

# Getting off the BLOOD SUGAR roller coaster



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Blood sugar irregularities are responsible for dips in energy and inconsistent performances. **Marcus Webb** informs us of simple strategies to manage the sugar roller coaster.

**Y**ou know that your body needs energy to perform well, and often the quickest way to get your fix is to down a sugary snack or glucose-based energy drink. The problem is; the fix is quick, but the backlash effect on the way you regulate your energy metabolism may cause you bigger issues in the long run. By eating or drinking sugary boosters, your body experiences significant rises in blood glucose levels which, in turn, triggers the release of the master blood sugar regulating hormone, insulin. True to form, insulin effectively clears the excessive glucose from the blood, but in doing so, induces a relative sugar drop, causing you to feel fatigued, weak and generally 'out of it'. As a result, you reach for another energy booster and the cycle repeats itself. Over time, your energy regulating mechanisms become supersensitive to your blood sugar levels and you find it harder and harder to train and take part in sports without your energy drink close to hand.

The secret to regaining control over your wayward blood sugars isn't difficult - it just takes a little planning and some basic knowledge about what's good and bad to eat, and how to get the best from a few key supplements. When it comes to food, don't be fooled by the idea that what is natural is always good. Bananas and orange juice may sound like a healthy option, but these deliver minimal protein or dietary fibre, and their carbohydrate load rapidly becomes glucose, pushing the roller coaster into free-fall again. In the future, consider taking a handful of nuts along with that banana.

Sugar balancing foods need to deliver protein, fat and dietary fibre in conjunction with carbohydrate. To achieve a steady sugar level optimal for sporting performance, you don't have to give up the carbohydrates, but you do have to offset them with protein, fat and fibre. The other upside to this combination, thanks to the effects of proteins on the satisfaction centres within the brain, is a reduced tendency to snack, typically on the wrong things. In essence, a meal that contains a good protein balance causes us to eat less and become far less dependent on carbohydrates. In addition to this, a higher protein intake has also been associated with a feel-good factor that has been linked to improved levels of the happy-hormone, serotonin. Typical dietary protein additions could include fish, meat and poultry, but don't forget that there are plenty of non-animal-derived proteins such as nuts, Greek yoghurt and beans. If you want to push up the vegetarian proteins from sources such as lentils, soya beans and other pulses, feel free to do so, but you may have to reduce other carbohydrate foods to compensate. Vegetable protein typically comes as a double act, combining carbohydrate and protein in one, so you don't want to eat a meal that delivers a carbohydrate double-whammy.

While dietary fat is often considered the enemy of any

sports person, keep in mind the importance of essential fatty acids on general health. When it comes to oils and fats, the issue is one of quality and type. Monounsaturated and polyunsaturated fats, such as olive oil and oils found in nuts, grains and fish, not only contribute to energy metabolism without influencing blood sugar levels, but they become incorporated into the very fabric of our body. Diets rich in these oils are believed to protect tissues from the ravages of inflammation and contribute to the flexibility of ligaments, tendons and blood vessels.

Over the years, nutritional research has identified a number of specific trace elements and vitamins that appear to offer great blood sugar regulating potential. When reviewing the data on micronutrients, chromium always jumps out as being a key trace mineral needed to maintain healthy blood sugar levels. It appears that chromium enhances the actions of insulin and is considered to be a beneficial trace mineral for those with glucose irregularities. Interest in vanadium, another trace mineral, was sparked when, in 1985, it was shown that when added to the water of diabetic rats, it actually restored their blood glucose levels to normal.

Subsequent studies using vanadium sulphate have supported this earlier finding, and it should be a key trace mineral in any multi-formula taken to help support a healthy blood sugar balance. Finally, if we look to traditional food-medicine aids for blood sugar regulation, cinnamon and bitter melon (*Monardica charantia*) have stood the test of time for effectiveness and safety. In a fairly recent study, both were shown to help balance the glucose levels in people suffering from type-II diabetes, and both may have potential in a balanced sports nutrition plan, where additional support for blood sugar regulation is needed.

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## ABOUT THE AUTHOR

Marcus Webb, BSc(Hons), ND, DO, is an osteopath and naturopath with a keen interest in integrative nutrition. His holistic approach has led him to develop effective techniques

for managing musculoskeletal pain using a combination of osteopathic care and acupuncture needling techniques, along with dietary and nutritional advice. He is on the medical advisory board of the Fibromyalgia Association (UK) and the editorial board for the open source publication, *Natural Medicine Journal*. His North London multi-disciplinary clinic's website is [www.hadleywoodhealthcare.co.uk](http://www.hadleywoodhealthcare.co.uk).