



Energy boosting supplements and the iron myth

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science
SUPPLEMENTS
The Equine Nutrition Specialists

My horse needs more energy!



Ingredients sold to boost energy

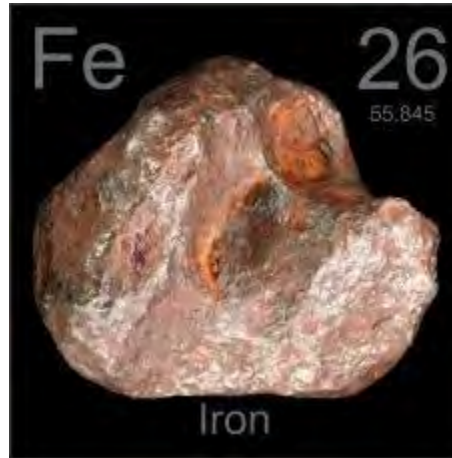
- **Magnesium**
- **B Vitamins**
- **Oats**
- **Sugar**
- **Honey**
- **Ginseng**
- **Ginko biloba**
- **Carnitine**
- **Creatine**
- **Co-enzyme Q10**

Ingredients sold to boost energy

- Magnesium
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- Honey
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- Carnitine
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**None of
these are
effective**

What about Iron?

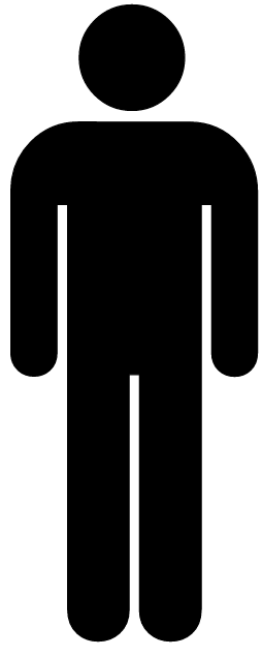


The link between IRON and ENERGY

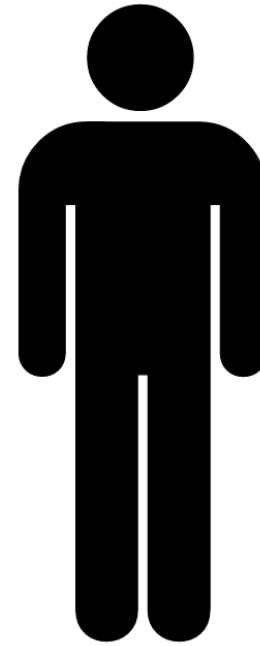


Iron is a component of haemoglobin

Normal



Anaemic

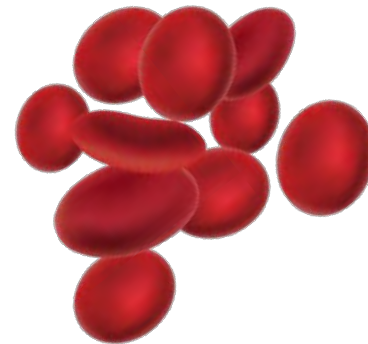


Anaemic



Anaemic people lack energy

Lack of energy = lack of iron?



Iron Supplements for Horses

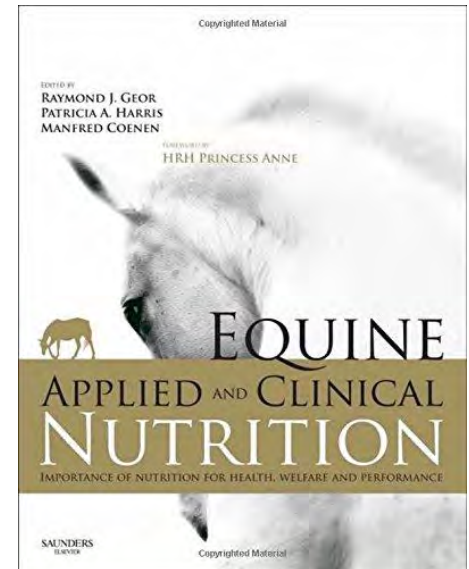
- Iron deficiency in horses is **RARE**
- Anaemia in horses due to iron deficiency is **VERY VERY RARE**
- Horses cannot excrete iron once eaten
- IRON accumulates in body and causes damage
- Supplementing with IRON will have **NO EFFECT** on a horses energy levels and can be damaging



