



## The Beverage Institute For Health & Wellness

### **HOW TO CALCULATE YOUR SWEAT RATE**

**standard unit version**

Your sweat rate is the amount of fluid you lose, primarily through sweat, during each hour you exercise under your usual exercise conditions. It is also a guide for the amount of fluid you should consume each hour while exercising to stay well hydrated and perform your best.

#### **Sweat Rate Calculation:\***

1. \_\_\_\_\_ **Record how much weight you lose [in ounces] during exercise under your usual workout conditions.** (1 lb = 16 oz)
2. \_\_\_\_\_ **Record how much fluid you drink [in ounces] during exercise.**  
(1 cup = 8 oz; 1 gulp = about 1 oz).
3. \_\_\_\_\_ **Add 1 & 2 (from above) together.**  
This is the amount of fluid your body lost while exercising.
4. \_\_\_\_\_ **Divide the number obtained in 3 (above) by the number of hours you exercised.**  
**THIS IS YOUR SWEAT RATE.**

\* *For greatest accuracy, weigh yourself without clothing or shoes and avoid using the restroom prior to post-exercise weigh-in. Also, since changes intensity, temperature and humidity can significantly affect how much fluid you lose—and need -- calculate your sweat rate under your normal workout conditions. Then, when temperature, humidity, and/or your workout intensity level are up, plan to drink a bit more – although never more than you sweat. When they're down, plan to drink less.*

Also remember -- when you exercise vigorously for more than an hour, a *smart* hydration plan will include electrolytes (primarily sodium) to replace those lost in sweat and prevent hyponatremia and carbohydrates to delay fatigue.

**Example:** Sue drank 12 ounces of fluid during her 1-hour workout and lost 1/2 pound (8 ounces). Her sweat rate is  $[(8+12)/1] = 20$  oz/hr. Therefore, to drink to her sweat rate, Sue should consume 20 ounces every hour -- or about 5 ounces every 15 minutes -- during her workouts.

### **AMERICAN COLLEGE OF SPORTS MEDICINE GUIDELINES: KEY TO YOUR SMART HYDRATION PLAN**

- Eat a nutritionally balanced diet and drink adequate fluids during the 24-hour period before an event, especially during the meal prior to exercise.
- Two hours before exercise, consume about 14 to 20 ounces of fluids. This helps promote adequate hydration at the start of your workout to while allowing time to excrete any excess.
- During exercise, drink at regular intervals, usually every 15 to 20 minutes, to replace the water lost through sweating, but avoid overdrinking. Changes in your exercise intensity, the environmental temperature and/or humidity can significantly affect how much fluid you lose. If you lose weight during exercise, rehydrate by drinking 16 ounces of fluid for every pound of body weight lost.
- Fluids should be cooler than ambient temperature (between 59 and 72 degrees) and flavored to enhance palatability and promote fluid replacement. Fluids should be readily available and served in containers that allow adequate volumes to be ingested with ease and minimal interruption of exercise.
- For exercise lasting longer than one hour, drink liquids that contain four to eight percent carbohydrates and approximately .5-.7 grams of sodium per liter of water.\*

\*Regular sports drinks are formulated to meet these recommendations.



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### **HOW TO CALCULATE YOUR SWEAT RATE**

**metric unit version**

Your sweat rate is the amount of fluid you lose, primarily through sweat, during each hour you exercise under your usual exercise conditions. It is also a guide for the amount of fluid you should usually consume each hour while exercising to stay well hydrated and perform your best.

#### **To calculate your Sweat Rate\*:**

5. \_\_\_\_\_ **Record how much weight you lose [in kg] during exercise under your usual workout conditions.**
6. \_\_\_\_\_ **Record how much fluid you drink [in ml] during exercise.**  
(1 liter = 1000 ml; 1 gulp = about 30 ml).
7. \_\_\_\_\_ **Add 1 & 2 (from above) together.**  
This is the amount of fluid your body lost while exercising.
8. \_\_\_\_\_ **Divide the number obtained in 3 (above) by the number of hours you exercised.**  
**THIS IS YOUR SWEAT RATE.**

\* For greatest accuracy, weigh yourself without clothing or shoes and avoid using the restroom prior to post-exercise weigh-in. Also, since changes intensity, temperature and humidity can significantly affect how much fluid you lose—and need -- calculate your sweat rate under your normal workout conditions. Then, when temperature, humidity, and/or your workout intensity level are up, plan to drink a bit more – although never more than you sweat. When they're down, plan to drink less.

Also remember -- when you exercise vigorously for more than an hour, a *smart* hydration plan will include electrolytes (primarily sodium) to replace those lost in sweat and prevent hyponatremia and carbohydrates to delay fatigue.

**Example:** Sue drank 360 ml of fluid during her 1-hour workout and lost ¼ kilo (250 g). Her sweat rate is  $[(360+250)/1] = 610$  ml/hr. Therefore, to drink to her sweat rate, Sue should consume about 610 ml every hour -- or about 150 ml every 15 minutes -- during her workouts.

### **AMERICAN COLLEGE OF SPORTS MEDICINE GUIDELINES: KEY TO YOUR SMART HYDRATION PLAN**

- Drink plenty of fluids during the 24-hour period before an event, especially during the meal prior to exercise.
- Two hours before exercise, consume about 400 to 600 ml. of fluids. This helps ensure good hydration at the start of your workout to while allowing time to excrete any excess.
- During exercise, drink at regular intervals, usually every 15 to 20 minutes, to replace the water lost through sweating, but avoid overdrinking. Changes in your exercise intensity, the environmental temperature and/or humidity can significantly affect how much fluid you lose. If you lose weight during exercise, rehydrate by drinking 1 liter of fluid for every kilogram of body weight lost.
- Fluids should be cooler than ambient temperature (between 15 and 22 degrees C) and flavored to enhance palatability and promote fluid replacement. Fluids should be readily available and served in containers that allow adequate volumes to be ingested with ease and minimal interruption of exercise.
- For exercise lasting longer than one hour, drink liquids that contain four to eight percent carbohydrates and approximately .5-.7 grams of sodium per liter of water.\*

\*Regular sports drinks are formulated to meet these recommendations.



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