## Calcium May Increase Prostate Cancer Risk





Although past studies have shown increased risk of prostate cancer in men who consume a high amount of dairy products, a recent study funded by the National Cancer Institute indicates that it might not be dairy increasing the risk per se, but a higher calcium intake in general. Since the American Cancer Society estimates one in six men will be diagnosed with prostate cancer in his lifetime, determining the specifics of this association is advantageous.

To establish if the association is between prostate cancer and calcium, not prostate cancer and dairy, researchers conducted a study using data from over 27,000 men that were part of the Singapore Chinese Health Study. Almost all previous studies investigating calcium and prostate cancer used Western populations in which dairy products are the primary source of dietary calcium. However, in Asian populations where dairy consumption is much less prominent, calcium primarily comes from plants such as kale, bok choy, broccoli, and soy. During follow-up, 298 men in the Singapore Chinese Health Study were diagnosed with prostate cancer.

•The findings indicate a roughly 25% increased risk of prostate cancer in men who consumed the highest amounts of calcium (~650 mg/day) compared to those who consumed the lowest amounts (~210 mg/day), but it is important to note that these results did not reach statistical significance. Additionally, the median calcium intake (~650 mg/day) in men that consumed the highest amounts is low; the Food and Nutrition Board deems 1,200 mg/day as adequate for men older than 51 years of age.

However, because it is thought that thinner individuals might absorb more calcium than heavier individuals, the researchers tested to see if body mass index (BMI, a calculation to determine body fat based on height and weight) made a difference. Indeed it did. Men with a BMI less than 22.9 kg/m2 whose calcium intake was highest had **double the risk of prostate cancer**, and this was statistically significant. Additionally, as calcium intake increased, so did the risk. To help put that BMI in perspective, a man 5' 9" weighing 155 pounds has a BMI of 22.9 kg/m2. To calculate your BMI, click here.

In the study population, calcium intake came primarily from vegetables (19.3%) followed by:

- Dairy (17.3%)
- Grains (14.7%)
- Soy foods (11.8%)
- Fruit (7.3%)
- Fish and Shellfish (6.2%)

Although vegetables were the largest source of calcium in this group, researchers emphasized that they found total calcium intake, not any one particular source of calcium, to have the association with prostate cancer.

These results put men at risk for prostate cancer in a sticky situation, because the benefits of calcium are numerous. It is crucial for optimal functioning of muscles, blood vessels, hormones, the nervous system, and it can help lower high blood pressure. Chronic low calcium intake can lead to osteoporosis. Although the study's findings are insightful, if you are concerned about your risk for prostate cancer talk to your doctor before cutting back on calcium.