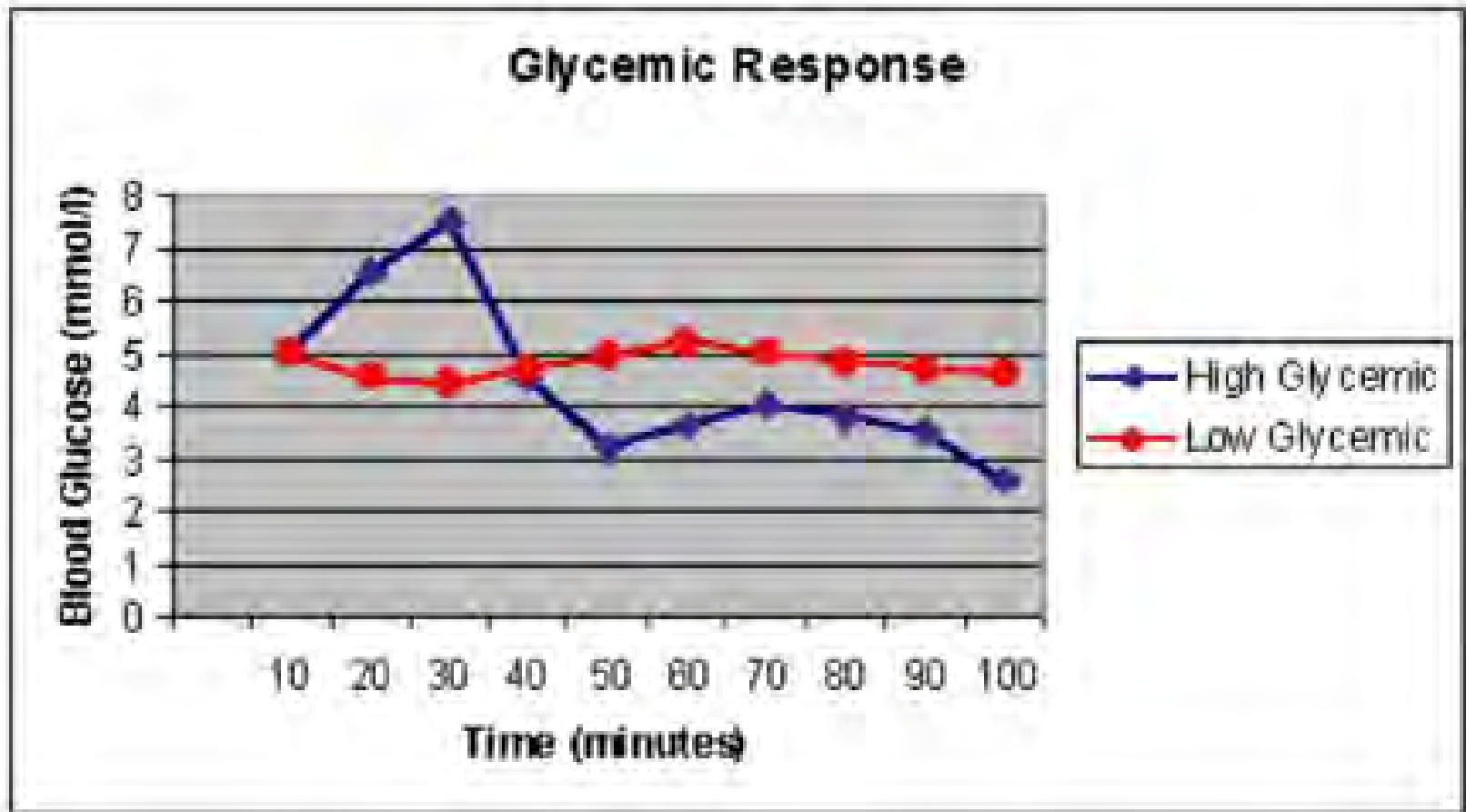
Iron Supplements for Horses

- “There is little rationale for additional iron supplementation”
- “There is no evidence of an increased erythropoiesis [red blood generation] with iron supplementation”

