

ITF Coaches Education Programme Level 2 Coaching Course



Drink to win

Importance (I)



- Hydration is an underrated issue in tennis
- Some players and coaches are unaware of the basic aspects of hydration: what, how much, when and why?
- Having good hydration habits can help players to win a lot of matches

Importance (II)



- Coaches should teach hydration habits in the same way they teach technique or tactics
- Players should develop hydration habits as a routine from childhood
- Hydration, nutrition and sleep are part of the “INVISIBLE TRAINING” that is very important

Importance (III)



- Players cannot afford to have bad hydration habits
- Fluid is lost during exercise, largely through sweating
- A fluid loss equal to 1% of body weight can result in a reduction of physical fitness



Fluid loss (I)

- Fluid loss has the following consequences:
 - Reduces the ability of the body to sweat and thus cool the body
 - Lowers the blood volume which can reduce the blood flow from the heart, thus causing a decrease in performance
 - Causes the loss of electrolytes which may reduce the muscles' ability to contract



Fluid loss (II)

- Sweat rates of tennis players:
- 0.5 - 2.5 litres per hour of play
- Losses of 2% of body weight produce important losses in performance

Reasons for drinking?



- *Immediately before playing:*
 - Prepares the body
- *During play:*
 - Helps energy supply to muscles (carbohydrates)
- *Immediately after playing:*
 - Helps in the recovery and replenishes the fluid lost



Dehydration

- A slight dehydration can undermine the player's energy and reduce his performance
- In some cases the feeling of being thirsty can be a symptom of dehydration
- So, don't wait to be thirsty to drink water!
- Big quantities of fluid are eliminated more quickly than smaller ones

Factors that affect the amount of fluid lost



- Temperature
- Humidity
- Intensity of exercise
- Training status
- Acclimatisation
- Size of body surface
- How well hydrated you are
- Clothing
- Sweat rate

Monitoring hydration levels

- Check the colour of your urine. It should be always straw coloured and plentiful

Finding out the fluid lost

- Weight yourself before and after exercise, without clothes and dry
- 1 kg. of weight loss indicates 1 litre of fluid loss

Checking dehydration



- After or during exercise, pinch the skin on the back of your hand
- If you are well hydrated, once you let go, it should snap back
- If the skin remains in the pinched position for several seconds or more, you may be in need of fluids and should begin rehydration immediately



Rehydration

- The body has to absorb fluids as fast as possible
- There are some fluids that are absorbed 30% faster than water
- These fluids are the ones which have a carbohydrate solution lower than 8%
- If the percentage is higher, the absorption will be lower

What to drink? (I)



- The most important nutrient a player needs is water
- It is the best replacement fluid for most players
- Replacement of electrolytes is important but the player doesn't need to worry about them until after exercise is over
- When a player sweats he loses more water than electrolytes. Therefore, during a match, water replacement is the main concern

What to drink? (II)



- Water is all natural, 100% pure, low sodium, fat free, no cholesterol, no calories, thus it fits the description of a perfect food
- A human being can survive without food for weeks, but only a few days without water
- 60% - 70% of a human being body weight is water. Muscle is 70-75% water, fat only about 10-15%

What to drink? (III)



- After the match, electrolyte replacement is easily achieved by a normal diet
- Sports drinks are fine to use as fluid replacement after the training or match is over
- There is no evidence of any improvement of performance using these “electrolyte” drinks for events lasting less than three hours
- On the other hand, no study on carbohydrate drinks reports any reduction in performance

What to drink? (IV)



- Isotonic drinks (sodium, potassium, etc.) scientifically tested: GATORADE, ISOSTAR, etc.
- Water
- Fruit juices
- Make your own “energy drink” according to your needs

What to drink? (V)



- If drinking commercial drinks, it is convenient to drink scientifically tested and tennis proven drinks
- Drinks should combine:
 - Fast rehydration
 - Provide energy
 - Good taste

How much should I drink?

- Extra fluid needed (formula):

(Pre-exercise weight - Post-exercise weight) x 1.5

Making your own sport drink



- There are different types:
 - Dissolve 60 gr. of glucose in 1 litre of water, and add 1 gram of salt
 - Mix 500 ml of unsweetened fruit juice with 500 ml of water. Add 1 gram of salt
- Always ensure that your drinks bottle is sterilised
- Glucose polymer or squash can also be used



What to drink? (VI)

- Drinks should be cold, better cold than iced
- Very sweet drinks do not favour the absorption of the fluid
- Avoid fizzy drinks, alcohol, coffee or tea: they are counter active
- Coffee, tea or colas contain caffeine which is a diuretic substance which promotes fluid loss, causing even faster dehydration



Types of drinks

- Drinks with a low concentration in carbohydrates
- Isotonic drinks (6-8% carbohydrates)
- If it's cold and/or the match/tournament is longer it may be useful to use a drink with slighter higher concentration but never higher than 16%

When to drink? (I)



- If the player wants to be ready it is not enough drinking when feeling thirsty
- When you feel thirsty it means you've already lost:
 - Electrolytes
 - Fluids
 - Energy

When to drink? (II)



- DO NOT wait until you are thirsty to drink
- Drink:
 - Before
 - During
 - After play
- In training as well as in matches

When to drink? (III)



- It is impossible to drink more than 1.2 litres of fluid per hour

Prior to the match



- The day before training or competition, players should start drinking early
- Take in fluid in small but frequent amounts in the hours prior to the match
- To remain hydrated, research has shown that a player should drink 4 to 6 cups of liquid 2 hours before a match and 2 to 4 cups of liquid 15-20 minutes before a match

When to drink? (IV)



- The day before training or competition:
 - Start drinking early
 - 2 hours before: 4 to 6 cups (small but frequent amounts)
 - 15-20 minutes before: 2 to 4 cups
- During play: 1 glass each 15 mins. of play
- After play: Drink until they feel all right



Conclusions

- Drinking is very important for the player's performance
- Drink before, during and after the match
- Do not wait until being thirsty to drink
- The hotter the day and the longer the match are, the more the player has to drink