



Safe Weight Loss and Management Practices In Sport

By Castleton Athletic Training Students
Luke Carroll, Bethany Fitzgerald, John
Hamme, Charlie Stapleford



Practice Guidelines

Promotion of Healthy Weight Control Practices in Youth Athletes (American Academy of Pediatrics)

Safe Weight Loss and Maintenance Practices in Sport and Exercise (National Athletic Trainers Association)

Promotion of Healthy Weight Control Practices in Young Athletes



- Young athletes in sports with physique components
- Unhealthy Weight Gain/ Loss Strategies
- Performance Enhancing Substances
- LAW Calculations



NATA Position Statement: Safe Weight Loss and Maintenance Practices in Sport and Exercise

- Assess body composition
- Sport Aesthetics
- Hydration Assessment
- Monitoring/Maintaining body weight
- Disordered eating



Clinical Methods Used to Assess Body Composition

- BMI
- Skinfold measurements
- Other techniques



Determining Body Weight Goals

SMART goals



In order to properly reach weight goals, an athlete must calculate daily caloric needs based off their BMR (Basal Metabolic Rate).

Using a free app such as MyFitnessPal can help an athlete plan meals and track their food intake, which is important in helping an athlete reach their weight goals in a safe manner.

<https://manytools.org/handy/bmr-calculator/>

<https://www.myfitnesspal.com/food/calorie-chart-nutrition-facts>

LAW Calculations

| Variables | Formulas |
|---|-------------------------------|
| bf% | LAW1 = FFW/0.95 |
| wt | LAW2 = wt - (1.5% × #wk × wt) |
| FW = wt × bf% | |
| Fat-free weight (FFW) = wt - (wt × bf%) | |
| No. weeks in season (#wk) | |

BF%= body fat percentage

FFW= fat-free weight

FW= fat weight

#wk= number of weeks in season.



Dietary Recommendations

Coaching an athlete on healthy nutritional practices and eating is imperative. Fad diets and other myths must be refuted from the start.

Simply being in a caloric surplus or deficit is not enough. Still need a balanced diet with a plan of daily macros to hit, which is where MyFitnessPal comes in.

Have the athlete do their own research!

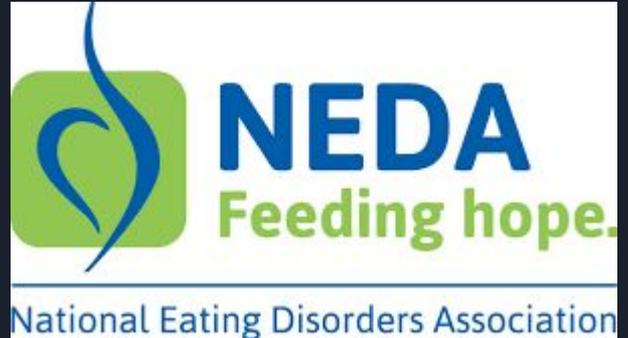
Dehydration and Weight Management

Many safe methods exist to achieve goal weight or the lowest safe weight, However unsafe practices involve self- deprivation techniques that lead to dehydration, self-starvation, and disordered eating.

- Dramatic weight loss
- Dresses in layers to hide weight loss
- Is preoccupied with weight, food, calories, fat grams, and dieting
- Refuses to eat certain foods
- Makes frequent comments about feeling “fat” or overweight despite weight loss

How can you help?

- Connecting the athlete with a doctor for examination
- Monitoring an athlete for weight and vital signs
- Weighing in athletes for weight-restricted sports
- Giving a talk to your team



(800) 931-2237

Dehydration

Dehydration is the process of losing body water.

