at, or above, that weight class.

C. A wrestler having less than 7%/12% body fat at the time of body composition assessment CANNOT certify, or wrestle, at a weight class less than their actual weight at the time of assessment, even with a physician's written release. If a wrestler's **percent body fat at the time of body composition assessment is BELOW 7% (12% for females) the wrestler shall** wrestle at their minimum wrestling weight class as determined by body composition assessment at 7%/12% body fat, or, if their sub-7% body fat weight is exactly that of one of the weight classes, the wrestler may wrestle at that weight providing they have a physician's written release stating they are naturally below 7%/12%.

## CERTIFYING MINIMUM WRESTLING WEIGHT CLASS

1. **Wrestlers must certify their minimum wrestling weight class (*certified weight class*), by making *\*scratch weight* in that weight class at least one time. (*\*Scratch weight must be actual scale weight WITHOUT the addition of any kind of scale allowance.*) If a coach enters an actual scale weight from a weigh-in into the NWCA Optimal Performance Calculator, the weigh-in counts as an official weigh-in and counts towards the wrestler's 17 date limitation.** Wrestlers must be eligible to compete before their coach allows them to weigh-in for any weigh-in. Wrestlers weighing in who are not eligible to compete will not be allowed to count the weigh-in as scratch weight and they, and their coach, will be subject to further sanctions by their school and the Athletic Association. **Wrestlers not certifying their minimum weight class before their first post-season competition must weigh-in at scratch weight for that competition. They will receive the growth allowance at all future weigh-ins.**

### GROWTH ALLOWANCE

1. **Wrestlers who have certified their minimum weight class before January 1 will receive the 2-pound growth allowance after January 1.** Wrestlers who have not certified their minimum weight class by January 1 will receive the growth allowance the first time they weigh-in after certifying. **The first time a wrestler uses the growth allowance they declare their certified weight class and their intent not to wrestle at a lower weight class. A wrestler CANNOT recertify at a weight class below their certified weight class, regardless of what weight class their body composition assessment and/or descent plan allows them to go.** *For example, a wrestler's body composition assessment will allow him to wrestle at the 132# weight class. He makes scratch weight at 138 pounds before January 1. Then in the first meet after January 1 uses the growth allowance to weigh-in for the 138# weight class. He cannot recertify at 132 pounds because he used the growth allowance for the first time at the 138# weight class and declared his intent NOT to wrestle below the 138# weight class.*

2. A wrestler CANNOT use the growth allowance to achieve a lower minimum wrestling weight class than his/her 7%/12% weight permits because the wrestler MUST make scratch weight one time at their minimum wrestling weight class before receiving the growth allowance.

### WEIGHT LOSS DESCENT PLAN

1. All wrestlers losing weight are limited to an average weight loss of 1.5% per week beginning the Monday of the week their body composition is assessed. The descent plan will be monitored as follows:

A. Before each weigh-in session, coaches must provide a Weight Management Reporting Form to the Administrator of Weigh-Ins, or their designee. This form will show the weight classes for which every wrestler is eligible to weigh in on that date without causing their descent plan to be recalculated.

B. **A wrestler is NOT eligible to wrestle at a weight class below the minimum weight class determined by their descent plan regardless of their actual weight. NFHS rules state, "A contestant shall not wrestle more than one weight class above that class for which the actual weight, at the time of weigh-in, qualifies the competitor."** *If a wrestler whose lowest eligible weight class for a given week according to the descent plan is 138 pounds weighs in for the 126# weight class, or less, the wrestler is not eligible to compete at any weight class in that meet because of NFHS rules.*

2. **A wrestler cannot weigh-in above their highest eligible weight class listed for a specific date without having his/her descent plan recalculated IMMEDIATELY (beginning at 12:01am the next day).** *For example, a wrestler's highest eligible weight class listed on the weight management form for a specific date is 138 pounds. If the wrestler weighs in excess of the 138 pound weight class their descent plan will be IMMEDIATELY (beginning at 12:01am the next day) recalculated by the NWCA OPC. They will not be able to compete again at 138 pounds, or below, until their descent plan allows them to.*

## **CONSEQUENCES FOR VIOLATIONS OF WEIGHT MANAGEMENT RULES**

1. **Any wrestler weighing in below their lowest eligible weight class for a given week according to their descent plan will forfeit all matches won at that meet.**
2. **The first time** a school's wrestler(s) compete below their lowest eligible weight class for a given week according to the descent plan, the school will receive a letter of reprimand from the Athletic Association. This letter will explain the consequences for future violations.
3. **The second time** a school's wrestler(s) weighs in below their lowest eligible weight class for a given week according to the descent plan, the wrestler(s) will forfeit all matches won at that meet and the coach and wrestler(s) will be suspended from competition for the next scheduled, or rescheduled date at that level of competition, which could include post-season competition.



4. **The third time** a school's wrestler(s) weighs in below their lowest eligible weight class for a given week according to the descent plan, the wrestler(s) will forfeit all matches won at that meet and the coach and wrestler(s) will be suspended from competition for the next FOUR (4) scheduled, or rescheduled dates at that level of competition, which could include post-season competition.
5. **The fourth time** a school's wrestler(s) weighs in below their lowest eligible weight class for a given week according to the descent plan, the wrestler(s) will forfeit all matches won at that meet and the school's wrestling program will be placed on probation and NOT be allowed to compete the remainder of the season, including post-season competition, with the head coach coaching.
6. Any other violations of the weight management program will result in sanction of the school's coach or wrestling program as determined by the IHSAA Board of Control.

