



# 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

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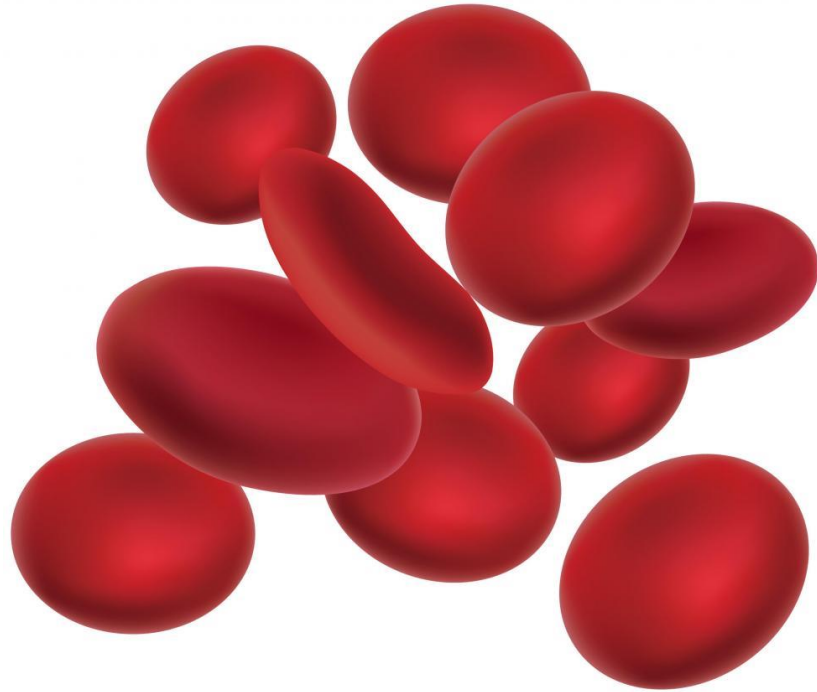
**None of  
these are  
effective**



# What about Iron?

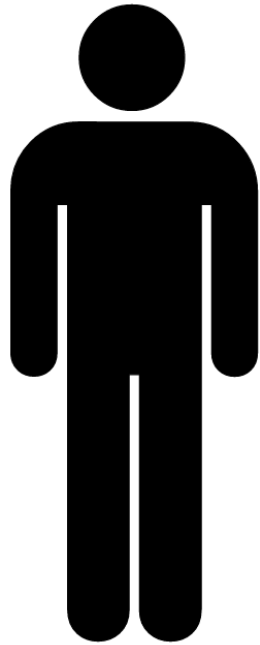


# **The link between IRON and ENERGY**

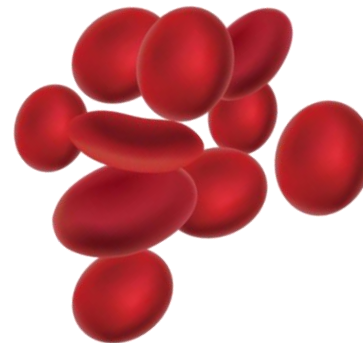
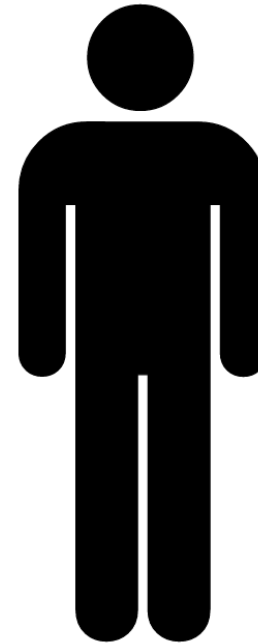


**Iron is a component of haemoglobin**

# Normal



# Anaemic

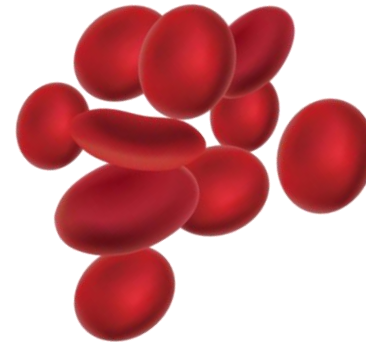


# Anaemic



Anaemic people lack energy

Lack of energy = lack of iron?





