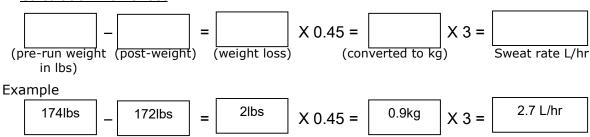
How to Calculate Your Sweat Rate

(adapted from articles in *Triathlete*[©] magazine, October 2007 and *The British Journal of Sports Medicine*. Douglas Casa PhD, ATC)

- 1. Empty yourself as much as possible (bowels and bladder). The best time to do this is early in the morning.
- 2. Get completely naked and weigh yourself. If your scale allows, measure your weight in kilograms, otherwise use pounds. Record this number.
- 3. Exercise at a hard, game-like pace for 20 minutes. Since running is when we typically get dehydrated the most, go and run for 20min. You can do a more sport-related activity (ex. running football drills) but it must be *constant* activity for the 20 minutes no stopping. For example, starting at your house, run at a constant until you reach 10min., then turn around and run back (20min. total).
- 4. **Do not eat, hydrate or urinate** during or after the activity (until you complete step 6).
- 5. Remove all your clothes and, using a towel, get as dry as possible. Use the towel to get as much sweat out of your hair as possible. Do not shower.
- 6. While naked, weigh yourself one more time. Get dressed.
- 7. Subtract post-exercise weight (step 6) from pre-exercise weight (step 2). This gives the *weight* of the sweat you lost during exercise.
 - a. If you measured your weight in **kilograms**, go directly to step 8.
 - b. If you measured both weights in **pounds**, multiply the weight difference by 0.45 to convert to kg then go on to step 8.
- 8. Multiply the number from step 7 by 3 (since workout was 20min. long) to determine hourly sweat rate. Each kg of sweat is equivalent to 1 Liter. So this number is your sweat rate in L/hr. This number, in liters per hour, is the amount you need to replenish. The volume of fluids you consume during & after workout (until bedtime that same day), should equal your total sweat loss.

Calculation worksheet



Notes:

- 1. Environmental temperatures will affect sweat rate. When performing this test, it is best to recreate the conditions that are typical of your sport.
- 2. Alternatively, you may exercise longer, such as 30min. then multiply X 2 to determine hourly sweat rate (2 X 30min = 1 hour).
- 3. Google has a built-in converter into its search engine for step 7b. Ex: try typing "5lbs to kg" into the search bar.