Hypohydration is a deficit of body water that is caused by acute or chronic dehydration. Hypohydration represents a continuum from both a clinical perspective (mild = 1% to 5%, moderate = 5% to 10%, and severe = 10% body mass deficit)

Common signs and symptoms:

- Thirst
- Flushed skin
- Dizziness
- Nausea
- Headache
- Poor concentration

**AM I DEHYDRATED?
HERE'S HOW TO TELL**

SIGNS OF MILD TO MODERATE DEHYDRATION INCLUDE:

-  **THIRST**
-  **DRY MOUTH**
-  **RAPID BREATHING**
-  **RAPID HEARTBEAT**
-  **FATIGUE**
-  **HEADACHE**
-  **SEVERE DIZZINESS OR LIGHTEADEDNESS**
-  **UNCONSCIOUSNESS OR DELIRIUM**

Hydration Assessment

Athletic trainers or other health care providers should help establish individualized hydration plans for physically active people (including those involved in team sports). The plans should include rehydration strategies that consider sweat rate, environment, acclimatization state, body size, exercise duration, exercise intensity, and individual fluid preferences and tolerance

URINE COLOR CHART

NO COLOR. TRANSPARENT

You're drinking a lot of water



PALE STRAW COLOR

You're normal & well hydrated



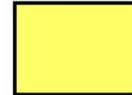
TRANSPARENT YELLOW

Normal



DARK YELLOW

You need to drink some water soon



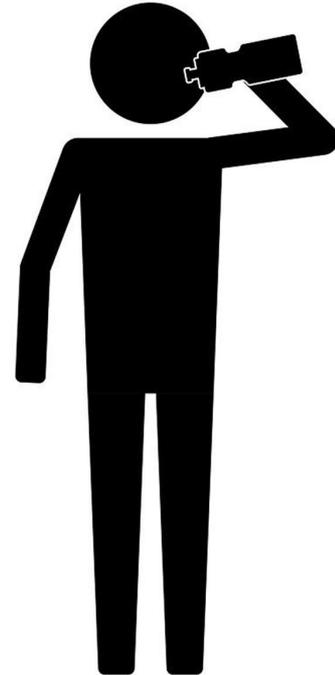
AMBER OR HONEY

Your body isn't getting enough water.



SYRUP OR BROWN ALE

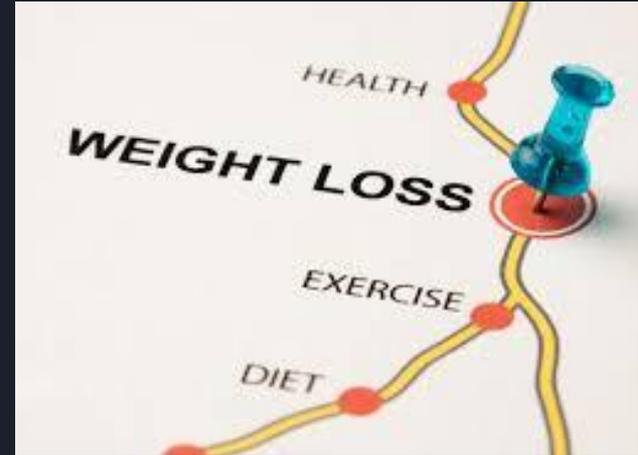
You need to drink water.
NOW & A LOT!



Disordered Eating & Weight Management

Why do athletes cut weight?

- To enhance athletic performance
 - Perfectionism *Concepts Of Athletic Training*
- To achieve a certain aesthetic look
 - “In a study of 677 elite adolescent athletes, female athletes exhibited higher rates of eating disorders than male athletes (14% vs 3.2%), and both groups had a greater risk than their non-athlete peers.” *Promotion of Healthy Weight Control Practices in Young Athletes*



Consequences of Disordered Eating

Deprivation strategies lead to...