# IHSAA MEDICAL RELEASE FOR WRESTLERS BELOW 7% BODY FAT

**THIS FORM MAY ONLY BE COMPLETED BY MEDICAL PROFESSIONALS WHO ARE PERMITTED BY IOWA LAW TO PERFORM PRE-PARTICIPATION ATHLETIC PHYSICALS: (Medical Doctor, MD; Doctor of Osteopathic Medicine, DO; Doctor of Chiropractic, DC; Physician's Assistant, PA; or Advanced Registered Nurse Practitioner, ARNP)**

This is the **ONLY** form accepted as a "MEDICAL RELEASE FOR WRESTLERS BELOW 7% BODY FAT." **A copy of this completed form must be mailed or faxed to the Iowa High School Athletic Association, PO Box 10, Boone, IA 50036 (515-432-2961), by the school for whom the wrestler competes, after the last signature is obtained.**

**Any wrestler whose body fat percentage at the time of body composition assessment is below 7% for males and 12% for females must obtain, in writing, a medical clearance stating the wrestler is naturally at this sub-7% or 12% body fat level, if he/she wants to wrestle at their natural weight. This release is valid for only one season and expires following the State Dual Team Tournament each year. A wrestler always has the option of wrestling at their weight predicted at 7%/12% body fat.**

**The sub-7% male, or sub-12% female, who receives this clearance may NOT wrestle at a weight class below his/her weight at the time of body composition assessment. Example: A wrestler weighing 110 pounds at the time of body composition assessment with less than 7% body fat may NOT wrestle below the 112-pound weight class.**

WRESTLER'S NAME: \_\_\_\_\_ GRADE: \_\_\_\_\_ SCHOOL: \_\_\_\_\_

## OFFICIAL BODY COMPOSITION ASSESSMENT VERIFICATION - STEP #1

DATE OF OFFICIAL BODY COMPOSITION ASSESSMENT: \_\_\_\_\_

ACTUAL WEIGHT AT OFFICIAL BODY COMPOSITION ASSESSMENT: \_\_\_\_\_ pounds.

PERCENT BODY FAT AT OFFICIAL BODY COMPOSITION ASSESSMENT: \_\_\_\_\_ percent.

**Signature of assessor & name of agency conducting the official body composition assessment** \_\_\_\_\_ **DATE** \_\_\_\_\_

## EXAMINING MEDICAL PROFESSIONAL'S EVALUATION INFORMATION - STEP #2

DATE OF MEDICAL PROFESSIONAL'S EVALUATION: \_\_\_\_\_ WEIGHT AT MEDICAL EVALUATION: \_\_\_\_\_

### LICENSED MEDICAL PROFESSIONAL'S APPROVAL (See top of form for approved medical personnel)

It is my medical opinion that the above-named wrestler is naturally below 7% (for males)/12% (for females) body fat and can compete in a safe and healthy manner at a weight class which may be below their weight predicted at 7%/12% body fat, but which is **NOT** below their actual body weight at the time their OFFICIAL body composition was assessment.

\_\_\_\_\_  
LICENSED MEDICAL PROFESSIONAL'S SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
LICENSED MEDICAL PROFESSIONAL'S NAME (typed or printed)

\_\_\_\_\_  
DESIGNATION (MD, DO, DC, PA, ARNP)

### ATHLETIC DIRECTOR/PRINCIPAL ACKNOWLEDGMENT

I acknowledge that the above named wrestler is permitted by his/her parent or guardian and the medical professional signing this form to compete at their natural weight that is below their 7%/12% weight as predicted by body composition assessment.

\_\_\_\_\_  
ATHLETIC DIRECTOR'S OR PRINCIPAL'S SIGNATURE

\_\_\_\_\_  
DATE

**- OVER PLEASE FOR ADDITIONAL MEDICAL INFORMATION -**

**TO THE MEDICAL PROFESSIONAL SIGNING THIS MEDICAL RELEASE:**  
*(Medical Doctor, MD; Doctor of Osteopathic Medicine, DO; Doctor of Chiropractic, DC; Physician's Assistant, PA; or Advanced Registered Nurse Practitioner, ARNP)*

National high school wrestling rules require a medical release for any wrestler whose body composition at the time of body composition assessment is less than 7% for males, or 12% for females, and who wishes to compete at a weight less than their weight predicted at 7%/12% body fat. **The wrestler named on this release form is requesting that he/she be allowed to wrestle at a weight that is less than his/her weight at 7%/12% body fat.** Most adolescents require a minimum of 7% body fat for males, or 12% body fat for females, to achieve optimal growth and development. However, some adolescents are naturally lean and develop normally at a lower percent body fat. **A wrestler with less than 7%/12% body fat CANNOT wrestle at a weight less than their actual weight at the time of the original body composition assessment.**

**Please evaluate this wrestler for normal growth and development, paying particular attention to weight fluctuations and his/her growth curve. Based on the wrestler's history and your exam determine if his/her present weight is compatible with normal growth and development.**

**By signing this release, you are indicating that, in your medical opinion, it is safe and healthy for this wrestler to compete at a weight which is below his/her weight at 7%/12% body fat, but is NOT less than his/her actual weight at the time of the original body composition assessment.**

Questions or comments about this release should be directed to Alan Beste, ATC, LAT, Assistant Executive Director, Iowa High School Athletic Association. 515-432-2011 or <abeste@iahsaa.org>.

