

Sodium replacement during training

Gauging your client's level of dehydration during training will allow you to effectively plan for fluid replacement and make the most of their training.

The side-effect of sweating is to lose fluid and electrolytes from body stores. When exercise continues in the face of a building fluid deficit, particularly in a hot environment, it becomes more challenging for the body to maintain its activity regulation.

We encourage fluid intake during exercise to keep overall fluid losses to a modest level but there is no need for clients to drink more than they sweat; in fact, doing so can be dangerous, so it is good to have an idea of clients' typical sweat rates during exercise, so you can develop a fluid plan that 'paces itself' just below their likely fluid losses.

There is considerable variation among individuals in terms of both sweat rate and sweat composition. Characteristics that affect sweat include: intensity of the exercise, fitness level, environmental conditions, body size and gender (males sweat more than females), clothing and cooling strategies in use (e.g., fans).

To provide a plan for fluid replacement you need to be able to estimate fluid losses. An estimate of sweat loss during exercise can be obtained by weighing clients both before and after exercise, with weight change reflecting total fluid loss (see example table, right). Use the table below to estimate your client's fluid loss, and consider the following points:

- Client to empty bladder prior to and after exercise session/weigh ins
- Client to towel dry before weighing at the end of the session
- Measure drink bottle at the end with whatever fluid remains (if your client wishes to refill during the session then simply repeat the process of drink bottle weighing)
- Note the weight change in kg at the end of the session. This approximates the change in fluid status over the session. For example, 1kg in weight change equals 1L of fluid change.

ESTIMATING FLUID LOSS DURING EXERCISE

Client name: Bob

Date: 07/09/2010

Other observations: hot day (22°C in studio), Bob wore heavy sleeved t-shirt

Client weight prior to session (bare feet, minimal clothing)	87kg
Measurement of client's drink bottle at session start	500ml
Measurement of client's drink bottle at session end	0ml
Client weight at end of session	86kg

Client name:

Date:

Other observations:

Client weight prior to session (bare feet, minimal clothing)	
Measurement of client's drink bottle at session start	
Measurement of client's drink bottle at session end	
Client weight at end of session	
Overall approximate sweat loss (total fluid consumed + amount of bodyweight lost)	