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IS GLUCOSAMINE SAFE FOR THE INSULIN RESISTANT HORSE?

Glucosamine is a sugar (glucose) bound to an amino acid (building block of protein). It reduces inflammation and is a precursor to building blocks found in cartilage. Cartilage cells are able to produce glucosamine from glucose, but supplementation is often preferable if your horse is experiencing osteoarthritis. It can be supplemented orally or via injection.

Many horse owners are reluctant to give glucosamine to their insulin resistant horse that has joint pain. This is a valid concern. Insulin resistant people have experienced adverse effects when given high dosages of glucosamine (though the research results are mixed). But since glucosamine is not digested down to glucose, it should not cause a rise in insulin. So what causes the glucose and hence, insulin to rise? Evidently, glucosamine confuses the cells into thinking that *they have enough* glucose. So, glucose from other sources cannot enter the cells. The result can be increased blood glucose, not from glucosamine, but from the diet in general, leading to elevated insulin.

That's what happens in people; we really do not know if the same thing happens in horses. So, use your judgment. If your insulin resistant horse has been taking glucosamine without any problem, continue using it. But if your horse is battling laminitis or equine Cushing's disease, consider getting a joint supplement that does not contain glucosamine. You can safely use ingredients such as MSM, chondroitin, hyaluronic acid, n-acetyl-l-carnitine, cetyl myristoleate, and orthosilicic acid. Or start with two basic ingredients – vitamin C and omega 3 fatty acids -- especially in the older horse (who no longer produces the same level of vitamin C as when younger). Vitamin C is used for collagen

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production (which covers and cushions the surfaces of opposing bones) and omega 3s are potent anti-inflammatory agents.

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