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT PROTOCOL SHEET  
(BIO-ELECTRICAL IMPEDANCE ANALYSIS)**

**No male wrestler may certify at a weight class below his weight at 7% body fat!**

**No female wrestler may certify at a weight class below her weight at 12% body fat!**

*In order to receive accurate assessment results, it is imperative that wrestlers having their body composition assessed follow the guidelines listed below.* Certain factors can adversely affect the accuracy of body composition assessment on any given day. In order to control as many of those factors as possible, each wrestler to be assessed should be provided with the following information several days before the assessment and ***the coach is responsible for ensuring that each athlete follows this protocol.***

- 1) ***Exercising immediately prior to the assessment will yield completely inaccurate results. ATHLETES MUST NOT EXERCISE WITHIN EIGHT HOURS OF HAVING THE ASSESSMENT PERFORMED!***
- 2) ***Athletes must not eat a large meal within 4-6 hours of being assessed.***
- 3) Athletes should not fast within 3 days of having the assessment performed.
- 4) ***DO NOT COME TO THE ASSESSMENT DEHYDRATED!***
- 5) Wear a T-shirt and shorts to the assessment.

***ACCURATE RESULTS CANNOT BE OBTAINED IF THE ASSESSMENT IS PERFORMED IMMEDIATELY FOLLOWING A WORKOUT.***

***ACCURATE RESULTS CANNOT BE OBTAINED IF THE WRESTLER IS DEHYDRATED DURING THE ASSESSMENT. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!***

***FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.***

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT INSTRUCTIONS  
(BIOELECTRICAL IMPEDANCE ANALYSIS)**

**When assessing female wrestlers, assessment personnel should use the appropriate formula and/or procedures for females in order to obtain the most accurate results possible. No male wrestler may certify at a weight class below his weight at 7% body fat! No female wrestler may certify at a weight class below her weight at 12% body fat!**

**1) Tanita Professional Series Body Composition Analyzer/Scales**

**Model TBF-300A and TBF-300WA only**

- A) Be sure footpads on the scale are clean.**
- B) Have athletes step onto the scale with clean, bare feet.**
- C) Be sure athletes place their feet on the exact locations as indicated in the instructions for the machine.**

**USE THE FOLLOWING TESTING MODES!**

**TBF-300A - Use the Standard Mode**

**TBF-300WA - Use the Standard Mode**

***DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.***

***DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!***

***FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.***

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT PROTOCOL SHEET  
(BOD POD AIR DISPLACEMENT)**

**No male wrestler may certify at a weight class below his weight at 7% body fat!**

**No female wrestler may certify at a weight class below her weight at 12% body fat!**

*In order to receive accurate assessment results, it is imperative that wrestlers having their body composition assessed follow the guidelines listed below.* Certain factors can adversely affect the accuracy of body composition assessment on any given day. In order to control as many of those factors as possible, each wrestler to be assessed should be provided with the following information several days before the assessment and ***the coach is responsible for ensuring that each athlete follows this protocol.***

- 1) **DO NOT COME TO THE ASSESSMENT DEHYDRATED!**
- 2) Do not exercise immediately prior to having the assessment performed.

**DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.**

**DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!**

**FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.**

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT INSTRUCTIONS  
(BOD POD AIR DISPLACEMENT)**

**No male wrestler may certify at a weight class below his weight at 7% body fat!**

**No female wrestler may certify at a weight class below her weight at 12% body fat!**

**1) Materials needed:**

A) Equipment and materials may vary depending on the testing facility.

**2) Method:**

A) **Obtain an accurate weight at the time of the test.**

B) The method and formula for testing may vary depending on the testing facility.

**(Testing agencies are asked to forward a copy of the testing method and formula to the IHSAA along with their registration form.)**

***DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.***

***DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!***

***FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.***

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT PROTOCOL SHEET  
(HYDROSTATIC “UNDER WATER” WEIGHING)**

**No male wrestler may certify at a weight class below his weight at 7% body fat!**

**No female wrestler may certify at a weight class below her weight at 12% body fat!**

***In order to receive accurate assessment results, it is imperative that wrestlers having their body composition assessed follow the guidelines listed below.***

Certain factors can adversely affect the accuracy of body composition assessment on any given day. In order to control as many of those factors as possible, each wrestler to be assessed should be provided with the following information several days before the assessment and ***the coach is responsible for ensuring that each athlete follows this protocol.***

- 1) **Athletes must not eat for 3 hours prior to the assessment.** Eating foods causing gas, such as beans and cauliflower, is not recommended for 24 before the test.
- 2) **DO NOT COME TO THE ASSESSMENT DEHYDRATED!**
- 3) **Do not exercise immediately prior to having the assessment performed.**
- 4) **Athletes should have a bowel movement before the assessment, if possible.**
- 5) **Athletes must wear swim trunks or swim suit to the assessment.** (Girls should wear a two-piece swimsuit.)

***DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.***

***DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!***

***FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.***



**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT INSTRUCTIONS  
(HYDROSTATIC “UNDER WATER” WEIGHING)**

**No male wrestler may certify at a weight class below his weight at 7% body fat!**

**No female wrestler may certify at a weight class below her weight at 12% body fat!**

**1) Materials needed:**

A) Equipment and materials may vary depending on the testing facility.

**2) Method:**

A) **Obtain an accurate weight at the time of the test.**

B) The method and formula for testing may vary depending on the testing facility.

