

Athletes recover more quickly with carbohydrates

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Researchers at the University of Bath report that the best way for athletes to recover after exercise is to eat a small amount of carbohydrate regularly.

Dr. James Betts, from the Human Physiology Research Group within the University's Department for Health, reviewed evidence on post-exercise nutrition to find out which nutrients are most important for recovery and why.

He focused on the role of dietary carbohydrates for effective recovery from sports ranging from running to cycling to resistance exercise, which all point towards the importance of foods or supplements which rapidly increase blood sugar levels, which should be consumed as soon as

possible after exercise.

But far less is known about how athletes should continue their eating strategy later into recovery.

Dr. Betts' review showed that feeding at 15–30 minutes intervals may help the body to recover more quickly than if the same foods are ingested less frequently.

He also found that a small amount of protein can offer some added benefits for recovery, partly because it increases the insulin response to feeding and therefore alters how the body handles the ingested [carbohydrate](#).

Dr. Betts said: “Many athletes are required to train or compete on more than one occasion within a single day and so need to maximise their recovery with a limited time.

“The results of our review show that the best nutritional strategy to adopt during exercise involves ingestion of carbohydrate without added protein. However, it appears that nutritional requirements may differ after exercise because including a small amount of protein can be beneficial for recovery, particularly if carbohydrate has been ingested at below the recommended amount.”

The summary of studies shown in the review indicates that for every hour of recovery [athletes](#) should aim to ingest one gram of carbohydrate per kilogram of lean body mass in order to maximise recovery.

Dr. Betts added: “This recommendation is therefore easily calculated, with a 70 kg (154 lbs) runner ingesting just under 300g (11 oz) of carbohydrate over the first four hours after [exercise](#), but is less easily consumed in practice given the large volume prescribed. If rapid

recovery is therefore a focus during intensified training, my advice would be simply to ingest a high carbohydrate diet and be aware that the quantities your muscles require are likely to exceed your desire to eat them.”

Provided by University of Bath

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