# Iron Supplements for Horses

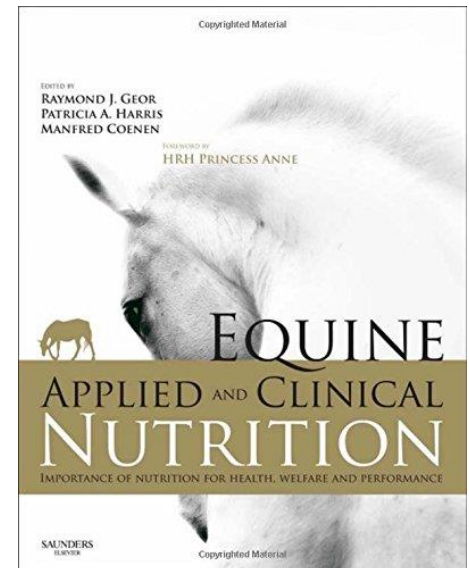
- Iron deficiency in horses is **RARE**
- Anaemia in horses due to iron deficiency is **VERY VERY RARE**
- Horses cannot excrete iron once eaten
- IRON accumulates in body and causes damage
- Supplementing with IRON will have NO EFFECT on a horse's energy levels and can be damaging



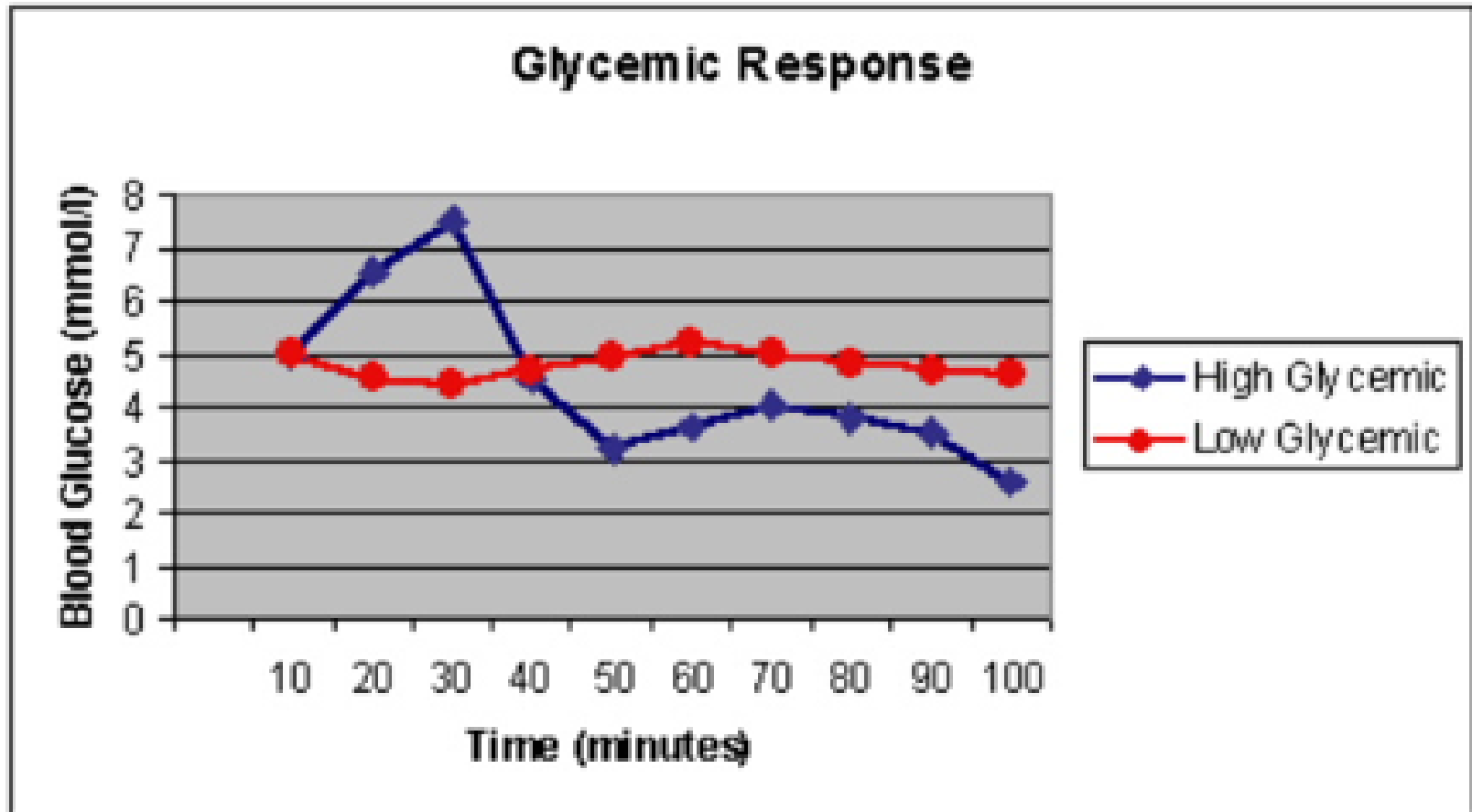
