# SPECTRA EQUINE NEWS

PROFESSIONAL EDITION

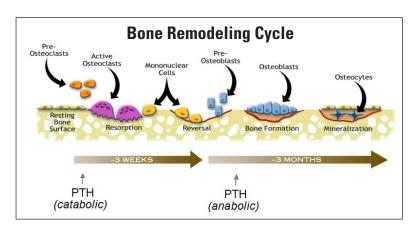
Volume 4

# The Importance of Controlling Inflammation in Joint and Bone Health

Subchronic inflammation is believed to be a contributing factor in the disruption of bone remodeling, a process which is crucial to healthy bone mineral density (BMD). Several studies have shown an inverse relationship between C-Reactive Protein (CRP), a marker for inflammation, and BMD. Controlling inflammation is a key factor in protecting the equilibrium between bone resorption and bone deposition.

Bone remodeling involves the relationship between osteoclasts, cells responsible for removing bone (bone resorption), and osteoblasts, cells responsible for replacing the lost bone with new bone matrix (bone formation).

As the delicate equilibrium between bone resorption and bone formation is offset by the excessive osteoclast activity (osteoclastogenesis) characteristic of the older horse, risks of lower bone mineral density and fracture can increase.<sup>1</sup>



### **Calcium Fructoborate Reduces Inflammatory Markers**

A growing body of science has suggested that bone loss is fueled by age-related inflammation. Subclinical inflammation, even at lower levels, appears to uncouple bone formation from resorption, leading to excessive bone resorption. Published clinical research has shown that calcium fructoborate, a plant-mineral complex, significantly reduces serum levels of CRP and other inflammatory markers.



### References 1 Thomson BM, Mundy GR, Chambers TJ. (1987) Tumor necrosis factors alpha and beta induce osteoblastic cells to stimulate osteoclastic bone resorption. Journal of Immunology. 138 775-779.

#### **What is Calcium Fructoborate?**

Calcium Fructoborate is a natural molecule found in fruits, vegetables and legumes. It consists of calcium, fructose and boron. When most people think of bone health, they think of calcium, but boron nutrition is critical to the mineral portion of bone. Boron has been shown to alleviate symptoms of physiological response to stress as well as discomfort and stiffness associated with osteoarthritis and bone loss. It has also been shown effective as an adjunct treatment for osteochondrosis in animals and humans. Calcium Fructoborate is available in a soluble, nature-identical, clinically tested, proprietary branded ingredient called ReVITAL®.

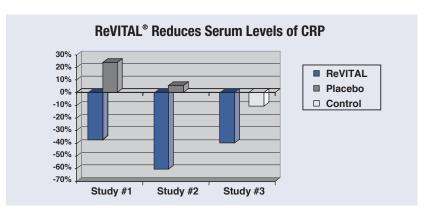
## Clinical Studies Show ReVITAL® Branded Calcium Fructoborate Ingredient Represents a Breakthrough.

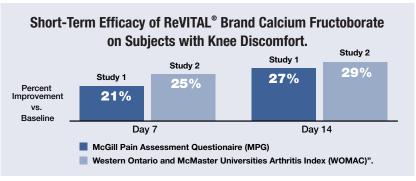
#### **Reduces Inflammation by up to 60%**

Three clinical studies showed that C-Reactive Protein (CRP), a marker for inflammation, was reduced by between 37% and 60% through the addition of **ReVITAL®**, a proprietary branded calcium fructoborate ingredient. These studies also showed a 19% increase in endogenous levels of Calcitriol, the active form of Vitamin D3.

### Fast-Acting Joint & Mobility Support in as Little as 7 Days

The **ReVITAL** branded ingredient is also supported by 10 years of research establishing both safety and significant improvement in flexibility and joint comfort.





## **ReVITAL®** is Available for Horses in the Unique Veterinary Nutraceutical FLEXAN®, by Spectra Animal Health.







Equine Joint Health & Mobility Support





- Proprietary ReVITAL® Brand CFB molecule
- Proprietary HYAMUNE® brand, high purity, pharmaceutical grade HA
- High purity, clinically studied MSM
- Proven to reduce inflammatory markers
- Potent antioxidants, key amino acids and minerals
- Supported by clinical studies relative to bone and joint health
- Fast acting with long term benefits

#### **How Supplied**

Spectra Code	Product	Size	# Days Supply
40325	FLEXAN® Equine	32 oz. (946ml)	20 to 32

**Directions:** Shake well before use.

**Loading Period:** Mix 0.5 oz. (15 ml) twice daily per 500 lb. (approx. 225 kg) animal weight into feed for the first 14 consecutive days. **Maintenance:** Mix 0.5 oz. (15 ml) daily per 500 lb. (approx. 225 kg)

animal weight into feed.

**Expect Results:** Within 7 days.



