

newsletter

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B L E N D I N G N A T U R E A N D T E C H N O L O G Y



in this month's issue

1. Being a fit rider is important for your horse's health
2. High GI diets for the endurance horse

BEING A FIT RIDER IS IMPORTANT FOR YOUR HORSE'S HEALTH



There are many reasons why you as a rider should also train off of the horse: to concentrate on your own weaknesses and asymmetries without impacting your horse; to add a bit of excitement to your riding program; and to prevent mental or physical staleness. Specific benefits include adding weight-bearing to your training and offsetting psycho emotional strain (the fitter you are, the better your body can cope with heart rate spikes in response to excitement or nerves). Your mental and physical performance will benefit from a program out of the saddle, and you will be more effective at making decisions under fatigue.

Let's take a look at the first reason: Horse-rider asymmetries are well-documented. The asymmetrical loading inherent to the equestrian lifestyle includes movements during which you rotate only one way (e.g., sweeping, mucking). These are not "exercises" that many other athletes endure! We naturally have a dominant and/or preferred side of rotation, but few riders try to offset it. Functional movement screens, which we use to document movement patterns and identify limitations and asymmetries, have demonstrated that right-handed riders have enhanced right shoulder mobility but are limited in their left hip movement. This asymmetry places a lot of strain on a rider's lower back and makes them susceptible to injury.

Dear Equus,

I thought I would send before and after pictures of my horse.

The first was taken a year ago, a few months after he had moved yards. I really wasn't happy with his condition but after reviewing the Equus website and chatting to the very knowledgeable and helpful team at Equus, I decided to start feeding him Equus Safe'n Lite.

He has now been eating Equus Safe'n Lite since April 2015 and the pictures speak for themselves.

Thank you so much, for the great service!

Gill Engbers



Also consider how your symmetry and overall strength and conditioning affect your horse's welfare and performance. In one study we demonstrated that when asked to apply what they consider even rein tensions, riders were placing 34-45% greater tensions in their dominant hand. These unseen asymmetries could be confusing to horses in training, diminishing aid effectiveness and even causing welfare problems.

There is also research that explicitly states that crooked riders can affect the forces transmitted via the saddle to the horse's back, and that an unmounted core fitness training program can level out pressure asymmetries applied while riding. Riders need to consider how, in addition to asymmetries, factors such as their body weight, cardiovascular conditioning, and response to physical stress affect not only their performance and health but also their horses'.

As a rider, think of yourself and your horse as an athletic dyad, where both athletes need peak physical conditioning to perform at their best, to prevent and offset injuries and to improve health and welfare. This can be as simple as doing unmounted mobilization warmups (e.g., runners' lunges, pigeon stretches, etc.) before getting on your horse or committing to regular off-horse training. If you are not sure where to start, seek out a fitness professional's advice. Many commercial gyms might not have access to staff that specialize in rider fitness, but you can share the following three points with them to help you in your fit rider journey:

- 1. Riders need to be able to stabilize their core in response to unexpected stimuli.** This is tricky (but not impossible) to replicate off the horse. You might start with stabilization and balance work and progress to partnered resistance band work where you cannot predict where or when the destabilization will occur. This is commonly called perturbation training or reactive core training.
- 2. Riders need to be as symmetric as possible** for their own health, their horse's back function, and the tensions transmitted through the reins. They need to be able to move their limbs independently from their core. Riders should work bi- and unilaterally with resistance to discover and develop their weaker areas.
- 3. In some equestrian sports, riders must make risky decisions when fatigued,** so incorporate cognitive challenges after being subjected to high levels of exertion. Some riders could experience "joint freezing," where they can only concentrate when tense (common in dressage, particularly for eventers). In more advanced stages of off-horse training, riders can try memory recall when completing challenging tasks.

ABOUT THE AUTHOR

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Visit Jenni's facebook site Eventfit for more rider tips and exercises

<https://www.facebook.com/eventfitbyjennidouglass>

HIGH GI DIETS FOR THE ENDURANCE HORSE

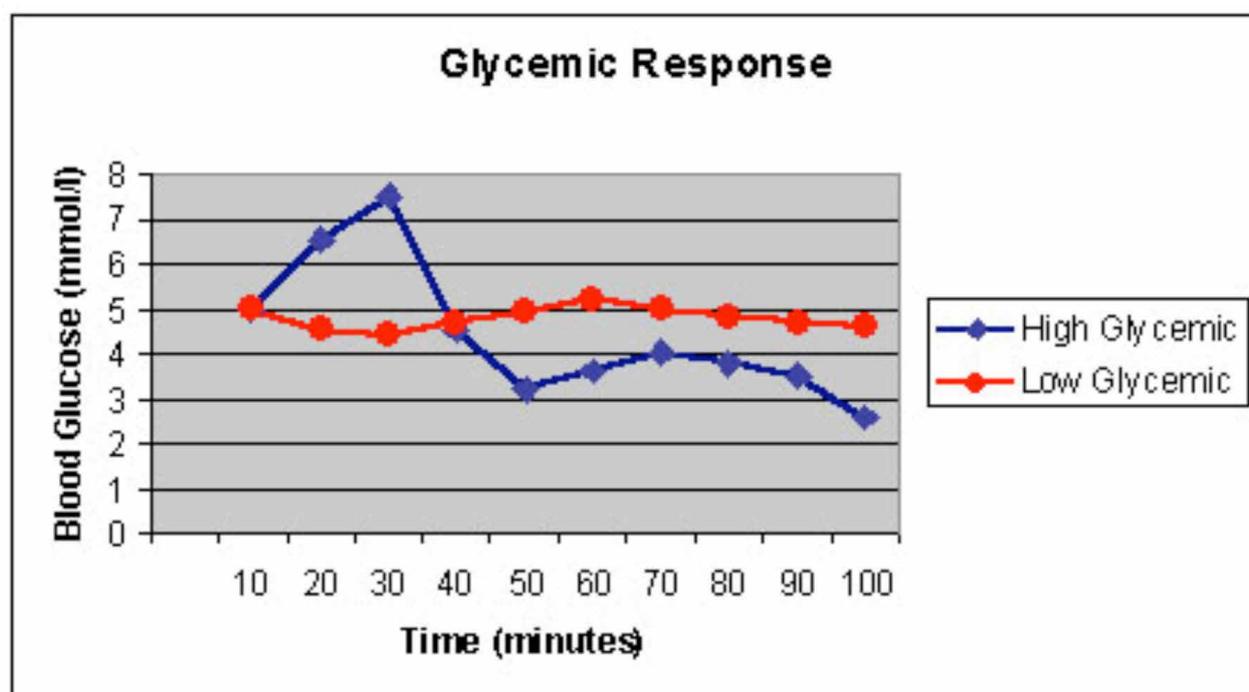
What is the glycemic index?