# Iron Supplements for Horses

- “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

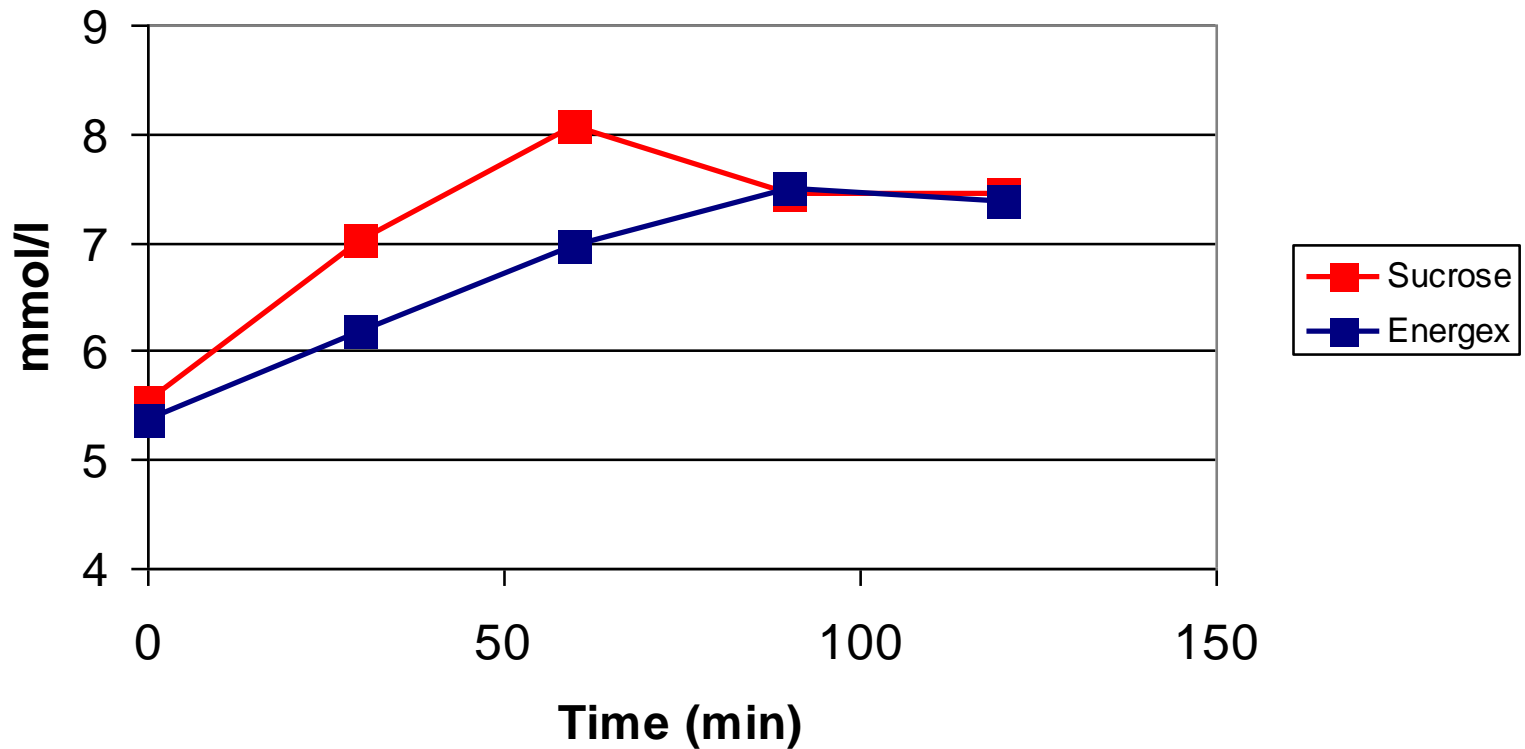
- Oklahoma State University (Dr Michael Davis)
- 6 horses were administered either Sucrose or EnerGex in 2 litres of water by stomach tube at time zero
- Balanced 3 x 3 cross-over design
- Blood samples collected by catheter





