



# Sand Run Pharmacy

## Vitamin D Can Help Prevent Falls in Older Adults

May, 2013

### What is Vitamin D ??

Vitamin D is found in many every day foods, such as fish, eggs, and fortified milk. The sun also contributes significantly to the daily production of vitamin D, and as little as 10 minutes of exposure is thought to be enough to prevent deficiencies. The term "vitamin D" refers to several different forms of this vitamin. The two forms that are most important in humans are vitamin D2 and vitamin D3. Vitamin D2 is synthesized by plants. Vitamin D3 is produced by humans in the skin when it is exposed to sunlight. Foods may be fortified with either vitamin D2 or D3.

### Vitamin D and aging

Many people produce less vitamin D when they age because of decreased exposure to the sun, skin changes that decrease production of vitamin D, and decreased dietary intake of vitamin D. Decrease kidney function in older adults can also lead to vitamin D deficiency because the kidneys help to turn the inactive form of vitamin D into the active form.

### Vitamin D deficiencies

A vitamin D deficiency can be determined by a blood test. Low levels of vitamin D are associated with muscle weakness, muscle pain, trouble moving around, and decreased balance. This deficiency can lead to falls in older adults. Vitamin D supplementation in vitamin D-deficient, older adults improved muscle strength, walking distance, and functional ability, and results in a reduction in falls. Normal range is 30-80.

### Vitamin D supplements

Vitamin D is included in many multivitamins, but some people may need additional supplementation. Vitamin D is dosed in International Units (IU) as either vitamin D2 or vitamin D3. Either form of vitamin D can be used to increase low levels of vitamin D. Based on recommended dietary allowances of vitamin D adults 70 years old and younger should intake at least 600

international units every day, and adults over 70 should intake at least 800 international units a day. Since many older adults are deficient in vitamin D supplementation with doses of 800-1000 international units daily may be necessary to prevent falls. These doses of vitamin D can be purchased over the counter without a prescription. Once vitamin D supplementation is started it can take several months for vitamin D levels to return to the normal range. But, sometimes a blood test is taken to determine if an even higher dose vitamin D is needed. High dose vitamin D is commonly dosed as 50,000 international units once a week as either D2 or D3. Vitamin D2 50,000 international units can only be purchased by prescription but vitamin D3 50,000 international units can be purchased over the counter.



## Thyroid Disorders in Cats and Dogs

The thyroid gland participates in producing thyroid hormones, and disorders occur when too much or too little thyroid hormone is being produced. Cats and dogs can suffer from these disorders but many times the disorder can be treated with medications. In cats the most common thyroid disorder to develop is an overproduction of thyroid hormones, whereas in dogs it is an underproduction of thyroid hormones. The symptoms of a thyroid disorder can be varied but include changes in energy, appetite, weight, and digestion also changes in behavior, skin, fur, heart rate, and urine output can be observed. If the thyroid gland cannot produce enough thyroid hormone,

thyroid hormone replacement therapy will need to be started. When the thyroid gland is overactive a medication called methimazole is often used. This medication can be given orally or as a topical product. The medications used to treat thyroid disorders can be compounded as oral or topical products to any strength needed when a commercially available veterinary product is not found. Also, oral solutions can be flavored with a variety of tasty options that pets enjoy. We at Sand Run Pharmacy can help you and your pet by compound a variety of products to address your pet's thyroid medication needs. Please contact us if you have any questions.



### Interesting Health Fact of the Month:

Owning a pet helps people to have less stress, live longer, and stay happier and healthier.

### May 2013

- May 27  
Memorial Day: The pharmacy will be closed. Have a safe and happy holiday !



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