

Hydration strategies: 25/04/2020

Role of water:

- Body temperature regulation
- nutrients vitamins minerals transportation
- digestion
- medium for different biochemical and metabolic reaction
- removing waste products/ toxins
- proper muscle work

What is dehydration?

- excessive loss of body water

Causes of dehydration:

- Excessive sweat
- vomiting
- diarrhoea
- INADEQUATE WATER INTAKE

Signs of dehydration:

- increased thirst
- dry mouth
- dry skin
- sunken eyes
- low urine output

Dehydration in Boxing:

- Boxers start reducing their weight rapidly to come to lower weight class
- water is boxers' lifeline

- water regulates temperature, lubricate joints, transport nutrients to supply energy
- THIRST is the detection system of dehydration in our body
- boxer's suffer from deleterious and fatal effects of dehydration in the process of reducing weight during competition
- In Olympics, weigh-in is held 6-24 hrs before competition, they get time to recover before the bout
- Gary Russell Jr: disqualified in Beijing Olympics as he was severely dehydrated and unconscious in room
- Daniel Cormier, captain of US wrestling team , 2008 Olympics, had kidney shut down
- Research in Canada, 10% of all boxer's and 8% of all MMA had concussion as they were dehydrated
- Ricky Hatton, reduce 40lbs before every bout
- Salido weighs 11lbs more than Lomachenko in Mexico making to his advantage

Effects of dehydration in boxers:

- Decreased alertness/concentration
- Headache
- slow reaction time
- increased tiredness/fatigue/impaired performance

BRAIN:

- 3 kg body weight loss leads to 30% reduction of brain liquid; increased vibration in the brain, more damage, concussion injury due to enlargement of ventricles
- 2% loss of BW is mild dehydration, decrease ventricular volume, poor motor control/cognition, performance reduces by 5%, which multiplies to 30% when dehydrated to 5% of BW.

KIDNEY:

- BP increases due to increased thickness or viscosity of the blood thereby slow in movement
- dehydration decreases blood volume and flow
- decreases heat dissipation from the skin
- increase core temperature

PAIN tolerance:

- dehydration leads to increased cortisol level which is directly involved in pain sensitivity
- reduced lactic acid removal due to dehydration

ELECTROLYTE LOSS:

- Heat illness esp during training in hot environment
- short gap between weigh in and bout, incomplete replenishment of electrolytes (Sodium Potassium Magnesium) in the body.

All these will lead to:

- heat Cramps/heat exhaustion/heat stroke
- Raised body temperature
- Irregular and fast Heart Beat
- Fatigue/Lethargy/Nausea vomiting

Is weight reduction good for boxer's?

Yes/No/Different opinion

TESTING DEHYDRATION:

- Skin tenting
- Urine colour

PREVENTION OF DEHYDRATION

- Education and discipline
- Drink plenty of water
- Avoid rapid weight loss
- Monitor weight pre and post training
- weight reduction shouldn't be down by 1% per week
- avoid rapid weight loss

- 8x8 formula of water intake (5-6 litres in summer)

Best drinks of hydration:

- WATER

- Milk

- Fruit juice

- Watermelon

- Sports drinks

- Tea(green)

- Coconut water

- Soy/coconut/almond milk

Drink small sips of water and not too much at once in order to have proper absorption

High sodium fluids:

- Gatorade least, Sea water maximum

"NOTHING IS MORE IMPORTANT THAN STAYING HYDRATED"

Q: Sports drink before during after bout?

A: Lemon water with salt and sugar is the best choice.

Q: Cramp during recovery if during training?

A: Cant recover immediately, PRICE, Rehydration, drink sips of water during training

Q: Hyponatremia?

A: Occurs due to excess water. Lemon water with salt and sugar

Q: Weight lowering process?

A: Weight shouldn't be above 2 kg of weight category. Weekly 1% should be reduced.

Q: Best food/drink for recovery after weighing-in?

A: Water. Banana.

Q: Best Fruit juice?

A: Fresh seasonal fruit juice is the best.

Q: Ideal Maximum weight reduction per day before competition?

A: Weekly 1%

Q: Is there any chance of facial cut if dehydrated?

A: Ofcourse

Q: Advise to junior boxer's for weight reduction?

A: Prepare a chart and systematically work on it.

Q: Gender or age difference in fluid loss symptoms?

A: Girls have less intake requirement, thereby faster symptoms.

Q: Best age to begin weight reduction?

A: Not till youth level because it will restrict and hamper natural growth process

Q: FBT should be used for how long during training?

A: It is not advisable throughout training. For warmup in winters it can be used.