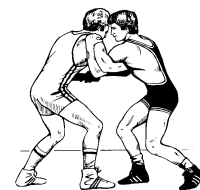




## Wisconsin Interscholastic Athletic Association

### Wrestling Minimum Weight Program – Hydration Testing –



**Attn: Athletic Directors and Hydration Test Administrators**

Testing to determine a wrestler's hydration status as part of a minimum competitive weight certification process has been increasingly embraced by the sports medicine community, as well as sport governing bodies (NFHS, NCAA), coaches and various other athletic associations in recent years.

In part, due to the physical developmental stage of adolescent wrestlers, along with both the immediate and life-long benefits of healthful nutrition habits, hydration testing is a key component in helping wrestlers, parents, coaches and administrators determine a safe and healthy minimum weight for high school wrestlers.

Please read the Wrestling Season Regulations, included in the WIAA Winter Season Regulations booklet (pages 41-47) for more complete information on WIAA wrestling rules.

### TESTING HYDRATION STATUS

NOTE: Hydration testing **MUST** be done immediately prior to the actual taking of skinfold measurements and **at the same site where the measurements will be taken.**

Dehydration will concentrate urine and thereby increase the urine's specific gravity. Accurate determination of minimum wrestling weight from skinfolds, requires the wrestler to be properly hydrated. The specific gravity of water is 1.000. The specific gravity of a hydrated individual will be 1.020 or lower. If the wrestler is dehydrated (i.e., specific gravity of the urine is over 1.020), skinfold measurements are **NOT** to be taken. Testing must be rescheduled for a different time when the wrestler is properly hydrated. **NO SOONER THAN 48 HOURS.**

### OBTAINING A SECURE URINE SAMPLE

It is a priority to assure an appropriate urine sample has been collected the following procedures are required.

**AREA** – A bathroom with toilet or urinal can be used by the wrestler to provide the urine sample. The determination of specific gravity can be completed in another area, but a means of appropriate disposal of the urine must be available.

**SAFETY** – Use gloves when measuring the urine and appropriately dispose of the urine in toilet. Place cup in hazard collection system.

**COLLECTION CONTAINER** – Paper cups of sufficient size to provide a 20-30 ml urine sample can be used by the wrestler to collect the sample.

**COLLECTING THE URINE SAMPLE** – School personnel must insure that the wrestler has provided a sample of their own urine. **Reasonable supervision is key.** Normally one to three wrestlers can be supervised at one time in an open area. After collection of the urine by the wrestler, personnel should insure that the urine is warm by feel in the collection container. If the urine is cold, reject that sample and require the wrestler to provide another sample under close supervision.

To further insure a secure sample is collected water faucets may be shut off. Blue or red dye may be added to toilet bowls.

### VOLUNTEERS TO DO THE TESTING

1. **Make arrangements for extra help** to facilitate this process.
2. It is recommended this person be a nurse, medical technician, athletic trainer, or person with similar training. Your school nurse or a biology or health teacher can also do these tests.
3. Coaches are not to do these tests.
4. Skinfold measures **MAY** agree to test one or two athletes on a follow-up visit to your school or if an athlete goes to a clinic to be measured. Skinfold measurers are **NOT** to be expected to do hydration testing of your entire squad.

### TESTING THE SAMPLE

It is acceptable to use either Reagent Strips, a Refractometer or Hydrometer for testing purposes. Which ever instrument is chosen, **carefully follow directions** for its use, to insure an accurate reading.

NOTE: A Refractometer must be accurately calibrated prior to use.

## USING REAGENT STRIPS

Purchase sufficient multistix strips to conduct the specific gravity urine test.

- A. The AMES, Multistix 10SG Reagent Strips for Urinalysis is one strip that can be used. However, any urine dip stick for testing urine specific gravity may be used. Your local hospital or clinic can give you a source. One source we know you can order them from is Shoreline Sport Medicine Supply, Inc., 2615 Segwun Ave., Lowell, MI 49331, (616) 897-6505, or FAX (616) 897-5361 to FAX a purchase order. Orders may also be placed online at [www.shorelinesms.com](http://www.shorelinesms.com). Strips are available in bottles of 100.
- B. You may contact a local physician's office for the name of a supplier in your area. Some physicians may be willing to donate enough strips for your team.
- C. Multistix strips do have a shelf life, check the expiration date printed on the container. (If given to athletes for experimentation they must be kept in a clean, sealed container.)
- D. Order your strips early so you are certain to have them by the time you plan to have measurements done.

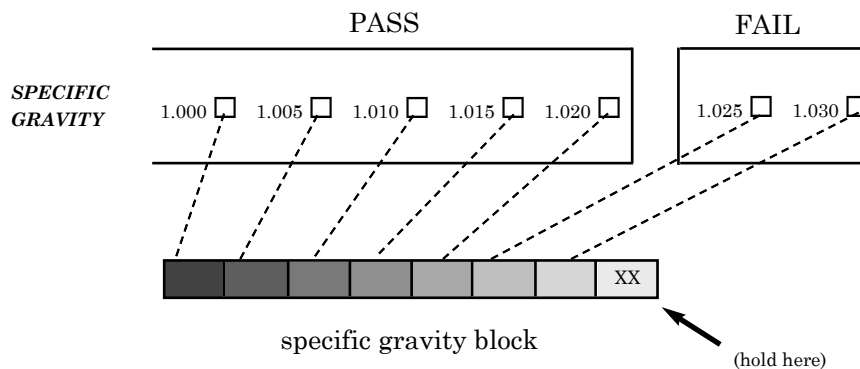
\*Mix urine well in cup by swirling urine.

\*Remove one strip from bottle and replace cap. Completely immerse Reagent areas of the strip in FRESH urine and **remove immediately** to avoid dissolving reagent. All unused strips must remain in the original bottle. Do not remove strips from the bottle until immediately before the strip is to be used for testing. Immediately replace the bottle's cap and tighten after removing the reagent strip.

\*While removing the strip from the urine, run the edge of the strip against the rim of the container to remove excess urine. **For 45 seconds hold the strip in a horizontal position to prevent mixing of the chemicals.** (Do not leave stick in urine 45 seconds. Dip & remove immediately.)

\*Visually compare reagent area to the specific gravity color chart on the bottle's label by holding strip close to color blocks. Avoid laying strips directly on color chart as this will result in urine soiling the chart.

\*Discard urine in urinal or toilet and cup in an appropriate receptacle.



If the wrestler passes the test darken the PASS box on the scantron form (only after they have printed their name on the form and filled in the appropriate bubbles). **Sign your name on the line provided (top right corner of form)**. This will be required by the skinfold measurer before skinfold measurements will be taken.

If the wrestler fails the test, they will have to be retested at a later date. The wrestler is required to wait a minimum of 48 hours before retesting.

**NOTE:** Urine testing should be completed within one hour after voiding. If testing cannot be completed within one hour another sample must be taken.