

# WHY IS IT ESSENTIAL TO REHYDRATE?

Maintaining optimal hydration is essential in order for the body to function correctly, especially during exercise.

When dehydrated, it is important to restore your body's water balance as soon as possible. Just drinking a lot of water usually is not sufficient.

The water in our body contains crucial electrolytes, i.e. important minerals that allow our body to carry out critical chemical reactions. Rehydrating must restore these electrolytes because they tend to be lost during sweating.

# Effects on sport performances

- > Effects on physical performance (decreasing endurance)
- > Effects on cognitive performances (concentration, tactical choice, etc.)

# Effects on health condition

- Blood system > Digestive disorders
- > Cardiovascular disorders

Failure to do so can result in a state called hyponatremia, or "water intoxication", which can cause headache, fatigue, muscle cramps, stomach upset, and in extreme cases, even death.



# **MINERALS LOSSES**

During perspiration we typically lose around 460 mg/L

1.4 g/L of **sodium** 300 – 400 mg/L of **potassium** 40 mg/L of **calcium** 4.8 mg/L of **magnesium** 

Studies show that athletes on average replace only 30-70% of their mineral losses incurred by sweating. Plain water is hence not sufficient.

# **HYDRA**4G

HAS BEEN DESIGNED TO COVER MINERAL LOSS DURING PERSPIRATION!

# Muscular contraction Mg K Range Health Na Ca

MINERALS HEALTH BENEFITS

## References

J.Maughan, Nutrition in sport, Encyclopedia of sports medecine and ioc medical commission publication, 2000 X.Bigard,C.Y. Guezennzc, Nutrition du sportif, ED. Elsevier Masson, 2007

L.M.Burke, Nutritional needs for exercise in the heat, comparative *Biochemistry and Physiology*; Part A 128, 2001 G. Dubnov-Raz, Y. Lahav, N.W. Constantini, Non-nutrients in sports nutrition: fluids, electrolytes and ergogenic aids, the European e-Journal of Clinical Nutrition and Metabolism; 6, 2011

Regulatory action

> C.Y. Guezennec, Les boissons de l'effort: bases physiologiques de leurs utilisations et composition, Cahiers de nutrition et diététique; 46, 2011

Metabolism of the body

# BOOST + HYDRATE + BALANCE

# CHOOSE THE BEST FORMULA FOR YOUR SPORTS DRINK



Potassium Citrate

+

**Magnesium** Glycerophosphate



**Sodium** Citrate



**Calcium** Glycerophosphate

# WHY CHOOSE HYDRA4G

Hydra4G is a mixture of chelated salts in powder form. Calcium, magnesium, sodium and potassium were selected due to their important physiological functions during exercise. This powder form will blend perfectly into your sports drink.

## HIGH QUALITY MINERAL SALTS

- > GMP Accreditation
- > Produced in France
- > FCC Specifications
- > High purity organic salts
  - > High bioavailability
    - > High stability
  - > Low heavy metal levels
  - > Gluten & Allergen free
    - > BSE & GMO free
    - > Kosher Certification

# WHY USE GLYCEROPHOSPHATE ANION?

Glycerophosphate is combining all benefits given by the physiological functions of both glycerol and free phosphate.

> Energy production 1 molecule of glycerol = 19 ATP > Phospholipids synthesis

# **GLYCEROL**

# GLYCEROPHOSPHATE ANION

# **PHOSPHATE**

- > Improves brain functioning
- Regulates balance of hormones
- > Improves health of digestive system
- > Helps maintain healthy bones & teeth and eliminates muscles weakness & fatigue
- > Facilitates the maximum utilization of proteins in body



ISALTIS

Site Givaudan Lavirotte
56 rue Paul Cazeneuve - 69008 Lyon - France
Tel : +33 4 7861 5577 - contact@isaltis.com

www.isaltis.com