**(Testing agencies are asked to forward a copy of the testing method and formula to the IHSAA along with their registration form.)**

***DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.***

***DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!***

***FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.***

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT PROTOCOL SHEET  
(NEAR-INFRARED PHOTOSPECTROMETRY)**

**No male wrestler may certify at a weight class below his weight at 7% body fat!**

**No female wrestler may certify at a weight class below her weight at 12% body fat!**

*In order to receive accurate assessment results, it is imperative that wrestlers having their body composition assessed follow the guidelines listed below.* Certain factors can adversely affect the accuracy of body composition assessment on any given day. In order to control as many of those factors as possible, each wrestler to be assessed should be provided with the following information several days before the assessment and ***the coach is responsible for ensuring that each athlete follows this protocol.***

- 1) Wear a T-shirt and shorts to the assessment.
- 2) **DO NOT COME TO THE ASSESSMENT DEHYDRATED!**

**DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.**

**DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!**

**FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.**

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT INSTRUCTIONS  
(NEAR-INFRARED PHOTOSPECTROMETRY)**

When assessing female wrestlers, assessment personnel should use the appropriate formula and/or procedures for females in order to obtain the most accurate results possible. No male wrestler may certify at a weight class below his weight at 7% body fat! No female wrestler may certify at a weight class below her weight at 12% body fat!

**1) Materials needed:**

- A) Futrex 5000 A/WL OR 5500 A/WL
- B) Cloth or Vinyl Tape Measure
- C) Washable soft-tip marking pen

**2) Method:**

- A) **OBTAIN ACCURATE WEIGHT AT THE TIME OF THE ASSESSMENT.**
- B) **Obtain accurate height at the time of the assessment.**
- C) Measure ankle circumference and determine frame size using the following chart. The circumference is measured at the smallest part of the ankle, just above the ankle bones, with the tape pulled snug, but not tight.)

	<b>Small Frame</b>	<b>Medium Frame</b>	<b>Large Frame</b>
<b>MEN</b>	Less than 8"	8" - 9.25"	Greater than 9.25 "
<b>WOMEN</b>	Less than 7.5"	7.5" - 8.75"	Greater than 8.75"

**3) Measurement Sites:**

A) *Biceps* - To locate the site, the dominant arm should be bent slightly and relaxed with the palm facing up. Measure from the armpit to the center of the inside of the elbow. Divide that distance in half to find the center point of the biceps muscle. Place the light wand on the front of the biceps, perpendicular against the center point and press hard enough to make full contact with the skin. After the machine records the first reading, move the wand medially 1/4" and record that reading.

B) *Triceps* - To locate the site, the dominant arm should be bent slightly and relaxed with the palm facing up. Measure from the top of the shoulder (AC joint) to the tip of the elbow. Divide that distance in half to find the center point of the triceps muscle. Place the light wand on the back of the triceps, perpendicular against the center point and press hard enough to make full contact with the skin.

After the machine records the first reading, move the wand medially 1/4" and record that reading.

C) *Thigh* - To locate the site, the athlete should stand with their weight evenly distributed on both feet. Measure from the groin line to the top of the patella. Divide that distance in half to find the center point of the quadriceps muscle. Place the light wand on the front of the quadriceps of the dominant leg, perpendicular against the center point and press hard enough to make full contact with the skin. After the machine records the first reading, move the wand medially 1/4" and record that reading.

***DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.***

***DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!***

***FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.***

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT PROTOCOL SHEET  
(SKIN FOLDS)**

**No male wrestler may certify at a weight class below his weight at 7% body fat!**

**No female wrestler may certify at a weight class below her weight at 12% body fat!**

*In order to receive accurate assessment results, it is imperative that wrestlers having their body composition assessed follow the guidelines listed below.* Certain factors can adversely affect the accuracy of body composition assessment on any given day. In order to control as many of those factors as possible, each wrestler to be assessed should be provided with the following information several days before the assessment and ***the coach is responsible for ensuring that each athlete follows this protocol.***

- 1) **EXERCISING IMMEDIATELY PRIOR TO THE ASSESSMENT WILL YIELD COMPLETELY INACCURATE RESULTS** due to the increased volume of blood beneath the surface of the skin. **The athlete's skin should be dry, as sweating makes it very difficult to obtain accurate skinfolds.**
- 2) **DO NOT COME TO THE ASSESSMENT DEHYDRATED.**
- 3) Wear a T-shirt and shorts to the assessment.

**DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.**

**DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!**

**FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.**

**IOWA HIGH SCHOOL ATHLETIC ASSOCIATION  
WRESTLING BODY COMPOSITION ASSESSMENT PROGRAM  
ASSESSMENT INSTRUCTIONS  
(SKIN FOLDS)**

When assessing female wrestlers, assessment personnel should use the appropriate skinfold formula for females in order to obtain the most accurate results possible. No male wrestler may certify at a weight class below his weight at 7% body fat! No female wrestler may certify at a weight class below her weight at 12% body fat!