Coenen in Equine Applied and Clinical Nutrition, Saunders (2013)



What can you use to boost energy?



e.g. Maltodextrin, EnerGex, etc

EnerGex



EnerGex

- EnerGex is a unique complex carbohydrate
- Increases blood sugar with only a small increase in insulin
- Ideal for use in days pre-race to maximise glycogen content
- Safe to use in races
- No risk of hindgut disturbance – 100% digested in small intestine
- Alternative to sugar or starch
- 100% digested in the small intestine so cannot cause hindgut disturbance
- Safe for horses prone to laminitis, colic or tying-up





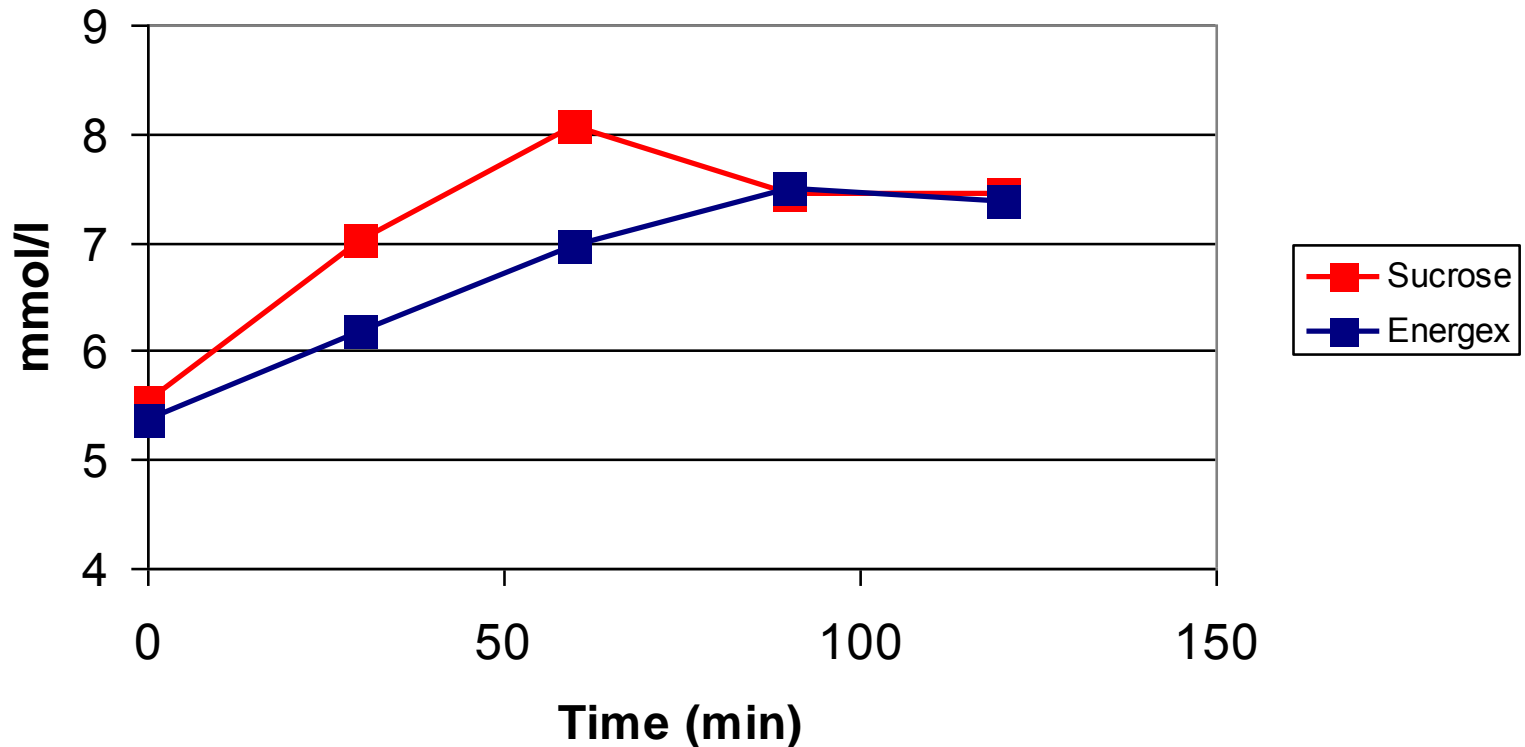
EnerGex Trial

- **Oklahoma State University (Dr Michael Davis)**
- **6 horses were administered either Sucrose or EnerGex in 2 litres of water by stomach tube at time zero**
- **Balanced 3 x 3 cross-over design**
- **Blood samples collected by catheter**



