



# SPEED PROJECT

Sport & Prevention of Emerging Eating Disorders

## Hydration and fluid balance

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# Hydration is part of training

## Hydration is part of preparation:

Just one afternoon at school without drinking is enough to compromise concentration, endurance, and recovery.

When fluid loss is not compensated during training:

- Reaction times slow down
- Muscles and heart tire sooner
- Risk of headaches and loss of focus increases

A well-hydrated athlete is always a more efficient athlete.





# How fluid balance works in the body



## Sweat, heat, and fluid balance:

When temperature rises — during physical activity, in heat, or in a crowded gym — sweating increases to disperse heat.

Sweat is not only water, but also mineral salts.

If a young person does not drink enough during the day, they arrive at training already in deficit. The body then prioritises vital functions over performance.

## Key insight:

- What is drunk in the preceding hours is just as important as what is drunk during the activity itself.



# Signs of dehydration: what happens during activity

**Dehydration builds gradually:**

**Early signs:**

- Difficulty concentrating, sensation of early fatigue
- Cramps, intense thirst, flushed skin, headache

**What a coach may notice:**

- Less reactivity and technical errors in simple situations
- Slower recovery during rest minutes

**A simple check:**

- Dark urine almost always indicates a significant fluid deficit.





# Distributing fluids throughout the day



## Before

Drink regularly in small sips throughout the day

## During

Frequent small sips at regular intervals (if > 1 hour)

## After

Reintegrate lost fluids — even one glass helps recovery

## Don't wait for thirst:

Thirst is a delayed signal — it arrives when the body is already in deficit. Effective hydration must begin in the hours before training.

*What is drunk in the preceding hours is just as important as what is drunk during the activity.*



# Water or sports drinks?

## Water is the foundation:

In most cases, water is more than sufficient during training and everyday activity.

## Sports drinks can be useful only in specific cases:

- Very intense training lasting more than 90 minutes
- Activity in extreme heat
- Tournaments with closely spaced matches

Used indiscriminately, sports drinks introduce unnecessary sugars and create poor habits. Assess according to context — not as an automatic choice.





# The coach's role: building a culture of hydration

## Building a culture of hydration:

A coach can create an environment that encourages regular drinking:

- A reminder before training
- A structured water break during the session
- Personal example of always carrying a water bottle
- Teaching athletes that dark urine signals dehydration

## Watch for:

- Athletes who never drink during a session
- Those who arrive already fatigued or show recurring dehydration signs