**1) Materials needed:**

- A) Skin fold Calipers (Harpenden, Lange, Holtain, Lafayette, or Jamar are preferred.) **(PLASTIC CALIPERS ARE NOT PERMITTED.)**
- B) Tape Measure
- C) Washable soft-tip marking pen

**2) Method:**

- A) **OBTAIN ACCURATE WEIGHT AT THE TIME OF THE TEST.**
- B) **LOCATE, MEASURE, AND MARK EACH OF THE SKIN FOLD SITES with the marking pen.**
- C) **Take a skin fold measurement at each site, in succession (moving from one site to the next).**
- D) **Take a second AND third skin fold measurement at each site, in succession, as the NWCA OPC requires ALL three measurements.**

**3) Measuring a skin fold**

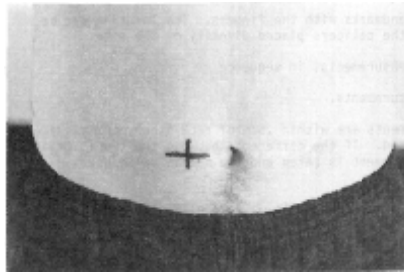
- a) Hold the caliper in the dominant hand while raising the skin fold with the thumb and index finger of the non-dominant hand.
- b) The skin fold should be grasped 1 centimeter above, or adjacent to, the site of the actual measurement. Hold the fold firmly, but not to the point of causing pain.
- c) Measure the skin fold midway between the surface of the skin and the crest of the fold. Release the caliper mechanism so the thumb, index finger, and caliper pads are supporting the fold.
- d) Leave the caliper pads in contact with the skin fold for 2-4 seconds. Longer periods of time may decrease the skin fold value due to decreasing fluid in the tissue.
- e) Position yourself so you are looking directly at the caliper dial.
- f) **Measure each site three (3) times, as all three (3) measurements are needed when entering information into the NWCA OPC.**

#### 4) Skinfold sites:

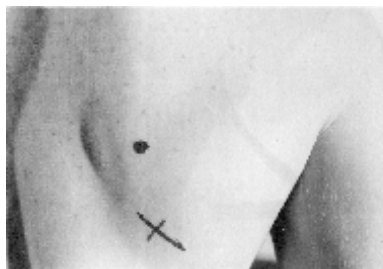
**(NOTES: a. All measurements are taken on the right side of the body while the athlete is standing. b. All measurements are taken three (3) times at each site, as all three (3) measurements are needed when entering information into the NWCA OPC.)**

**LOCATE, MEASURE, AND MARK EACH OF THE SKIN FOLD SITES WITH THE MARKING PEN. Visually sighting the location of the skin fold is not accurate.**

**Abdominal** - To locate the site, measure approximately 3 cm from the center of the umbilicus. The abdominal muscles should be relaxed and the athlete should stand with their weight evenly distributed on both feet. The athlete should not hold their breath. The skin fold is taken vertically. The measurement is recorded to the nearest 0.5 mm.



**Subscapular** (for males & females) - To locate the site, the right arm is bent and the back of the hand placed against the small of the back. The skin fold site is located 1 cm below the axillary border of the inferior angle of the scapula. To take the skin fold, the arm is relaxed and placed by the side. The skin fold is taken on a diagonal parallel to the axillary border of the scapula. (Upper portion closest to the spine.) The measurement is recorded to the nearest 0.5 mm.



**Triceps** (for males & females) - To locate the site, the right elbow is bent 90 degrees with the palm up. The skin fold site is measured as the midpoint between the acromioclavicular (AC) joint and the olecranon process of the elbow. To take the skin fold, the arm is relaxed and placed in an extended position with the palm forward. The vertical skin fold is taken on the back of the arm, parallel to its length. The measurement is recorded to the nearest 0.5 mm.



(The IHSAA has only approved the use of 3-site testing for males and 2-site skin fold testing for females.)

***DO NOT PERFORM THE ASSESSMENT IMMEDIATELY FOLLOWING A WORKOUT.***

***DO NOT PERFORM THE ASSESSMENT IF THE WRESTLER IS DEHYDRATED. WRESTLERS MUST COME TO THE ASSESSMENT WELL HYDRATED!***

***FOR ACCURATE ASSESSMENT RESULTS, WEIGHTS MUST BE ACCURATELY OBTAINED AT THE TIME THE ASSESSMENTS ARE PERFORMED.***



# IHSAA BODY COMPOSITION & HYDRATION ASSESSMENT DATA COLLECTION FORM

Wrestler's First and Last Name: \_\_\_\_\_

School: \_\_\_\_\_ Date: \_\_\_\_\_

Grade: \_\_\_\_\_ Gender: Male \_\_\_\_\_ Female \_\_\_\_\_

Weight: (**ROUND DOWN** to the nearest pound) \_\_\_\_\_ Height \_\_\_\_ \_\_\_\_ (feet) \_\_\_\_\_ (inches)

## HYDRATION ASSESSMENT

Pass \_\_\_\_\_ Fail \_\_\_\_\_ (*If the wrestler failed the hydration assessment DO NOT proceed to the body composition assessment.*)

## SKINFOLDS

Measurements: (to nearest 1/2 millimeter and enter **ALL THREE** trials)

	Trial 1	Trial 2	Trial 3
Triceps ( <i>male &amp; female</i> )	_____	_____	_____
Subscapular ( <i>male &amp; female</i> )	_____	_____	_____
Abdominal ( <i>male only</i> )	_____	_____	_____

## BOD POD, FUTREX, TANITA

Percent body fat: (**ROUND UP** to the nearest whole percent) \_\_\_\_\_%

This is NOT a mandatory form, but is provided for those assessors who wish to use it.

A data collection form is not provided for hydrostatic weighing as it is assumed assessors using this method will have their own data collection instrument.

