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 loses 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