Maine Principals' Association

Weight Management Program

MPA
Weight Management
Committee

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WRESTLING WEIGHT ISSUES

- **LOSE TOO MUCH**
- **LOSE TOO FAST**
- **CYCLE WITH BINGE AND STARVE AND DEHYDRATE EACH WEEK FOR MATCH**
- **USE UNHEALTHY PRACTICES TO LOSE WEIGHT**

WEIGHT LOSS IN WRESTLING

- **85-93% Wrestlers admit to using unhealthy weight loss practices**
- **AVERAGE weight loss/ week = 5-8#**
- **Studies from 1950's to present show same results**
- **1998 3 collegiate wrestlers died**

WHY WRESTLERS LOSE WEIGHT

- **BETTER CHANCE TO MAKE THE TEAM IF FILL NEEDED SPOT**
- **OTHER WRESTLERS AT “NATURAL WEIGHT” THEY CAN’T BEAT**
- **MYTH THAT BIGGER AND LIGHTER GIVES BETTER LEVERAGE**
- **CRITICAL PART OF BEING TOUGH**
- **ALWAYS PART OF THE CULTURE**

PHYSIOLOGIC TYPES OF WEIGHT LOSS

-MUSCLE

- Starvation
- Counter-productive for wrestler

-WATER

- All rapid weight loss
- Dehydration is hazardous

-FAT

- Only desirable form of weight loss

HARM FROM CYCLING, STARVATION AND DEHYDRATION

- Decrease in athletic performance
  -Lowered Testosterone Level
  -Decreased strength and endurance

- Decrease in Bodily Functions
  -Decreased Growth
  -Decreased Temperature Control Mechanisms
  -Increased Susceptibility to Infection
  -Decreased glycogen stores

- Decrease in academic performance

- Increased incidence of disordered eating

DEATH!!

Pilot 2004-05

20 Schools

Assessor Training

Alpha Weigh-in Goals

- The establishment of a minimum wrestling weight class based on 7% body fat for males and 12% body fat for females.
- Hydration level of 1.025
- Weight loss no greater than 1.5% per week of the athlete's body weight.

FUNDAMENTALS OF ANY WEIGHT MANAGEMENT PROGRAM

- **Determine MINIMUM weight at which wrestler can safely compete**
- **Develop a time table for reaching that weight based on maximum amount of safe weight loss per week**
- **Develop rules that support the program and minimize opportunities for wrestlers to utilize unhealthy weight loss practices**

“Alpha” Weigh-in

Process with Certified Assessor

1. **Pass hydration test**
2. **Determine weight**
3. **Skinfold measurments**

Assessment of Hydration

- Two methods commonly used to assess urine specific gravity (Usg) are: 1) reagent test strips and 2) refractometer.

- Refractometry is considered the gold standard and reagent strips are an acceptable alternative in most state associations.

- The average cost of a refractometer is around $150 - $200 and reagent strips average about $20 for a package of 100.

Step 1 – Assessment of Hydration Instruments

Refractometer

Urine Test Strips

Assessment of Hydration Status

- If a wrestler has a urine specific gravity above 1.025, they should not be allowed to undergo the body composition assessment.

- If a wrestler fails the hydration test they should not be assessed again for 48 hours (they are still bound to the weekly 1.5% rule when being retested).

- In preparation for the hydration test, the athletes should be instructed to consume 2-4 cups of water in 1-2 hour period immediately preceding the test.

Weight Certification Preparation Guidelines

- No vigorous activity on the evening before and the day of the testing.
- Avoid any caffeinated beverages on the day before and day of the testing.
- On the day of testing, drink 500ml (17 oz.) of fluid. (A sports drink is an excellent choice).

- Avoid any vitamin or mineral supplements two days before and the day of testing.
- Be awake three hours prior to testing.
- Do not eat two hours prior to testing.

Weight

- certified scales
- balance scales – round-up to nearest ¼ pound
- digital scales – round-up to nearest 1/10 pound

Skinfold

- **Registered assessor**
- **Calipers**
  - **Lange**
  - **Harpenden**
- **Males-triceps, subscapular, abdominal**
- **Females-triceps, subscapular**
- **3 measurements at each site**

Data Entry

- by assessor
- automatic calculator

APPENDIX E

Maine Principals' Association
Wrestling Minimum Weight Program
INDIVIDUAL CERTIFICATION FORM

Name: _____ Male or Female (Circle)
Last First

School: _____ Grade: _____

Desired Weight Class: _____

DATA

URINALYSIS: Specific Gravity _____ Pass or Fail (Circle)

Assessor: _____

WEIGH-IN: Weight _____

Assessor: _____

SKINFOLD ASSESSMENT:

				Average
Triceps	_____	_____	_____	_____
Subscapular	_____	_____	_____	_____
Abdomen	_____	_____	_____	_____
			Sum:	_____

MINIMUM WEIGHT CLASS PER CALCULATOR: _____

MPA Certified Assessor: _____

“Skinny” Wrestlers

- Those naturally below 7% (12%)
- Physician clearance

Appeals

- repeat process within 14 days
- hydrostatic weighing
  - USM
  - UMO
- school/athlete bears cost
- results are final

Maine Principals' Association

PHYSICIAN'S CLEARANCE FORM
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 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 wrestle below his/her initial assessment scratch weight.

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

SCHOOL: _____ CLASS: A B C

DATA REVIEW: Date of initial assessment ____/____/____ Body fat % _____

Initial assessment alpha weight _____ lbs.

EXAMINING PHYSICIAN:
ENTER DATA BELOW AT TIME OF ATHLETE'S EVALUATION

Date ____/____/____ Weight _____ lbs.

