



# The GeriJournal

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## **Shake it up Baby**

The latest craze to sweep the nation is called the Pheny-Shake. Nurses across the land are shaking bottles of phenytoin (Dilantin®) suspension with tremendous enthusiasm and vigor.

Why is phenytoin generating all this excitement? I'm afraid it's a response to the tragic phenytoin overdose of Sid Seizure.

Sid's serum phenytoin level skyrocketed because his suspension had not been shaken adequately. His pharmacy had just dispensed a new bottle, and the doctor ordered a serum phenytoin level ten days later. Since the bottle had not been shaken sufficiently, most of the drug had settled on the bottom. The nurses were actually administering "diluted" suspension, and the lab report showed a subtherapeutic serum phenytoin level.

The doctor's next step was to increase the dose. By this time, the volume in the bottle was quite low. When the nurses gave a larger dose of this "super-concentrated" suspension, the resident's

phenytoin level surged upward. Sid became dizzy, had a nasty fall, and fractured his hip. Let's all do the Pheny-Shake to prevent a recurrence of this terrible scenario.

## **Calcium Absorption**

Everyone is paying more attention to bone health and preservation these days. Roughly one-third of our residents receive a calcium supplement each day, and we must do our best to ensure they are well absorbed.

Adding Vitamin D, and splitting the total daily dose of calcium into two administrations are strategies we often use to boost absorption. In spite of our best efforts, however, we often ignore an important interaction which limits the absorption of the most popular calcium supplement, calcium carbonate (CaCO<sub>3</sub>).

CaCO<sub>3</sub> requires the presence of acid in the stomach if it is to be properly absorbed. Drugs used to treat acid reflux and GI ulcers, such as Losec®, Pantoloc®, Pariet®, and Zantac®, reduce stomach acid and the absorption of calcium as well.

Individuals taking these medications should use calcium citrate rather than calcium carbonate when supplementation is required.

Calcium citrate does not require stomach acid to dissolve fully, and is an ideal choice for these residents. Calcium citrate is widely available as a 300 mg tablet.

## **Dental Prophylaxis**

We have all become accustomed to administering antibiotics to our "at risk" residents prior to dental procedures. The antibiotics prevent bacteria originating in the oral cavity from entering the bloodstream and setting up infections on the heart valves...or do they?

The American Heart Association (AHA) has just updated its guidelines for infective endocarditis (IE) prophylaxis. The AHA notes that there is no study based evidence that antibiotic prophylaxis works. They also note that tooth brushing and flossing or simply chewing food introduce bacteria into the bloodstream more than 50% of the time.

Improved oral hygiene offers the best approach to reducing the risk of IE. Antibiotics should be reserved for those with prosthetic heart valves, prior IE, or cyanotic heart disease. Prophylaxis is no longer required for those with rheumatic heart disease, valve disease, septal defects or certain cardiomyopathies.

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