# EnerGex Trial

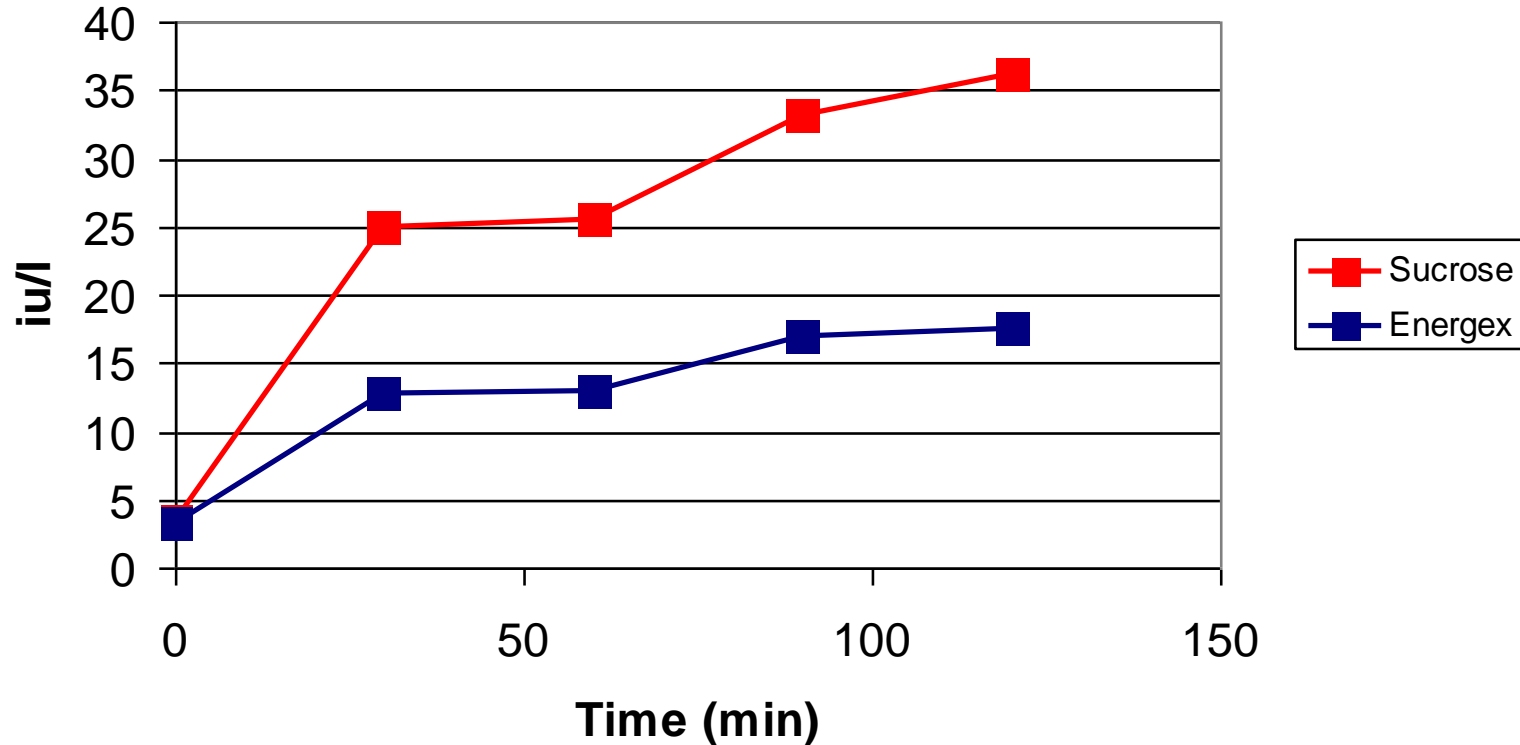
## Plasma Glucose



***Slower glucose release, lower and later peak with EnerGex***

# EnerGex Trial

