

Proteolytic Enzymes, Part II

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In the last few years I have had a unique opportunity to work side by side with chiropractors in a hospital setting at Buena Park Doctors Hospital and on beaches across the country caring for the athletes of the Association of Volleyball professionals. Thus, I have observed some of chiropractic's best clinical and practical doctors. In conversations with these groups, I found that the majority did not use or, in my opinion, underutilized proteolytic enzymes in their practices. When discussing why they did not use enzymes, their main reasons were as follows:

1. Questions about absorption. Last month, in Part I, we clearly demonstrated that (a) enterically-coated proteolytic enzymes can reach the small intestine intact;¹ (b) they are absorbed from the small intestine not as individual amino acids, but as partially or fully intact enzymes;² (c) they do have unquestionable anti-inflammatory effects;³ (d) their presence can be measured in a variety of ways, including serum analysis^{4,5} and clotting time.⁶
2. Questions about dosing. Many chiropractors I talked to stated that they had tried proteolytic enzymes but they did not get the results. Furthermore, they stated that they followed label instructions closely, which must be conservative due to various regulatory agencies. Unfortunately, following conservative label instructions almost always guarantees a clinical failure. Taussing states in his paper on bromelain that its effects are dose dependent.⁷ Therefore, in order to achieve the desired anti-inflammatory effects when utilizing proteolytic enzymes, doctors must dose aggressively. It is a good idea to emphasize that the natural proteolytic enzymes you are giving the patient do not have the side effects so commonly seen in aspirin and other non-steroidal anti-inflammatory medications.⁸
3. Questions about weights and measures. Enzymes manufacturers have no one to blame but themselves for this mess. There is no industry standard of measurement for proteolytic enzymes. While preparing this paper, I called doctors and scientists across the country for help on this confusing topic. The more people I talked to, the more I realized how unfortunate the situation is. For example, if one company sold you vitamin C in milligrams, the next company sold you vitamin C in U.S.P. units, and the next company sold you vitamin C in mild clotting units, you may be unsure how to dose effectively. Add to this the fact that you were not able to convert these various units of measurement to one common denominator, and the result is additional confusion. Obviously, conscientious practitioners are not going to utilize products they are confused about.
4. Questions about activity. Many companies sell enzymes by weight, not activity. Of those that sell enzymes by activity there are, as mentioned above, many different measurements used for activity. This, in turn, raised a valid question about their bioactivity. We have all seen stories about people who buy a vitamin from the supermarket, drugstore, discount house, and health food store, and then test the products, only to find that many do not match their advertised label potencies. From school, doctors know how unstable enzymes can be and, thus, many just assume they are inactive proteins.

I recommend that you only purchase enzymes from companies that will guarantee their potencies with on-demand assays. This, of course, limits you to small quality-conscious companies that cater to the health care professional which, when dealing with proteolytic enzymes, is the way to go. I do not recommend you sending patients to the health food store because (a) they may be using products that do not have the quality control that you are able to demand; (b) you may lose control of their dosing, as well as the next time they are injured, they may try to self treat with enzymes; and (c) most enzymes in the health food store are not enterically coated.

Next month, we will conclude our series on proteolytic enzymes with additional discussion on weights and measurements, including a conversion chart, as well as advice on dosing.

References

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