EnerGex Trial

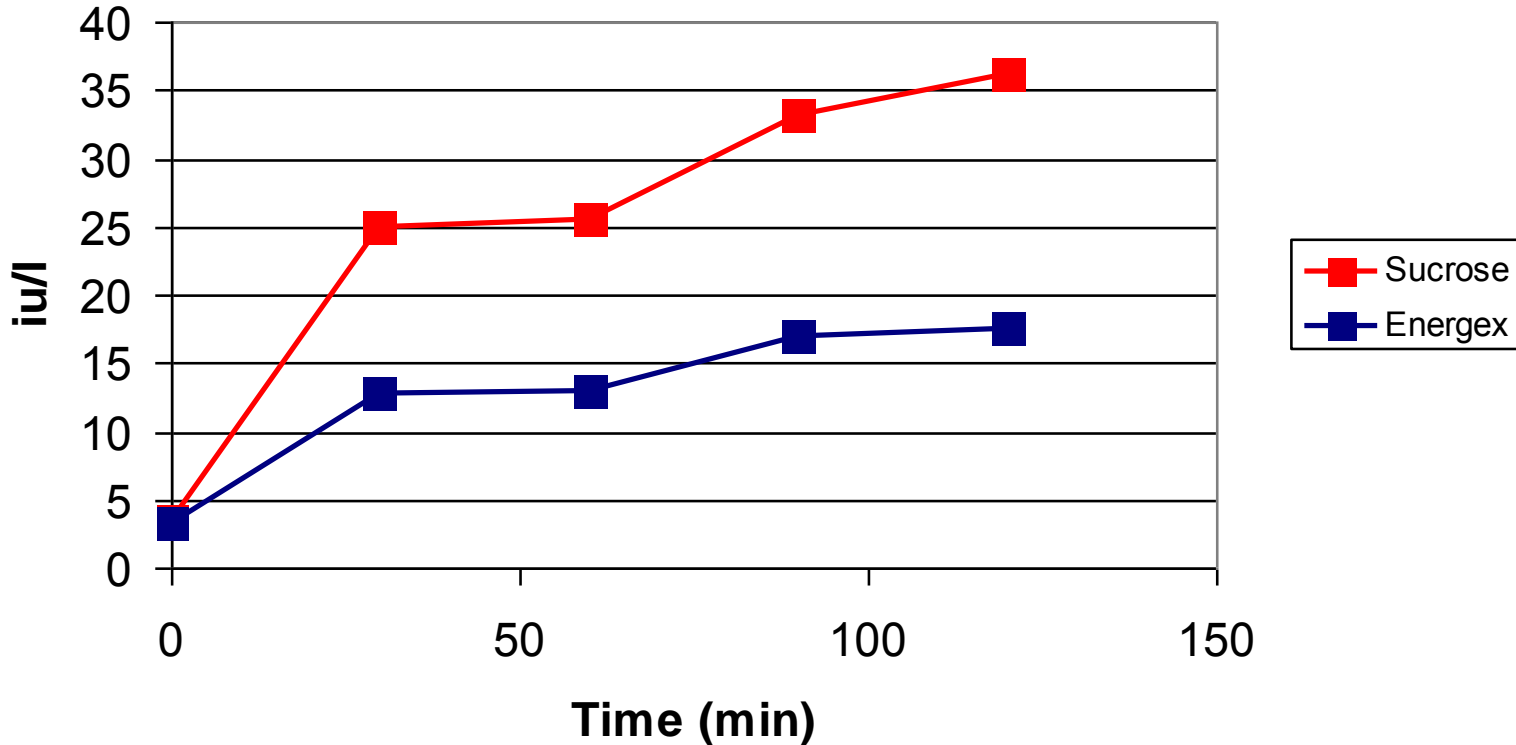
Plasma Glucose



Slower glucose release, lower and later peak with EnerGex

EnerGex Trial

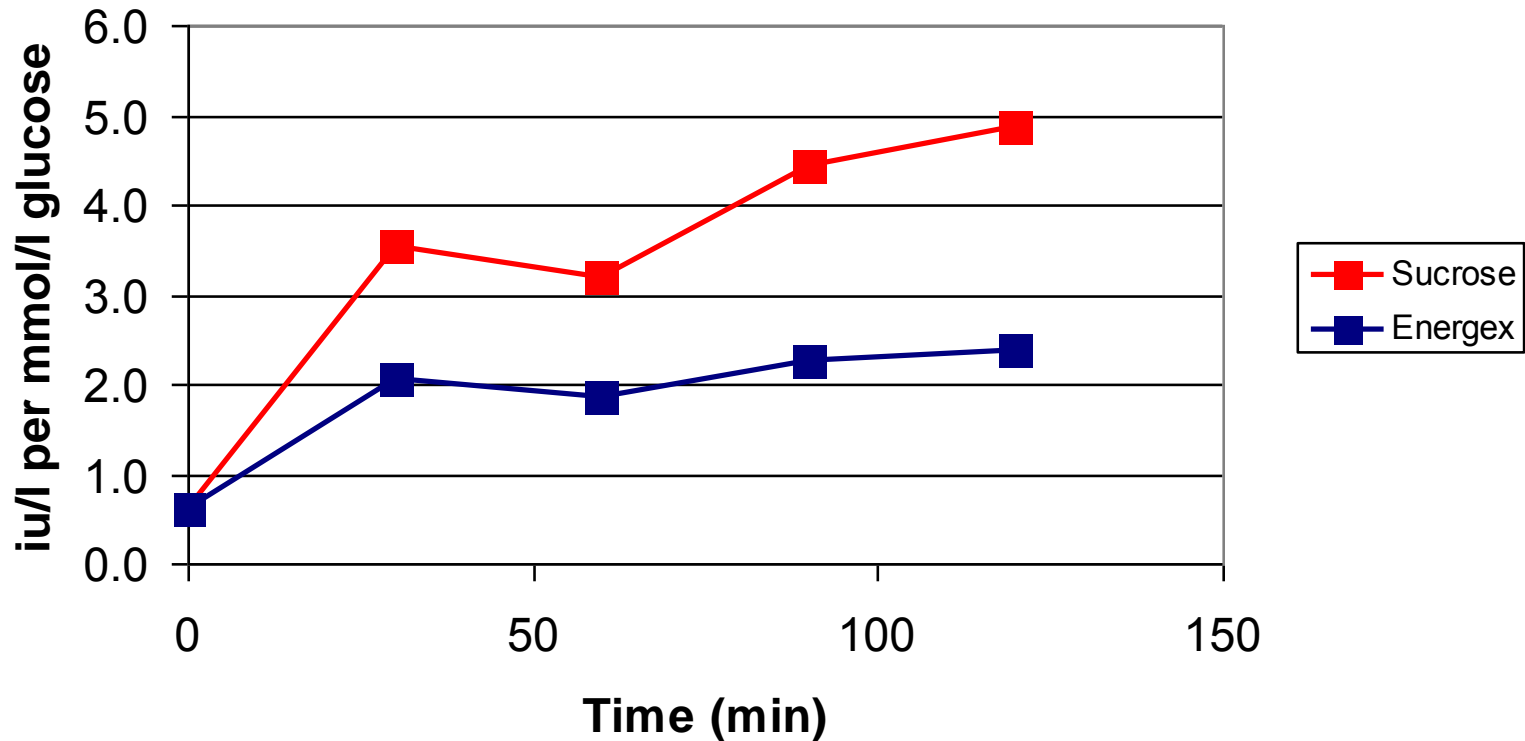
Plasma Insulin



Insulin increase halved with EnerGex

EnerGex Trial

Insulin/Glucose Ratio



Insulin increase per unit glucose increase halved with EnerGex

<http://davidmarlin.co.uk/portfolio/so-your-horse-needs-more-energy-especially-when-competing-energy-boosting-supplements-reviewed/>

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