

# The effect of glomerular filtration on free PSA levels

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## Aim

To determine whether the decreased glomerular filtration affects serum free PSA levels.

## Methods

Patients with normal PSA levels (age specific) and negative digital rectal examination were evaluated in this study. All patients had their free PSA measured and their glomerular filtration was determined by their serum creatinine level by the Lund-Malmö formula. These patients were then stratified into 5 groups by the chronic kidney disease classification. The following values were compared between these 5 groups: total PSA, freePSA/PSA ratio and patients age.

## Results

The total number of evaluated patients between January 1<sup>st</sup> 2010 and December 31<sup>st</sup> 2012 was 222.

Chonic kidney diesase stage	Glomerular filtration (ml/s)	fPSA/PSA ratio median	Age median	PSA value median	No. of patients
1	>1,5	32	55	1,1	22
2	1-1,49	27	61	1,5	120
3	0,5-0,99	29	69	1,6	29
4	0,25-0,49	31	71	0,9	25
5	<0,25	47	60	1,5	26

## Conclusion

The level of serum free PSA is higher in patients with stage 5 chronic kidney disease (glomerular filtration lower than 0,25ml/s).