# INSTRUCTIONS FOR CONDUCTING A BODY COMPOSITION ASSESSMENT APPEAL

- 1) Personnel from the same body composition assessment agency that performed the original assessment must perform the appeal and the same assessment method must be used. The person actually conducting the appeal may be different, but he/she must be from the same assessment agency.
- 2) Appeals can only be conducted after the assessor is presented a Request for Appeal form approved by the Athletic Association.
- 3) The date of the original assessment is used for the appeal so the wrestler's descent plan does not change.
- 4) The assessor will conduct the assessment and enter the information into the NWCA On-Line System. When entering the appeal information, the assessor must log on to the NWCA OPC and select the "High School Appeal Form". Then select the wrestler whose assessment is being appealed and enter the information using this form. The wrestler's name, school, grade, height and gender will be populated automatically. The assessor only enters the assessment information (date of the appeal, hydration assessment, weight, skin fold measurements or percent fat, electronic signature and date).
- 5) The wrestler must pass the hydration assessment at the time the appeal is performed or wait a minimum of 24 hours before returning to try again. If they do not pass the hydration assessment, the appeal stops at that point and no weight or measurements are taken.
- 6) A wrestler's weight at the time of the original body composition assessment (*which appears on the Request for Appeal Form*) will be used for the appeal UNLESS they have gained more than 1.5% of their body weight (*rounded UP to the nearest pound*) between the time of the original assessment and the appeal. If they have gained more than 1.5% of their original weight, they must use their weight at the time of the appeal. To determine if a wrestler has gained more than 1.5% body weight, multiply their weight at the time of the original assessment by 101.5% and round the weight gain **UP** to the nearest pound. If their weight is greater than this number, they must use their weight at the time of the original assessment for the appeal. *Example: A wrestler weighs 137# at the time of the original assessment and chooses to appeal.  $137\# \times 1.5\% = 2.1\#$ , rounded up that is 3#. If he weighs 140#, or less, at the time of appeal, he can use his original weight at the appeal.*
- 7) If a wrestler has lost weight between the time of the original assessment and the appeal, the weight at the time of the original assessment is used for the appeal. Wrestlers cannot lose weight for the appeal, as they are only appealing if their percent fat was accurately determined.

# INSTRUCTIONS FOR CONDUCTING WRESTLING HYDRATION ASSESSMENT USING THE IHSAA URINE COLOR CHART

**THIS IS THE PRIMARY METHOD OF HYDRATION ASSESSMENT.**

**HYDRATION ASSESSMENT MUST BE PERFORMED IMMEDIATELY BEFORE THE BODY COMPOSITION ASSESSMENT.**

- **IDENTIFY THE PERSON RESPONSIBLE FOR CONDUCTING THE HYDRATION ASSESSMENT.** This could be a school administrator or another person designated by the school administrator (school nurse, science teacher, PE teacher, etc.), or the assessor conducting the body composition tests. **It is NOT required that registered body composition assessors perform the hydration assessments.** (*WRESTLING COACHES MAY **NOT** BE INVOLVED IN THE HYDRATION, OR BODY COMPOSITION, ASSESSMENT PROCESS.*)
- Use only **CLEAR, PLASTIC CUPS** when collecting urine samples.
- Have each wrestler provide an adequate urine sample so there is approximately 1-2 inches of urine in the cup.
- **WHILE IT IS NOT NECESSARY TO OBSERVE THE WRESTLER ACTUALLY GIVING THE URINE SAMPLE, IT IS NECESSARY TO VERIFY THAT EACH WRESTLER IS PROVIDING HIS/HER OWN URINE SAMPLE.** These suggestions may be helpful:
  - < Closely monitor the area where wrestlers are providing the urine sample
  - < Allow only one wrestler to give a sample at a time
  - < Place blue sanitizer tablets in all stools and urinals
  - < Turn off water to sinks near collection area

- over please -

- **Have only the athlete giving the sample handle the cup containing their urine sample**, if possible. The person responsible for hydration assessment should always wear protective gloves in the rare event he or she will be touching cups containing another person's urine.
- Have the athlete **place the cup containing their urine sample on a WHITE sheet of paper and place the IHSAA Urine Color Chart next to the cup** to compare colors. If the color of the urine is in the **“WELL HYDRATED”** range of **1-5** on the chart the wrestler passes the hydration assessment. If not, he/she fails the hydration assessment using this method.

**GOOD LIGHTING IS ESSENTIAL TO GETTING ACCURATE RESULTS.**

- **IF A WRESTLER FAILS THE HYDRATION ASSESSMENT USING THE URINE COLOR CHART**, his/her urine sample may be assessed using a reagent (litmus) strip. **If the wrestler fails the hydration assessment using a litmus strip, or it is not available**, his/her urine sample may be assessed using a refractometer or he/she must wait a minimum of 24 hours before he can be reassessed. **If the wrestler fails the hydration assessment using a refractometer, or it is not available**, he/she has failed the hydration assessment and must wait a minimum of 24 hours before he/she can be reassessed.
- Have the wrestler discard his/her urine sample in a urinal, or toilet, NOT in the same location where other wrestlers are giving urine samples.
- Have the wrestler discard his/her collection cup in a trash bag that can be disposed of immediately after all assessments are concluded.
- Wrestlers who fail the hydration assessment should not be allowed into the area where body composition assessment is taking place. ***It may be a good idea to place a check mark on the back of the right hand of those passing the hydration assessment.***

# INSTRUCTIONS FOR PERFORMING WRESTLING HYDRATION ASSESSMENT USING REAGENT STRIPS FOR URINALYSIS (LITMUS STRIPS)

**THIS IS A SECONDARY METHOD OF HYDRATION ASSESSMENT. IT SHOULD ONLY BE USED IF A WRESTLER FAILS THE ASSESSMENT USING THE URINE COLOR CHART.**

