Abstract

Title: Coconut water and recovery/water-electrolyte balance after physical exercise – A systematic overview

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Background: During physical exercise, it is common with dehydration, which affects performance negatively. To restore the fluid balance it is optimal to drink fluids containing salt and carbohydrates. In theory, coconut water should be a good recovery drink because of their nutrient content.

Objective: To evaluate the scientific evidence available, to investigate whether coconut water is better than water or sports drinks for rehydration after physical exercise.

Search strategy: PubMed, Scopus and Cochrane Library have been used in the literary search. Keywords used were recovery, fluid balance, fluid therapy, water-electrolyte balance, rehydration, dehydration, hydration, exercise, physical activity, resistance training, activity, sports, training, coconut water in varying combinations, in order to cover as wide area as possible. MeSH terms and translation software have been used.

Selection criteria: Human studies of RCTs published in English or Swedish. Studies conducted in healthy adults (> 19 years) were included. Articles published more than 15 years ago and articles where dehydration is not due to physical activity were excluded.

Data collection and analysis: Three RCTs were included for review and assessment. Quality were examined using SBU's "Mall för kvalitetsgranskning av randomiserade studier". Evidence Grading for the selected outcome measures was based on "Summary of evidence forms" based on GRADE.

Main results: Three trials were included and form the basis of the results of this review article. One study indicates that coconut water had better fluid retention than water after physical activity. Other studies show no significant difference between the drinks.

Conclusions: After having reviewed and assessed the existing literature available on the subject, the conclusion is that there is moderate evidence that coconut water is not preferable to water or sports drinks as recovery drink after physical exercise.