

Vitamin D is hot! It's receiving lots of attention in the press. But there are also a lot of scientific studies published each month on vitamin D. This week I thought I'd give you a quick update on 3 of the most interesting recent studies.

#1: Vitamin D3 is more potent than D2.

The issue of whether vitamin D3 and D2 are equally effective in raising blood levels of 25-hydroxy vitamin D, an important intermediate in vitamin D metabolism, has been a contentious one in recent years.

Dr. Robert Heaney, one of the top experts in the field, and his colleagues designed a clinical trial to compare the effects of D3 and D2 head-to-head and resolve this issue once and for all (Heaney et al, Journal of Clinical Endocrinology and Metabolism, vol.96: E447- E452, 2011).

They enrolled a total of 33 volunteers (average age = 50) with normal blood levels of 25-hydroxy vitamin D and gave them 50,000 IU/week of either vitamin D3 or vitamin D2.

The results were clear cut:

At the end of 12 weeks, the subjects receiving vitamin D3 had an 87% greater increase in blood levels of 25- hydroxy vitamin D compared to those receiving an equal amount of vitamin D2. The subjects receiving vitamin D3 also had 2- to 3-fold greater accumulation of vitamin D in their bodies than those receiving equal doses of D2

#2: Calcium and vitamin D may aid in weight loss.

This is another topic that has proven to be controversial in recent years. There have been several studies suggesting that increased intakes of calcium may aid in weight control.

However, other studies have shown no effect of calcium and suggestions have been made that one might need both calcium and vitamin D to have an effect.

This study was designed to test that hypothesis.

Ping-Delfos and Soares (Clinical Nutrition, 30: 376 - 383, 2011) enrolled 11 obese, 54 year old subjects in the study. They gave them 322 calorie breakfasts containing either 250 mg of calcium and 12 IU of vitamin D or 500 mg of calcium and 350 IU of vitamin D.

They measured both the rate of fat burning and diet- induced thermogenesis (the number of calories burned in response to the meal) following each breakfast.

Following each of the breakfasts the subjects were given an identical low calorie, low calcium and vitamin D lunch. Then at dinner the subjects ate from an all you can eat buffet and the scientists secretly kept track of what each subject ate.

On the days the subjects ate the high calcium, high vitamin D breakfasts they burned significantly more fat and calories following breakfast and ate significantly less at the buffet line than on the days that they started the day with low calcium, low vitamin D breakfasts.

#3: Vitamin D reduces muscle and joint pain in patients taking estrogen-lowering drugs.

Millions of women worldwide are put on estrogen lowering medications following breast cancer treatment and many of them experience significant muscle and joint pain - sometimes so severe that they cannot tolerate the treatment.

This study (Rastelli et al, Breast Cancer Research and Treatment, 129: 107-116, 2011) compared the effect of 50,000 IU of vitamin D/week to a standard diet providing 400 IU of vitamin D on the muscle and joint pain experienced by 60 patients who had previously reported pain and discomfort on estrogen-lowering drugs.

The patients receiving 50,000 IU of vitamin D/week reported significantly less muscle and joint pain while taking the estrogen-lowering drugs than the women receiving only 400 IU of vitamin D/day

So what is the bottom line for you:

1) While the debate on the best supplemental form of vitamin D is likely to continue for a while, the preponderance of current **evidence clearly suggests that the vitamin D supplements you use should be D3 rather than D2.**

2) Calcium and vitamin D are unlikely to be "magic bullets" that will melt the pounds away. While some people have gone as far as to promote high calcium "diets" for weight loss, that is clearly an over interpretation of the current scientific data.

However, if you want to lose weight it is probably a good idea to make sure that you are including sufficient calcium and vitamin D in your diet - especially if you are also reducing your intake of high fat dairy products.

3) If you are on estrogen-lowering medication and are experiencing muscle and joint pain as a consequence, you might wish to discuss supplemental vitamin D with your doctor. I don't recommend taking 50,000 IU of vitamin D/week on your own.

To Your Health!
Dr. Stephen G Chaney

P.S. The new CD "Cancer: Preventing, Surviving & Thriving" with Dr. Margaret Christensen is now ready for order at:

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