

Prostate Cancer Screening in African American Men



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A group in New York evaluated Prostate Serum Antigen (PSA) levels among HIV-positive and HIV-negative African American men forty years of age and older. PSA is a laboratory marker that helps doctors to diagnose prostate cancer.

Because PSA levels can be affected by other conditions, including urinary tract infections, inflammation of the prostate, etc., men with these conditions were excluded from the study. In all age ranges examined (40-49, 50-59, 60-69), HIV-negative African American men had consistently higher PSA levels than HIV-positive African American men. Researchers speculate that this might be caused by decreased immunity, the use of anti-HIV medications, low testosterone levels (which is associated with advancing HIV disease) and possibly variations in the PSA test itself. The following chart displays the differences observed in the study:

This study is important as it is estimated that about 14% of HIV-positive African American men are over the age of forty and should be undergoing age-appropriate screening for prostate cancer. Doctors should be aware that African American men living with HIV may have lower PSA levels compared to their HIV-negative counterparts and be aware that this may make early detection of prostate cancer by relying on PSA more difficult. It is likely that this information also applies to men of different races and ethnicities.

Age Range	Median PSA level (HIV-)	Median PSA level(HIV+)	p-value*
40 – 49	0.71 (n*=48)	0.54 (n=52)	0.03
50 – 59	0.96 (n=87)	0.68 (n=76)	0.0002
60 – 69	1.5 (n=44)	1.33 (n=24)	0.66
Over 70	1.86 (n=47)	(n=0)	-

n = the number of men included in the age range and HIV grouping.

p-value = the statistical power of the difference between the two groups. At a minimum, an observation needs to have a power of .05 to be considered meaningful and significant. The smaller the p-value, the more statically important or significant the observation. Thus a p-value of .0002 is considered very powerful.