**HYDRATION ASSESSMENT MUST BE PERFORMED IMMEDIATELY BEFORE BODY COMPOSITION ASSESSMENT.**

- **IDENTIFY THE PERSON RESPONSIBLE FOR CONDUCTING THE HYDRATION ASSESSMENTS.** This could be a school administrator or another person designated by the school administrator (school nurse, science teacher, PE teacher, etc.), or the assessor conducting the body composition tests. **It is NOT required that registered body composition assessors perform the hydration assessments.** *(WRESTLING COACHES MAY NOT BE INVOLVED IN THE HYDRATION, OR BODY COMPOSITION, ASSESSMENT PROCESS.)*
- Use only **CLEAR, PLASTIC CUPS** when collecting urine samples.
- Have each wrestler give an adequate urine sample so there is approximately 1-2 inches of urine in the cup.

- over please -

- **WHILE IT IS NOT NECESSARY TO OBSERVE THE WRESTLER ACTUALLY GIVING THE URINE SAMPLE, IT IS NECESSARY TO VERIFY THAT EACH WRESTLER IS PROVIDING HIS OWN URINE SAMPLE FOR TESTING.** These suggestions may be helpful:
- < Closely monitor the area where wrestlers are providing the urine sample
  - < Allow only one wrestler to give a sample at a time
  - < Place blue sanitizer tablets in all stools and urinals
  - < Turn off water to sinks near collection area
1. The person responsible for hydration assessment should always wear protective gloves when touching cups containing another person's urine.
  2. Have the person conducting the hydration assessment **dip the reagent (litmus) strip into the urine sample for 1-2 seconds**. When removing strips from urine, run the entire length of the strip against the rim of the collection cup to remove excess urine.
  3. **Hold the strip in a horizontal position for 40 seconds and "read" the strip at 45 seconds**. To "read" the strip, hold it close to, **BUT NOT TOUCHING**, the color blocks on the bottle and match the colors carefully. **A urine specific gravity of 1.025, or less, is a passing hydration level.**

**GOOD LIGHTING IS ESSENTIAL TO GETTING ACCURATE RESULTS.**

4. **If the wrestler fails the hydration assessment using a litmus strip, or it is not available**, his urine sample may be assessed using a refractometer. **If the wrestler fails the hydration assessment using a refractometer, or it is not available**, he has failed the hydration assessment and must wait a minimum of 24 hours before he can be reassessed.
5. Have the wrestler discard his urine sample in a urinal, or toilet, NOT in the same location where other wrestlers are giving urine samples.
6. Have the wrestler discard his collection cup in a trash bag that can be disposed of immediately after all assessments are concluded.
7. Wrestlers who fail the hydration assessment should not be allowed into the area where body composition assessment is taking place. ***It may be a good idea to place a check mark on the back of the right hand of those passing the hydration assessment.***

# INSTRUCTIONS FOR PERFORMING WRESTLING HYDRATION ASSESSMENT USING A REFRACTOMETER

**THIS IS A SECONDARY METHOD OF HYDRATION ASSESSMENT. IT SHOULD ONLY BE USED IF A WRESTLER FAILS THE ASSESSMENT USING THE URINE COLOR CHART AND LITMUS STRIP.**

**HYDRATION ASSESSMENT MUST BE PERFORMED IMMEDIATELY BEFORE BODY COMPOSITION ASSESSMENT.**

- **IDENTIFY THE PERSON RESPONSIBLE FOR CONDUCTING THE HYDRATION ASSESSMENT.** This could be a school administrator or another person designated by the school administrator (school nurse, science teacher, PE teacher, etc.), or the assessor conducting the body composition tests. **It is NOT required that registered body composition assessors perform the hydration assessments.** (*WRESTLING COACHES MAY NOT BE INVOLVED IN THE HYDRATION, OR BODY COMPOSITION, ASSESSMENT PROCESS.*)
- Use only **CLEAR, PLASTIC CUPS** when collecting urine samples.
- Have each wrestler give an adequate urine sample so there is approximately 1-2 inches of urine in the cup.
- Always wear protective gloves when touching cups containing another person's urine.

- over please -

- **WHILE IT IS NOT NECESSARY TO OBSERVE THE WRESTLER ACTUALLY GIVING THE URINE SAMPLE, IT IS NECESSARY TO VERIFY THAT EACH WRESTLER IS PROVIDING HIS OWN URINE SAMPLE FOR TESTING.** These suggestions may be helpful:
  - < Closely monitor the area where wrestlers are providing the urine sample
  - < Allow only one wrestler to give a sample at a time
  - < Place blue sanitizer tablets in all stools and urinals
  - < Turn off water to sinks near collection area
  
- **Have only the athlete giving the sample handle the cup containing their urine sample**, if possible. The person responsible for hydration assessment should always wear protective gloves in the rare event he or she will be touching cups containing another person's urine.
  
- Have the person conducting the hydration assessments perform them according the instructions received with the refractometer.
  
- **If the wrestler fails the hydration assessment using a refractometer, or it is not available AFTER failing the assessment using a litmus strip**, he has failed the hydration assessment and must wait a minimum of 24 hours before he can be reassessed.
  
- Have the wrestler discard his urine sample in a urinal, or toilet, NOT in the same location where other wrestlers are giving urine samples.
  
