

Improved Absorption For Vitamin D Resistance Patients

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Sometimes you give the patient what you "think" is the right nutrient and nothing happens. A classic example is the patient who has low serum levels of vitamin D even after months of therapy. One reason for this, according to a small but striking study at the Cleveland Clinic Foundation, is that some vitamin D resistant people are taking vitamin D supplements on an empty stomach or with a small meal, usually breakfast or lunch.

Twenty five people participated in the study, 17 of them were instructed to take the same supplement they had been taking with their largest meal of the day, usually supper. After 2 to 3



months, taking the same vitamin D supplement with the "largest" meal of the day, researchers found that serum vitamin D levels had increased on average by 56.7%. This magnitude of increase was seen across a wide range of vitamin D dosage.

Clinicians are aware that vitamin D is fat soluble and generally it is recom-

mended that vitamin D be taken with a meal containing fats. However, based on this study, it may be best to take vitamin D with your largest meal of the day, which is likely to contain the most fat.

Are you surprised? As people age and their digestive track becomes compromised, the ability to secrete digestive

enzymes decreases, especially HCL. Take a look at this graph. The scale on the left indicates stomach acid secretion in milligrams per hour as it relates to aging indicated at the bottom. The downward slope clearly shows as we age the amount of stomach acid decreases.

Also digesting food takes energy and if someone has been ill for a prolonged period of time their digestive capacity is further reduced. So keep in mind, "older patients who have weakened immune systems may have difficulty absorbing all nutrients even if they are taken at the largest meal."

As you know, fat soluble vitamins A, D, E, K as well as Coenzyme Q must be emulsified by either bile or pancreatic enzymes. But what if the patient's liver is underperforming due to toxic overload, fatty liver or if the bile is not stored properly and released due to gallbladder removal? The issue of reduced absorption is the foundational reason why over 35 years ago Biotics Research made the decision to pre-emulsify their fat soluble nutrients to assure that your patients are getting maximum absorption. Some of the newer forms of Coenzyme Q have enhanced absorption but Biotics showed over 20 years ago that their emulsified form raises blood levels 3 times higher than the dry form.

So it makes clinical sense to use emulsified fat soluble nutrients whenever you can as long as they remain cost effective for the patient. The good news with Bio-D-Mulsion Forte by Biotics Research is that it is the most cost effective form of vitamin D with over 700 drops per one ounce bottle for \$20.00. Each drop of Bio-D-Mulsion Forte contains 2,000 IU of emulsified vitamin D3.

In light of the Cleveland Clinic study and considering patient's compromised digestion and absorption, make sure you have your patient's take their vitamin D at their largest meal and consider using emulsified fat soluble nutrients whenever possible. If you don't see the clinical results you expect in 30 days, consider adding further digestive support.

Clinical pearls like these can be valuable for your patients and are definitely worth considering. Thanks for taking the time to watch this week; and let me add knowing how busy you are, I appreciate those of you who take a moment to respond with comments. Many of you have shared clinical insights and given us positive feedback. Thank you for your encouragement. I always enjoy hearing from you. Have a great week and I'll see you next Tuesday.