- Improper dieting
- Self starvation

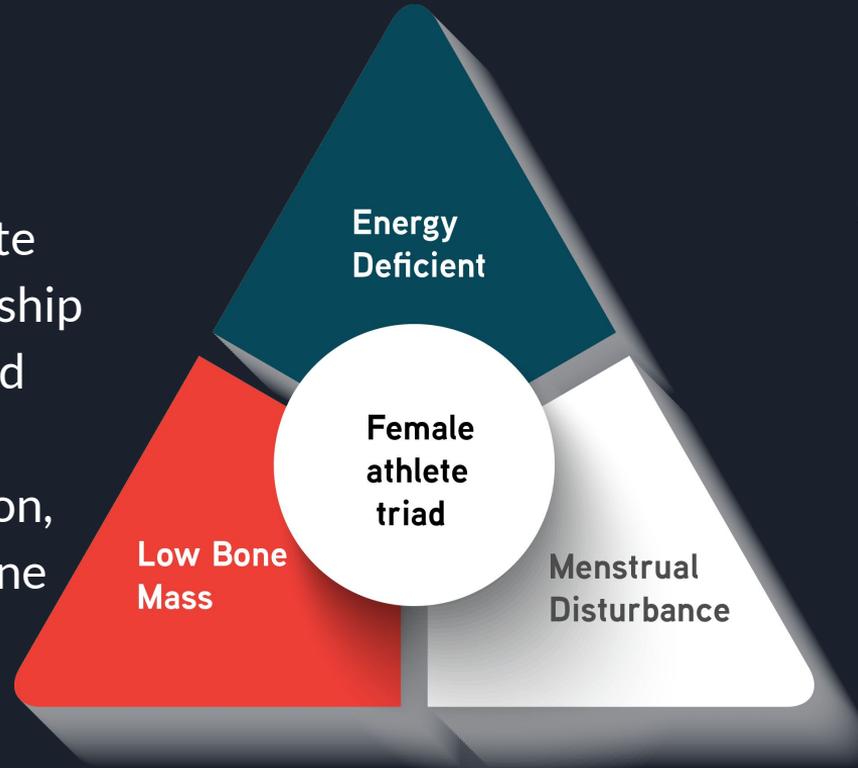
Can cause...

- Decreased performance
- Health risks



The Female Athlete Triad

- The female athlete triad is a relationship among disordered eating, altered menstrual function, and abnormal bone mineralization



S/S:

- Fatigue
- Weight Loss
- Absent/Abnormal Periods
- Binge Eating
- Fasting
- Excess Exercise

Scenario 1

Age: 17

Height: 5"4'

Weight: 95

Athlete exercises in the morning in a fasted state, and then often skips breakfast. Athlete consumes a small snack prior to practice after school, then returns home after practice and eats a small dinner.

Issues: Excessive exercise, poor diet/fasting, irregular menstrual cycle , tibial stress fracture.

Disorder: Female Athlete Triad



Scenario 2

Age: 15

Height: 5'8"

Weight: 140

Body Fat: 10%

The athlete's coach want the athlete to wrestle at the 120lb weight class. This athlete skips breakfast, eats salad for lunch, then runs 2 miles before practice. Athlete practices from 5-8, returns home and eats a small chicken salad for dinner.





Example of LAW Calculation

Athlete has 10% body fat percentage weighing in at 140 pounds and wrestling is a 16 week season.

Fat Weight: $140 \times 0.1 = 14$ pounds

Fat Free Weight: $140 - (140 \times 0.1) = 126$ pounds

LAW 1: $= 126 / 0.95 = 132$ pounds

LAW 2: $140 - (0.015 \times 16 \times 140) = 106.4$ pounds

*This athlete must not drop below 132 lb during this season.



Education

- Education of athletes, parents, and coaches about unhealthy weight loss behaviors and their negative impact on health and performance is important to prevent adverse health effects.
- Some coaches inappropriately focus on weight instead of performance.
- Coaches generally do not have an adequate nutritional background to counsel an athlete about weight loss.
- If an eating disorder is suspected, referral to a physician, Registered Dietitian Nutritionist (RDN), and mental health provider, is appropriate.



Wrapping Up...

Performance is more important than weight when regarding the athlete's health

Health of the athlete trumps all other factors

Athlete/Coach education is critical for a successful and healthy athlete

Proper weight management and hydration plays a pivotal role in an athlete's development



References

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