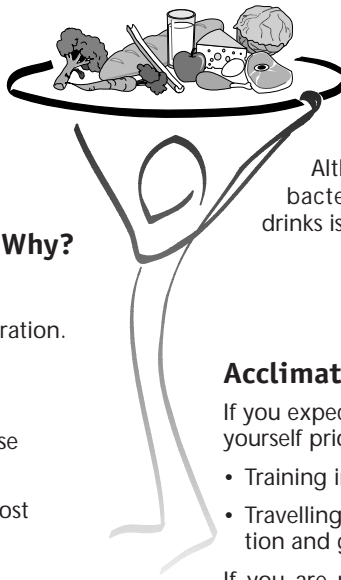


# FLUIDS FOR ATHLETES



## Fluids Are Important For All Athletes! Why?

- To replace water lost during exercise.
- To avoid decreases in performance due to dehydration.
- To help maintain core body temperature within acceptable limits.
- To deliver carbohydrate during prolonged exercise (e.g., sport drink).
- To provide electrolytes (sodium and potassium) lost through sweat (e.g., sport drink).

## MONITOR YOUR FLUID LOSSES:

- Ample, light coloured urine means well hydrated
- Dark, scant urine signals a need for more fluid
- Weigh yourself before and immediately after exercise – see “Fluids after exercise” below.

### Fluids before exercise:

Drink plenty of fluid daily to maintain weight and adequate urine output.

- Drink 400 – 600 mL of fluid 2 to 3 hours before exercise.
- Drink 150 – 350 mL about 15 minutes before exercise.

### Try this in training to find how much fluid is comfortable.

LIMIT beverages that contain caffeine and alcohol.

### Fluids during exercise:

Drink enough fluid to maintain fluid balance.

- Drink 150 – 350 mL every 15 to 20 minutes.
- Test how much you can tolerate without discomfort.

Athletes rarely consume enough to maximize the absorption rate of the digestive system.

### Fluids after exercise:

- Replace fluid loss by 150% (about 1.5 L per kg weight loss). For example, if 2 kg weight loss, drink 1.5 L x 2 (3 L or 3,000 mL) fluid.
- Include sodium with or in fluids consumed after exercise.

Sodium helps maintain plasma electrolyte balance and the desire to drink.

## IMPORTANT – AWAY FROM HOME

Although tap water may be “safe” to drink, variations in the bacteria may cause gastro-intestinal upset. Adding ice to drinks is the same as adding tap water.

250 mL = 1 cup = 8 fluid ounces  
1 L = 4 cups = 32 fluid ounces  
1 kg = 2.2 lbs.

## Acclimatize:

If you expect to compete in a very hot environment, acclimatize yourself prior to competition by:

- Training in a similar environment prior to departure
- Travelling to the competition site at least a week prior to competition and gradually increasing your training in those conditions.

If you are not acclimatized and you are exercising in hot, humid conditions, make sure your fluid replacement drink contains sodium, lightly salt the pre-competition meal or choose foods containing salt (tomato or vegetable juice, salted crackers, low fat cheese).

## FACTORS THAT ENCOURAGE FLUID CONSUMPTION:

- Easy access to the beverage
- Chilled drinks (about 10 degrees C)
- Flavoured fluids
- Sodium added (0.5 – 0.7 g/L to enhance flavour).

## CARBOHYDRATE – ENERGY FOR ENDURANCE:

If exercising more than 1 hour, consume carbohydrate with your fluids.

- Commercial sport drinks containing 4% to 8% carbohydrate (40 – 80 g/L) are a suitable choice.

### Test sport drinks in training, not in competition.

You can make a fluid replacement drink by mixing:

500 mL unsweetened orange juice  
500 mL water  
1.25 – 1.75 mL salt

One litre = 54 g (5.4%) carbohydrate and 0.5 – 0.7 g sodium.

### Avoid salt pills:

Salt pills are too concentrated, need a lot of water for adequate dilution, and can lead to vomiting and diarrhea.

### Recovery after exercise:

- Drink 1.5 L of fluid for every kilogram of weight lost during exercise.
- Consume high carbohydrate foods and drinks.
- Consume foods containing sodium (tomato or vegetable juice, pretzels, commercial soup, low fat cheese, salted nuts) and foods containing potassium (vegetables, fruit, milk, legumes, or meat) to replace electrolytes.

## DRINK BEYOND THIRST – exercise dulls the thirst mechanism.