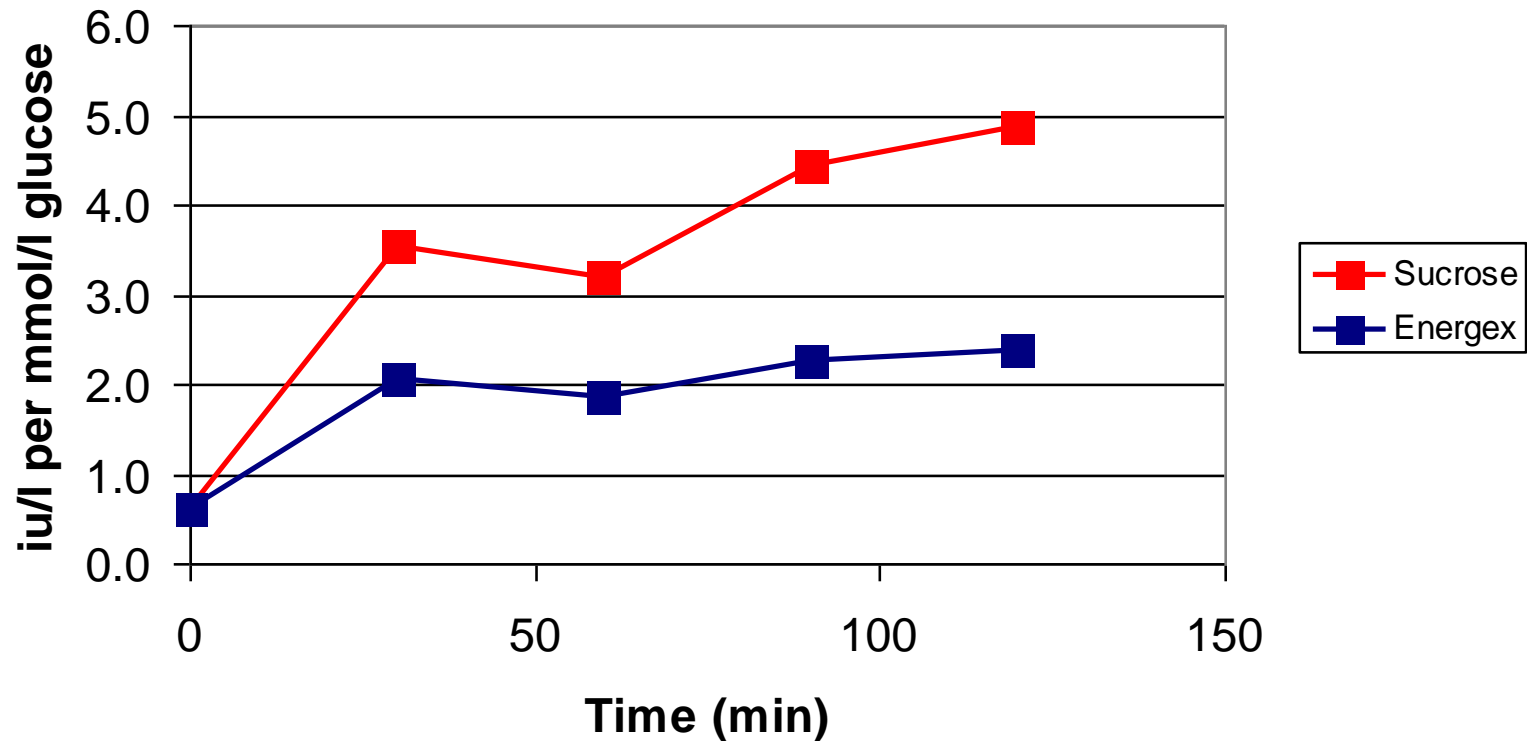
## Plasma Insulin



*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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