

## **Androgen Deprivation Therapy for Prostate Cancer Doubles Dementia Risk**

Hello, this is Dr. Sonya Hardin, program director for the Geriatric Workforce Enhancement Program grant at East Carolina University. Podcasts are being developed for primary care providers with topics in neurology. This short podcast is focused on androgen deprivation therapy for prostate cancer.

Androgen deprivation therapy for prostate cancer may double a man's risk for developing dementia, according to researchers from Penn State, who published their results recently in JAMA Oncology. Androgen deprivation therapy has been a cornerstone of treatment for prostate cancer since the 1940's, and more than 500,000 men in the United States are currently under treatment. Data over the past year have pointed to a significant association between Alzheimer's disease and androgen deprivation therapy. This latest study suggests that there may be even broader neurocognitive risk associated with this therapy.

What is interesting is the drastic reduction of androgen activity has been linked to several adverse side effects, and researchers have found association between low testosterone level and obesity, diabetes, high blood pressure and heart disease, which are all known risk factors for dementia. Androgen deprivation therapy and low testosterone levels have also been linked to cognitive deficits.

Finally, research has recently shown that men with Alzheimer's disease tend to have lower testosterone levels compared with age-matched men without Alzheimer's. This study is very important to us as primary care providers as we are providing care to men who are currently receiving androgen deprivation therapy. It's important for us to keep in mind that we need to be assessing for cognitive impairment in this population. This ends this podcast. Thank you very much.