

PROSTATE SPECIFIC ANTIGEN (PSA) ELEVATION

Overview:

Most insurance carriers, as well as many personal physicians, now routinely include a *Prostate Specific Antigen (PSA)* blood test as part of their routine lab analysis for men over age 50. PSA is produced only by prostate cells; a certain level of PSA is normal for healthy men. Physicians look for the total amount of PSA present relative to the total size of the prostate. A healthy prostate cell is known to produce “X” amount of PSA whereas a abnormal or irritated prostate cells may generate greater levels of PSA - sometimes with a factor of up to ten times greater. For some conditions, the number of prostate cells increases, either due to a benign condition or due to cancer, which again leads to PSA levels that are relatively greater to what would be expected with a healthy prostate. This measure is known as *PSA density*.

Similarly, an *abnormally high rate of PSA increase over time* may hint at possible prostate trouble. The rate of this increase is referred to as *PSA velocity*. An increase of PSA by as much as .75 to 1 ng/ml per year is considered unremarkable in older men. However, a rate of increase higher than this, especially over a period of more than a year, may indicate a more serious condition and warrants further evaluation. High PSA levels often indicate cancer. Over 90% of males with a PSA of 10 or higher will show cancer with biopsy. Current research has generated the following guidelines for the evaluation of PSA test findings:

Age based reference ranges for <i>acceptable, normal PSA levels:</i>	Age 40 - 49 up to 2.5 ng/ml Age 50 - 59 up to 3.5 ng/ml	Age 60 - 69 up to 4.5 ng/ml Age 70 + up to 6.5 ng/ml
PSA Density: this is a measure of total PSA in relation to prostate size. A lower density is better.	This number is obtained by dividing the PSA by the size of the prostate gland from an ultrasound report. A value greater than 0.20 will be treated as suspicious for cancer.	
PSA Velocity: measure of PSA changes over time. The faster the rise, the higher the velocity, the more cancer is suspect.	An increase in the PSA levels greater than 0.75-1.00 ng/ml per year is of concern, especially if the value is steadily rising over a period of a year or more (wide fluctuations being a more likely indicator of non-malignant prostate irritation or	
Free/Unbound PSA: free PSA is NOT bound to protein. High levels of PSA bound to protein can be an indicator for cancer.	Levels of free PSA less than 20% of the total PSA is a possible indicator for cancer. High levels of free (unbound) PSA indicate a lower likelihood of cancer.	

There are conditions and situations other than prostate cancer that lead to elevated PSA readings. Higher than normal PSA readings may be due to temporary inflammation of the prostate gland, often referred to as prostatitis. Even a long bike ride, or a sudden increase in sexual activity, can lead to prostate irritation and higher PSAs. Many men over age 50 experience an enlarged prostate, a condition referred to as Benign Hypertrophy of the Prostate (PHP), also referred to as Benign Prostatic Hyperplasia (BPH), either of which can lead to elevated PSAs. Typically, neither condition leads to major complications. Another condition that can lead to elevated PSA readings is Prostatic Intraepithelial Neoplasia, or PIN. This condition manifests itself with abnormal cells of the epithelium lining the prostate glands. Unlike with PHP or BPH, PIN has been identified as a likely precursor to prostate cancer and thus will lead to close observation and possibly aggressive treatment, including sometimes preventative transurethral prostatectomy.

Impact on Life Underwriting:

A temporary elevation of PSAs is very common and of no concern to underwriting. PSA levels over 4 but less than 10 typically lead to a request for a workup and repeat testing. Steadily increasing levels of PSA will require further investigation. PSA readings of 10 and higher are often postponed pending further analysis (and usually a biopsy). If the cause for elevated PSAs can be documented to be benign, underwriting normally proceeds without rating. An exception is PIN, due to its apparent link to the development of prostate cancer. PIN cases require individual consideration, especially if no treatment is attempted. A finding of prostate cancer often leads to a postpone, rating, or decline, depending on the age of the proposed insured, any documented disease progress (the slower the better), and other factors. Surgical removal of an early stage prostate cancer can lead to standard rates. Untreated but slow growing prostate cancer in older men can now often be underwritten as a chronic disease with somewhere between 2 and 4 tables. If prostate cancer has already been diagnosed, please refer to our prostate cancer specific write up and related questionnaire. SB 072001