The glycemic index (GI) is a system devised by Canadian scientists in the early 1980s used to list carbohydrates based on their effect on blood glucose levels after their ingestion.

Glucose is of extreme importance as it is the primary energy source for muscle contraction. By knowing what the GI index of available feeds is, we are able to provide the right energy supply at the right time. Glucose is absorbed into the bloodstream after a meal, whereby the production of insulin is triggered. Insulin is an anabolic hormone that encourages uptake of glucose into the liver and muscle for storage as glycogen and into adipose tissue to be stored as fat.

What is the difference between low-GI and high-GI feeds?

Carbohydrates that break down quickly during digestion are termed "high GI" while those that break down slowly and release glucose gradually are termed "low GI". High-GI feedstuffs include (but are not limited to) commonly used cereal grains and molasses, whereas low-GI feedstuffs are typically more fibre- and fat-containing products.



How can the GI index help my horse during a race?

From the graph it is evident that the GI can affect the primary fuel supply quite dramatically – note that this graph depicts a horse that is at rest. Consuming a high-GI carbohydrate immediately before a race or workout can cause the blood sugar to spike, then quickly fall below optimal levels leaving the horse with little energy for continued work. Although a low-GI carbohydrate can help stabilise the energy release at the start of the race, this will not be of much help later in the race once the energy is depleted and quick-release energy is required. This highlights the critical importance of providing the right kind of energy supply at the right time.

How can I put this into practice for my endurance horse?

The most important pre-event consideration is to ensure that one has topped up the horse's carbohydrate stores with a low- to moderate-GI feed. This will assist in promoting positive effects in the beginning, including minimising the hypoglycemia that occurs at the start of exercise, increasing the concentration of fatty acids in the blood, increasing fat oxidation and reducing reliance on carbohydrate fuel. This carbohydrate sparing helps to prolong the endurance ability. Later in the race, however, a high-GI feed formulated to shuttle glycogen into the muscle cells quickly and replenish the depleted glycogen reserves is needed.

Can a high-GI feed cause an “energy spike” with negative after effects?

The insulin response to carbohydrate ingestion is suppressed during exercise. A lot of human research has focused on the effect of consuming carbohydrates during exercise to slow the depletion of the body's carbohydrate stores and thus delay the onset of fatigue. Exercise-induced elevation in epinephrine depresses the release of insulin from the pancreas. Thus, concerns about carbohydrate feedings with a high-GI increasing insulin and depressing fatty acid availability is less likely to occur when fed during the event.

How can a high-GI feed help my horse during training?

Equine research in this field is unfortunately limited but human research clearly shows that consuming carbohydrates within the first 30 minutes after exercise optimises the replenishment of glycogen stores, whereas after an hour or longer, the replenishment process slows down considerably.

Making use of this “window of opportunity”, while the muscles act like sponges in sucking up glycogen, is important for effecting optimum performance when in hard training. This is also very important during multi-day events as feeding a high-GI feed within the first half hour after the race can play a role in more effective refuelling for the next day.

Equus Race n Replace

Equus Race'n Replace is a high Glycemic Index (GI) supplement used for horses which require elevated levels of energy. It has specifically been designed for horses participating in events which cause carbohydrate depletion resulting in the need for “fast release” energy to replenish the lack of available glycogen in the system quickly and efficiently.

Race 'n Replace consists of a combination of fully cooked energy sources making it a very unique, high energy feed with the ability to shuttle glycogen into the muscle cells much more quickly than other feeds. Because the starch is cooked it can prevent an overflow of undigested starch into the hindgut which often causes digestive disturbances or even tying up.

Although specifically designed with a low Protein content for ease of digestion during intense workloads, Race 'n Replace contains very high quality protein with added lysine and other essential amino acids critical for muscle repair during strenuous events. This high energy ration is also presented in a fibre base and has a good electrolyte balance.

Article compiled by Hannah Rousell (M.Sc Equine Science). For further reading on high-GI feed – www.equusfeeds.co.za



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For an absolutely free consultation with no further obligation contact our professional consultants to schedule a visit to your yard.

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