- Have the wrestler discard his collection cup in a trash bag that can be disposed of immediately after all assessments are concluded.
  
- Wrestlers who fail the hydration assessment should not be allowed into the area where body composition assessment is taking place. ***It may be a good idea to place a check mark on the back of the right hand of those passing the hydration assessment.***



# SCHOOL RESPONSIBILITIES FOR THE HYDRATION ASSESSMENT PROCESS

- Plastic urine collection cups
- IHSAA Urine Color Chart - IHSAA provides this chart to each school and body composition assessor
- White** paper to set urine collection cups on while verifying hydration status
- Personnel for assessing each wrestler's hydration status
- Personnel to verify each wrestler is providing a valid urine sample (*Wrestling coaches may **NOT** be involved in any part of the hydration, or body composition assessment, process.*)

***The body composition assessor may be the person designated as responsible for determining hydration status, and providing the supplies needed for assessing, but it should NOT automatically be assumed they will do so. It is reasonable for the body composition assessor to charge a fee for providing the supplies needed for hydration assessment.***

The following information is provided for those schools, or assessors, wishing to use the litmus test as a secondary hydration assessment method.

- Reagent strips for urinalysis (***litmus strips to assess urine specific gravity / hydration status***) - (i.e. Multistix 8SG, 10SG, Reagent Strips for Urinalysis (*or similar litmus strips for assessing urine specific gravity / hydration status*) **or** UriDynamics, Inc. Hydra Trend Test Strips for Specific Gravity and pH in Urine **or** equivalent)

**Contact information:**

**Hydra Trend Test Strips for Specific Gravity and pH in Urine** are available from UriDynamics, Inc.; 6786 Hawthorn Park Drive; Indianapolis, IN 46220. (866) 748-7463 <[www.uridynamics.com](http://www.uridynamics.com)> The cost is approximately \$30 for 50 strips.

**Multistix Reagent Strips for Urinalysis** (*or similar litmus strips for assessing urine specific gravity / hydration status*) are available at most drug stores. The cost is approximately \$90 for 100 strips.

# TIPS FOR PASSING THE WRESTLING HYDRATION ASSESSMENT

Following these tips will help wrestlers pass the hydration assessment and give the most favorable body composition assessment results.

## **Two days before hydration and body composition assessment:**

- **DRINK AT LEAST 8-10, 8-OUNCE GLASSES OF FLUIDS DURING THE DAY.** (Remember, water has no calories.)
- Drink an additional 16-24 ounces of water for each pound you may have lost that day during a sport practice.
- Avoid drinks containing caffeine, such as iced tea, caffeinated pop, & coffee.
- Increase the intake of high fiber foods to help eliminate excess waste from the body. (Whole grain breads, muffins & cereals, fresh fruits, salad, vegetables)
- Eat smaller, more frequent meals.
- AVOID foods high in fat. (Fried foods, fatty meats, french fries, pizza, nuts, regular salad dressings)
- AVOID salty foods. (Potato chips, pretzels, pizza, tuna, crackers, soft drinks, sports drinks)
- Discontinue the use of vitamins, and other supplements, unless prescribed by your doctor, as they may cause the urine to be darker than normal.

## **One day before hydration and body composition assessment:**

- **CONTINUE DRINKING PLENTY OF WATER.** You should be urinating several times during the day and your urine should be clear, if you are fully hydrated.
- Continue to avoid vitamins, and other supplements, unless prescribed by your doctor.
- Drink an additional 16-24 ounces of water for each pound you may have lost that day during a sport practice.
- Avoid drinks containing caffeine, such as iced tea, caffeinated pop, & coffee.
- Avoid eating foods high in chocolate.
- Continue eating smaller meals, more frequently meals.
- Continue to eat foods high in fiber.
- **CONTINUE TO AVOID FOODS HIGH IN FAT AND SALT!**

## **The day of hydration and body composition assessment:**

Continue to avoid vitamins, and other supplements, unless prescribed by your doctor.

***Early morning assessment:***

- **DO NOT EXERCISE BEFORE THE ASSESSMENT!**
- **DO NOT DRINK LARGE AMOUNTS OF WATER** IN ORDER TO BECOME HYDRATED AS IT MAY ADVERSELY EFFECT YOUR HYDRATION ASSESSMENT AND WILL ALMOST CERTAINLY CAUSE UNWANTED WEIGHT GAIN!
- **DRINK A GLASS OF WATER WHEN YOU FIRST GET OUT OF BED.**
- Do NOT urinate until you get the test site and so you can provide a urine sample.
- Do NOT eat until after the assessment.

***Late morning, or afternoon, assessment:***

- **DO NOT EXERCISE BEFORE THE ASSESSMENT!**
- **CONTINUE TO DRINK NORMAL AMOUNTS OF WATER THROUGHOUT THE DAY.**
- **DO NOT DRINK LARGE AMOUNTS OF WATER IMMEDIATELY BEFORE THE ASSESSMENT** IN ORDER TO BECOME HYDRATED AS IT MAY ADVERSELY EFFECT YOUR HYDRATION ASSESSMENT AND WILL ALMOST CERTAINLY CAUSE UNWANTED WEIGHT GAIN!
- Urinate several times during the day until 1-2 hours before the assessment.
- Eat small portions and eat lighter foods. (Fruits, cereals, juices)
- **DO NOT EAT** fatty or salty foods.
- **DO NOT DRINK** salty drinks, such as pop & sports drinks.
- **DO NOT EAT** within several hours of the assessment.