



Daniel Mencer, CPT, LSFC, Nutrition Certified

www.realufitness.com

(858)344-2834

Cardio Myths Meet Current Science Based Cardio Truths

Venice Nutrition/Mark McDonald

THE 5 MYTHS ARE:

Myth 1: You can eat as many carbohydrates as you like since you exercise and train so hard.

Truth: There is a great saying “No work out can out work a bad diet”. The reality is that too much of anything will yield negative results. ALL Carbohydrates are broken down to sugar and too much carbohydrate intake (even healthy ones) will spike your blood sugar levels, cause an over release of Insulin and cause you body to store fat. Take a look around you and watch the people you know who overeat carbohydrates and exercise a lot, most of the time they have higher body fat levels and lack muscle tone. This is due to the overconsumption of carbohydrates and working at too high of a heart rate for too long of a time.

Everything needs to stay in balance. Your body is a feed as it goes machine. The best way to look at this is by taking a baby's feeding routines into account. A baby will feed every 3 to 4 hours, eating balanced meals of all three nutrients - Protein, Fat and Carbohydrates, stop when satisfied and begin eating again when it is hungry. Our Nervous System uses Glucose (sugar) to create energy, so it relies on a steady balanced supply. When a baby grows (or you workout more one day than your other days), the body will need more fuel. It won't only need carbohydrates... it requires more balanced meals. The combination of Protein, Fat and Carbohydrates within each meal creates a hormonal balance of your blood sugar levels which will maximize your results.

Optimal Blood Sugar (Homeostasis)

1. Increased energy and heightened mental alertness
2. Breakdown of body fat (lipolysis)
3. Increase of lean muscle mass which leads to a faster metabolism
4. Reduced sugar cravings



Myth 2: During high intensity cardiovascular exercise (Heart Rate above 160 BPM) of extended duration (60 minutes and above) you should eat many more carbohydrates before, during and after exercise to ensure you have enough energy to maximize performance. (I will do my best to keep this answer as non scientific as possible)

Truth: Your body does require more overall Calories (carbohydrates, protein and fat) during high intensity exercise due to the fact that you are mostly burning glucose during the activity. The old philosophy is that loading up on Carbohydrates before an event would maximize your glucose (sugar) reserves for the activity. Unfortunately that is not the case. When too many carbohydrates are consumed your body will store fat and some of the glucose will also be stored to be utilized for energy. The challenge with this is that the stored glucose (sugar) in muscle tissue lacks something called a Glucose 6 Phosphate, all this means is that the sugar in each particular muscle can only be used for that muscle and cannot be accessed for blood sugar.

So any extra glucose your body requires will be taken from the amino acids (protein) in your muscle mass. In essence, your body begins to cannibalize itself. For these reasons, carbohydrate loading before, during or after an event will completely work against you.

Of course, you definitely need to feed yourself before, during and after the training. The key is to feed yourself a balanced meal of Protein, Fat and Carbohydrates - preferably low glycemic ones - and high quality food before and after training. During High Intensity Cardio of extended duration training (marathon, triathlon, extended high intensity cardio, etc...) you are best to either eat a piece of a protein bar or a have a portion of a protein shake every 15 minutes. Make sure the protein bar and protein shake match your balanced nutrient ratios.

This type of consistent feeding will provide your body with a steady supply of Glucose. It will also keep your liver Glucose stores full. Keeping these stores full is critical because the Glucose found in the liver is the only stored Glucose that can be converted into blood sugar. Now, the liver can only hold approximately 400 grams of glucose at any given time... This is why Carbohydrate Loading will not work.

Highest Quality: Least Processed and Least Refined		
Protein	Carbohydrates	Fats
Beef Chicken - Fresh & Frozen Egg Whites Eggs Whole Fish - Fresh Turkey Breast - Fresh Soy Beans	Beans - Fresh Brown Rice Fruit Hot Cereals Vegetables Yams	Avocado Flaxseed Oil Natural Nut Butter Nuts Olive Oil
Medium Quality: Medium Processed and Medium Refined		
Protein	Carbohydrates	Fats
Cottage Cheese Canned Meat Cheese Garden Burgers Pre-Packaged Meats Sandwich Meats Yogurt Soy Meat - Packaged	Bread Beans - Canned Cold Cereals Crackers Pasta Potatoes Pretzels	Canola Oil Olives - Canned Processed Nut Butters
Low Quality: Most Processed and Most Refined		
Protein	Carbohydrates	Fats
Protein Powder Protein Bars	Ice Cream (NEUF) Potato Chips Tortilla Chips White Rice	Butter Margarine Mayonaise Salad Dressing Sour Cream

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Myth 3: To maximize performance you must eat a lot of Heavy Carbohydrates (pasta, rice, potatoes, bread, etc) the night before an event.

Truth: The same information from Myth 2 applies to Myth 3. The overall philosophy of carbohydrate loading was to provide the body with a high amount of stored glucose (sugar) so it could utilize these stores during an event. As we discussed above, it is physiologically impossible. This means that all carbohydrate loading will do is store more fat and end up keeping the body's blood sugar levels unstable. You can see this by reviewing the High Blood Sugar Chart provided here.

The answer is to consistently feed your body high quality balanced meals before, during and after the event. This will maximize your performance.

Myth 4: During the event you should be consistently taking in glucose (sugar) supplements to keep your energy consistent.

Truth: I think you are now seeing the theme... all your meals should be balanced and you should feed your body as you go, meaning as you output energy, make sure you are consistently replacing that energy.

All pure sugar replacements do is quickly go through your digestive system and spike your blood sugar levels. Physics says that what goes up must come down... The same thing applies to your blood sugar levels, and that kind of reaction will drastically affect your performance. When using glucose supplements you will eventually have an energy crash. They will also cause irregularities in your blood sugar and affect recovery time.

The solution is to consistently feed on a protein bar or protein shake as explained in myth 2.

Of course, there will be times where you will "Hit the Wall" meaning your body seemed to burn more fuel than you expected and you experience low blood sugar. If this happens, taking a glucose supplement is recommended (always have one available for these types of emergencies) and then evaluate what happened so you can create a solution to prevent it from occurring again.

High Blood Sugar (Hyperglycemia)

1. Meals eaten **too close** together are likely to cause accelerated fat storage.
2. Too **many** calories eaten at a meal **increases** fat storage and **reduces** appetite.
3. Too **many** carbohydrates at each meal will **increase** fat storage and **reduces** energy before, during and after exercise.
4. Insulin is **over expressed** to restablize blood sugar and fat is stored.



Myth 5: After the Event you should eat many carbohydrates so you can refuel your body's low glucose (sugar) supply.

Truth: There is an Old Philosophy about the “Window of Opportunity”, meaning after an event your body is in such a deficit it needs to take in a large amount of food, especially carbohydrates, to recover and maximize performance. Once again this will only lead to spiking your blood sugar and storing fat.

Imagine if there is not a deficit, what if you fed your body correctly and balanced through the event and never hit a blood sugar low?

If you never hit a blood sugar low there is never a need to over consume carbohydrates. The reality is this: *if you can prevent the Ups and Downs of your blood sugar and keep you body in a constant state of homeostasis (internal balance) you will train, perform and recover much more efficiently and effectively.*

Remember these 5 Truths, let go of the 5 myths, and begin implementing some of these suggestions. Do that and you will take your sports performance to the next level!

If you would like a partner to support and guide you daily and help you reach your health, fitness and nutrition please contact me about Lifestyle/Fitness and nutritional coaching. You can call (858) 344-2834 or go to Realufitness.com.

It's never to late or to early to start taking control of your health...it's up to you, start now.