

# Using evidence based medicine when choosing a joint supplement?

### Parnell's GLYDE™ mobility chews are veterinary nutraceuticals with strong scientific backing.

Evidence based medicine is a key aspect of veterinary medicine. As veterinary advice experts, veterinarians expect that all product claims have been substantiated through scientific evidence. Unfortunately, veterinary nutraceuticals are not closely regulated, thus leaving many products open to poor quality control and misleading labeling.<sup>1</sup>

The American Veterinary Medical Association has defined nutraceutical medicine as "the use of micronutrients, macronutrients, and other nutritional supplements as therapeutic agents". The nutraceutical movement is rapidly growing and gaining popularity within the human and veterinary markets. Pet parents are increasingly seeking information on how to introduce nutraceutical medicine into the daily treatment of their pets. Professional bodies such as the AAHA and AAFP are offering advice on integration of nutraceuticals into treatment paradigms.

At Parnell, we take veterinary pharmaceuticals and veterinary nutraceuticals seriously and this is why we developed Glyde Mobility Chews for treatment of osteoarthritis (OA). Unlike many of the products on the nutraceutical market, we produce our product within facilities that are compliant with Good Manufacturing Practices (GMP) and have a US NASC Preferred Supplier seal. This measure helps us maintain and assure a high level of quality control within our product manufacturing.

Glyde Mobility Chews contain three active ingredients that contribute to their efficacy. These three ingredients that provide cartilage building blocks are glucosamine, chondroitin and green lipped mussel (GLM) powder. GLM also provides strong anti-inflammatory activity and has been shown to reduce and repair damage to cartilage. All three ingredients have been scientifically proven to be effective at controlling the signs of osteoarthritis, slowing disease progression and restoring the health of the joint.

It is well known that glucosamine and chondroitin are considered the main building blocks to maintaining a healthy joint. These two compounds have been the basis of many joint supplements and have withstood the test of time. Many scientific studies have been performed on these compounds, both individually and in combination, with statistically significant improvements in signs of OA in dogs.<sup>4,5,6</sup>

## Science Behind GLYDE

#### Glucosamine HCL

- Reduces pain, improves joint function and mobility and reduces OA progression<sup>17</sup>
- Inhibits cartilage degradation<sup>15</sup>
- Reduces joint space narrowing ir the knee<sup>12</sup>
- Precursor of glycosaminoglycan production<sup>9</sup>
- Stimulates glycosaminoglycan synthesis<sup>6</sup>
- Increases proteoglycan production<sup>11</sup>
- Suppresses neutrophilic inflammation<sup>10</sup>
- Good bioavailability and absorption<sup>12</sup>

#### Chondroitin Sulfate

- Reduces pain, improves joint function and mobility and reduces OA progression<sup>17</sup>
- Inhibits synovial membrane inflammation<sup>16</sup>
- Predominant glycosaminoglycan use by chondrocytes to produce proteoglycans<sup>14</sup>
- Stimulates glycosaminoglycan synthesis
- Maintains viscosity of synovial fluid 18,26
- Good bioavailability and absorption<sup>12</sup>

#### **Green-Lipped Mussel**

- Significant improvement in clinical signs of osteoarthritis<sup>20</sup>
- Protects against induced arthritis and reverses existing inflammation<sup>19,22</sup>
- Reduces joint pain and swelling<sup>20</sup>
- Improved force plate measurements<sup>21</sup>
- Results in increased plasma omega-3 fatty acids<sup>21</sup>
- Potent anti-inflammatory activity<sup>22,13,23,24,25</sup>



The data for human use is also very strong, and the European League Against Rheumatism (EULAR) rated Glucosamine and Chondroitin in their guidelines for human knee OA with the highest evidence grade and the highest recommendation strength. It is therefore possible to use glucosamine and chondroitin in dogs with confidence that they are effective.

Green lipped mussel is known to be very high in omega-3 and other fatty acids and provides a strong, natural anti-inflammatory effect to the joint.<sup>7</sup> When analyzed, GLM was found to contain glycosaminoglycans, amino acids, omega-3 fatty acids including docosahexaenoic acid (DHA), eicosapentaenoic acid (EPA) and eicosatetraenoic acid (ETA), zinc, copper, manganese as well as vitamins A, D3, E and B128,13. The concentration of New Zealand green-lipped mussel found in our chews is higher than that used in studies demonstrating efficacy in dogs with osteoarthritis. When added to the glucosamine and chondroitin, GLM creates a well-rounded supplement that targets the OA disease itself as well as secondary pain and inflammation.

When considering adding an OA joint supplement to your product line, I strongly recommend you consider Glyde. This product, available through licensed veterinarians, is well received by vets and pet parents alike. Pet parents particularly appreciate the attention to detail that is demonstrated by the heart shaped chew.



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