

ELECTROLYTES

An effective electrolyte should aim for the following ingredients per litre:

- -1,000 1,500mg sodium
- ~24-30g glucose
- ~200-400mg potassium
- Optional magnesium, calcium and vitamin C







BASE ELECTROLYTE RECIPE

- 1L water
- ½ tsp salt (~1,160mg sodium) (3g)
- 1/3 tsp baking soda (~420mg sodium) (2g)
- 6 teaspoons glucose/dextrose (or table sugar if can't access glucose powder) (~24g)
- ½ tsp cream of tartar (~250mg potassium) (2g)

Directions

Mix ingredients together and refrigerate or serve at room temperature or over ice as preferred.

OPTIONAL ADDITIONS

- ¼ tsp magnesium powder (or as directed)
- 2 TBS lime juice (~9.2mg vit C)
- 2 TBS lemon juice (12mg vit C)
- ½ tsp citric acid (for flavour)
- Other flavours:
 - Fresh fruit: e.g. ½ cup raspberries, 3-4 orange slices etc
 - Water flavouring:
 - Makes 18 litres: https://vitalzing.com.au/collections/waterdrops?page=1
 - Makes 6 litres: https://waterdrop.com.au/collections/microdrinks#
 - Iced tea: e.g. T2 Cold Brew https://www.t2tea.com/en/au/peachberry-cold-brew-tea-bag-pack-15-pack-B130AE013.html
 - Juice (see recipes below to alter glucose accordingly)
 - Coconut water (see recipe below to alter potassium, glucose and sodium accordingly)



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CONSIDERATIONS

- Individualisation: The recipe above can be individualised based on your needs
 - The recipe above is best for people who need effective hydration e.g.
 POTS, athletes, excessive sweating, fluid loss or diarrhoea
 - If you don't have a medical condition or lifestyle that warrants the need for more effective and rapid hydration, you can make alterations to the amount of salt and glucose.
 - You can reduce the salt to ½ teaspoon to make it more palatable.
 - You can leave out the baking soda to make it more palatable. This will mean that you won't absorb the electrolyte as effectively.
 - You don't have to add the glucose or can add your choice of sweetener instead. This will mean that the electrolyte won't hydrate you as rapidly.

Glucose:

 Glucose (dextrose) powder can be purchased from brewing stores, some health food stores and chemists or online. For example: https://www.chemistwarehouse.com.au/buy/4 6691/glucodin-powder-zip-bag-325g



• Citrus:

- If I you're planning on slowly sipping the electrolyte throughout the day, it
 may be best to avoid the use of citric acid, lemon or lime juice due to the
 impact on enamel.
- If using lemon, lime or citric acid, clean your teeth afterwards by swirling plain water around your mouth.

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• Magnesium:

- Different forms of magnesium have different benefits. Match your form to what you need it for e.g. magnesium malate for fibromyalgia/chronic fatigue syndrome/athletes, magnesium citrate for constipation or magnesium glycinate for anxiety and sleep)
 - Example magnesium product:
 <u>https://www.seekinghealth.com/collections/magnesium-supplements/products/magnesium-malate-100-servings</u>
- The magnesium powder may not entirely dissolve.
 Disperse the magnesium by mixing well before pouring and drinking.



BULK PREPARATION

To prepare in bulk, mix all the dry ingredients together in multiple you desire. For example:

- $x 1 litre: \frac{1}{2}$ tsp salt, $\frac{1}{3}$ tsp baking soda, 6 tsp glucose, $\frac{1}{2}$ tsp cream of tartar
- x 2 litre: 1 tsp salt, 2/3 tsp baking soda, 12 tsp glucose, 1 tsp cream of tartar
- x 3 litre: 1.5 tsp salt, 1 tsp baking soda, 18 tsp glucose, 1.5 tsp cream of tartar
- x 4 litre: 2 tsp salt, 1 1/3 tsp baking soda, 24 tsp glucose, 2 tsp cream of tartar

When you want to mix up your electrolyte, use the options below

- Mix 2 heaped teaspoons into 250ml of water
- Mix 1 heaped tablespoons into 500ml of water
- Mix 2 heaped tablespoons (~32g) into 1 litre of water





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ALTERNATE RECIPES

For Energy: Orange Juice Electrolyte

- 750ml water
- 250ml orange juice (25g carbs (mostly sugar), 496mg potassium, 124mg vit C)
- $\frac{1}{2}$ tsp salt (~1,160mg sodium)
- 1/3 tsp baking soda (~420mg sodium)



For Sleep: Cherry Juice Electrolyte

- 750ml water
- 250ml cherry juice (36.9g carbs (mostly sugar), 433mg potassium, 30mg magnesium)
- $\frac{1}{2}$ tsp salt (~1,160mg sodium)
- 1/3 tsp baking soda (~420mg sodium)
- 200-400mg magnesium glycinate powder



Coconut Water Electrolyte

- 750ml water
- 250ml coconut water (600mg potassium, 252mg sodium, 60mg magnesium, 9g sugar)
- 1/3 tsp salt (~770mg sodium)
- 1/3 tsp baking soda (~420mg sodium)
- 4 teaspoons glucose/dextrose (or table sugar if can't access glucose powder)

Or if short on time, you can do 250ml coconut water with a pinch of salt and Itsp glucose or sugar.

