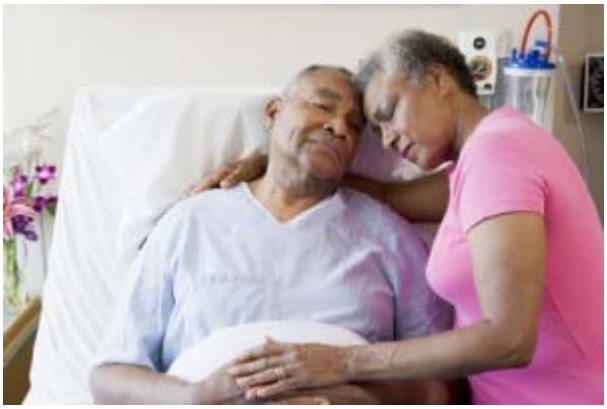
# Association of hypogonadism with vitamin D status

Posted on December 26, 2011 by Dr John Cannell

A recent darling diagnosis is male menopause. Just like women, males experience dramatic reductions in testosterone as they age, a condition recently labeled male menopause. As vitamin D levels fall with aging, I have wondered how many of the hormones that decrease with aging do so because vitamin D levels decline with aging.



Last month, Dr. David Lee from the University of Manchester and 18 colleagues looked at the relationship between testosterone and vitamin D levels in more than 3,000 men. Before they overcorrected their data, they not only found higher vitamin D levels mean higher testosterone levels but that low vitamin D levels are associated with higher female hormone in these men. This could explain why men, as they age, look more and more like women.

Lee DM, Tajar A, Pye SR, Boonen S, Vanderschueren D, Bouillon R, O'Neill TW, Bartfai G, Casanueva FF, Finn JD, Forti G, Giwercman A, Han TS, Huhtaniemi I, Kula K, Lean ME, Pendleton N, Punab M, Wu F. Association of hypogonadism with vitamin D status: the European Male Ageing Study. Eur J Endocrinol. 2011 Nov 2.

We know Dr. Lee and his colleagues overcorrected their data because a randomized control trial showed that even relatively low doses of vitamin D (3,300 IU/day in obese men) for a year resulted in 30-40% increases in testosterone levels.

Pilz S, Frisch S, Koertke H, Kuhn J, Dreier J, Obermayer-Pietsch B, Wehr E, Zittermann A. Effect of vitamin D supplementation on testosterone levels in men. Horm Metab Res. 2011 Mar;43(3):223-5.

The importance of these findings, for both men and women are hard to overstate. Low testosterone levels are associated with early death, mostly from cardiovascular disease and for women, a live partner is one of the keys to a healthy marriage.

The next stop is to test HCG, DHEA, pregnenolone, and thyroid hormone to see if vitamin D, in meaningful doses, has an effect on these hormones that also decline with aging. You could wait ten years for the studies or take 5,000 IU/day while we are waiting. I recommend the latter.