

PROSTATE CANCER SCREENING

Prostate cancer is the most commonly diagnosed noncutaneous malignancy in men in the United States. The incidence varies depending on the group evaluated. African American men have the highest incidence of 224/100,000 compared to white American men with an incidence of 150/100,000 and this is in contrast to Western European men of 39/100,000.

Screening for prostate cancer should begin at age 50 unless the patient is in a high-risk group. High-risk groups include:

- Men of African descent
- 1st degree relatives diagnosed at a young age

If the patient fits into a high-risk subgroup, then screening should commence between 40-45 years of age.

The screening tools for prostate cancer include an annual digital rectal examination and a prostate specific antigen beginning at age 50 for low-risk patients. In general the PSA varies with age:

<50 years	< 2.5 ng/ml
50-59 years	< 3.5 ng/ml
60-70 years	<4.5 ng/ml
>71 years	<6.5ng/ml

The prostate specific antigen should also not increase by more than 0.75ng/ml/year. Even if the total prostate specific

antigen is in the normal range, a rise in the prostate specific antigen by more than .75ng/ml over one year, needs further investigation.

Another tool, which is used to determine the cause of an elevated prostate specific antigen, is the determination of the free prostate specific antigen. For unclear reasons, PSA derived from malignant tissue tends to bind more avidly to proteins. Thus, in patients with an elevated PSA, cancer is more likely to be present when the percentage of free PSA is low.

0-10% Free PSA	56% Probability of cancer
10-15% Free PSA	28% Probability of cancer
15-20% Free PSA	20%Probability o cancer
20-25% Free PSA	16%Probability of cancer
>25% Free PSA	8% Probability of cancer

If there remains uncertainty regarding an underlying cancer then a rectal sonogram with biopsy can be performed.