CIRCLE "A" OR "B"

A. The wrestler named has received clearance as provided by the Maine Principals' Association Wrestling Management Program, Part IV., to participate at a wrestling weight not lower than his/her weight at the time of initial assessment, which is below the 7% (male) or 12% (female) minimum body fat allowance.
EXAMPLE: *Alpha weight 110 pounds: 7% weight 114 pounds. Wrestler may wrestle no lower than the 112 pound weight class.*

B. The wrestler named is advised to wrestle at a weight which meets or exceeds the 7% or 12% body fat minimum requirement. The wrestler named has been given permission to participate at a weight not lower than the National Federation weight classification circled which cannot be less than the alpha weight listed on the MPA Weight Management Form. This permission is valid from November through March 15 of the current school year.

103 – 112 – 119 – 125 – 130 – 135 – 140 – 145 – 152 – 160 – 171 – 189 – 215 – 275

PHYSICIAN'S
SIGNATURE: _____ DATE: _____

ADDRESS: _____ CITY:_____ ZIP: _____

PARENT SIGNATURE: _____ DATE: _____

PARENT SIGNATURE: _____ DATE: _____

NOTE: This form is the only document accepted as a "Physician's Clearance." Copies of this form shall be attached to your Alpha Master and provided to opponent coaches and included with State Championship qualifying event entry materials.

Fax a copy of this form to the MPA at 622-1513.

APPENDIX A

The MPA recognizes that weight cycling (repeated rapid weight loss followed by rapid weight gain) is detrimental to both wrestler's health and performance. The MPA suggests that schools and coaches take efforts to limit weight cycling.

Schools may implement a rule:

Wrestlers will weigh in at all practice sessions. Once certification weight is attained, a wrestler may not wrestle in a weight class which requires weight loss greater than 1.5% of body weight in the week prior to competition. See table below.

Maximum Allowable Weight
1 Week Prior to Competition

Weight Class	Max Weight 1 Week Prior to Weigh-in
103	104.6
112	113.7
119	120.8
125	126.9
130	132.0
135	137.1
140	142.1
145	147.2
152	154.3
160	162.4
171	173.6
189	191.9
215	218.3
275	279.2

APPENDIX D

HYDROSTATIC WEIGHING PROPOSAL

(Step 1)

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 _____ School ID# _____

Hydrostatic Weighing Facility _____

Technician Conducting the Weighing _____

Home Phone _____ Work Phone _____

We understand that the results of the hydrostatic weighing will replace all previous skinfold 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 ___/___/___

Coach's Signature _____ Date ___/___/___

AD Signature _____ Date ___/___/___

Submit this completed form to the MPA, P.O. Box 2468, Augusta, ME 04438-2468 (Fax 207-622-1513) prior to the hydrostatic weighing. Weighing can take place once this form has been signed by the MPA and returned to the school. The Hydrostatic Weighing Report Form shall be completed by the technician who will forward it to the MPA.

MPA Approval is Required Before Hydrostatic Weighing May Be Conducted.

☐ Approval is granted to conduct the hydrostatic weighing as proposed.

☐ Approval is denied.

MPA Signature _____ Date ___/___/___

Wrestler shall not compete until MPA approval of hydrostatic results is received by the school.

HYDROSTATIC WEIGHING REPORT FORM

(Step 2)

Note: 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 MPA 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: [ ] lbs. ÷ 2.2 = [ ] X 1,000 = [ ]

VITAL CAPACITY: (Repeat three (3) times. Record peak/highest value.)

a.) _____ ml. b.) _____ ml. c.) _____ ml. → Peak [ ] ml.

Temperature (Centigrade) H_2O _____ Density H_2O _____

Residual Volume: Male (VC X .24) = [ ] Female (VC X .28) = [ ]

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 6HHH

1. [ ] 2. [ ] 3. [ ] 4. [ ] 5. [ ] 6. [ ]

PEAK VALUE OF 1-6 ABOVE [ ] MINUS APPARATUS VALUE [ ] = WATER WEIGHT [ ]

Wa

Bd = _____ = BODY DENSITY [ ] → %BF = (457 / Bd) – 414.2 = % BODY FAT [ ]

(Wa – Ww / DW) – (RV ÷ 100)

Evaluator _____ Phone _____

Hydrostatic Weight Facility _____ Phone _____

Address _____ City _____ Zip _____

_____
Evaluator Signature

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

Fax to: MPA, Attention: Jeff Sturgis 207-622-1513

APPENDIX H
FORMULA FOR CALCULATION OF BODY COMPOSITION VALUES FOR SKINFOLD ASSESSMENT PROCESS

FOR MALES

STEP 1	LOHMAN EQUATION-CALCULATION OF BODY DENSITY

$$BD=[1.0973-(\text{sum SF} \times .000815)]+[(\text{sum SF})^2 \times .00000084]$$

sum of SF = Triceps SF + Sub scapular SF + Abdominal SF

STEP 2	BROZEK EQUATION-CALCULATION OF % BODY FAT FROM BODY DENSITY

$$\% \text{ BF} = (457/BD)-(414.2)$$

STEP 3	CALCULATION OF MINIMUM WEIGHT AT 7% BODY FAT

$$MWW=([1-(\% \text{ BF}/100)] \times TBW) / (.93)$$

ALTERNATE METHOD FOR MWW

FAT WEIGHT (FW) = TBW x (%BF/100)

LEAN BODY MASS (LBM) = TBW – FW

MWW = (LBM) ÷ .93

BOILEAU EQUATION FOR CALCULATION OF BODY FAT
FOR FEMALES

$$\%BF = [1.35 \times (\text{sum SF})] – [0.012 \times (\text{sum SF})^2]-3.4$$

sum of SF = Triceps SF + Sub scapular SF

MWW (females) = (LBM) ÷ .88