

## PSA

A blood test used to screen for prostate cancer

Normal levels by age;

40-49 less than 2.5

50-59 less than 3.5

60-69 less than 4.5

70-79 less than 6.5

Over 80 below 20

Can be affected by;

- Infections
- Ejaculation
- Exercise (cycling , running)
- Catheter / cystoscopies
- DRE
- Prostate biopsies
- Drugs (finasteride)

Not a good indicator for prostate cancer due to all these things that affect it.

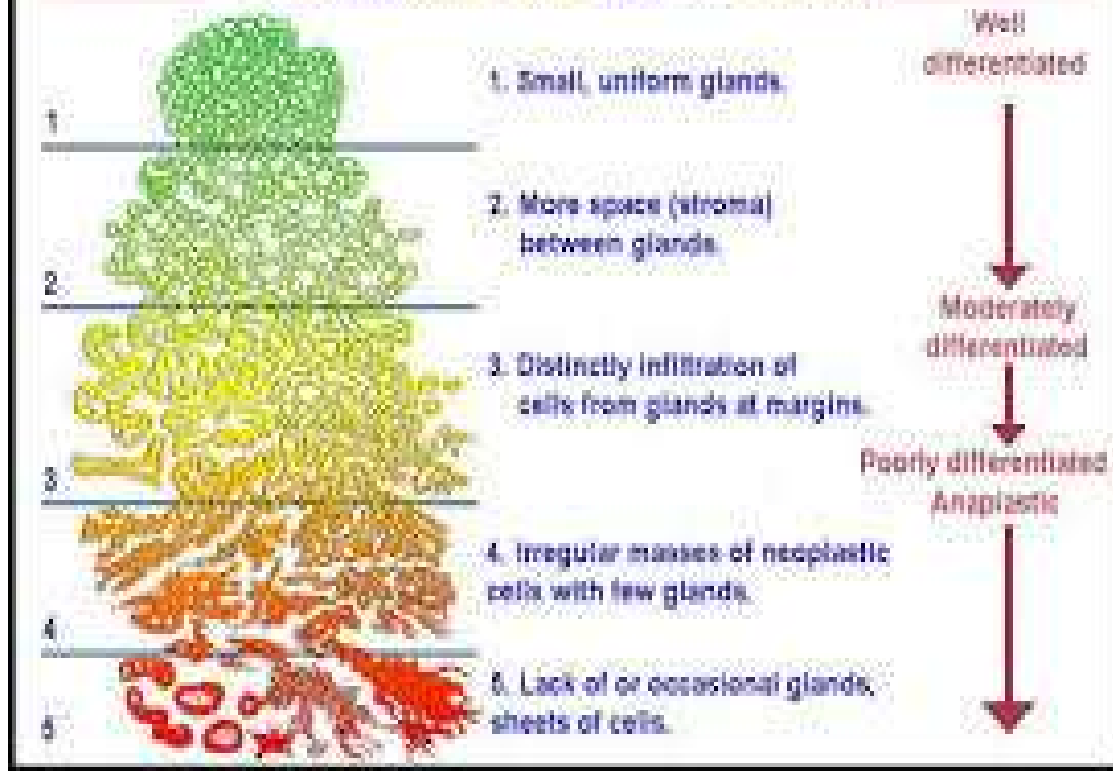
**BUT**

It is a good marker to measure the progress of prostate cancer.

Different levels apply then depending on the treatment and the expectations of treatment.



## Gleason's Pattern Scale



## GLEASON GRADE

Made up of 2 scores

- The most common type of cell seen + the second most common cell seen
- Grade 1-2 cannot be seen in the small biopsy samples therefore only grade 3-5 can be seen
- e.g. mostly grade 3 with a little grade 4 = 7

However....

Gleason 3 + 4 =7 is better than 4 + 3 =7 as the most common grade seen is higher.

- Gleason 3 + 3= 6 (low grade) is the best that can be seen and 5+5=10 (high grade) the most aggressive.

## HOT FLUSHES

Due to the lack of testosterone in the body

Ways to help;

- Try to stay a healthy weight
- Drink 2-3l fluid daily
- Avoid alcohol and drinks containing caffeine (tea, coffee, coke)
- Stop smoking
- Avoid spicy foods
- Keep the room at a lower temperature or use a fan
- Use cotton sheets
- Wear cotton clothes esp. at night

Keep a diary to see if there is anything that obviously sets the flushes off.

## Other treatments

### Complementary therapies;

- Acupuncture
- Hypnotherapy
- Herbal remedies eg sage tea, evening primrose oil, red clover

None of these are evidenced based with minimal research but there is some evidence they help.



## **Nerve Pain (Peripheral neuropathy)** following chemotherapy

Caused by the drugs damaging the nerve endings.

Can take 18 months up to 5 years to recover.

Actions to help;

- Keep hands and feet warm
- Protect hands by using gloves, oven gloves
- Protect feet wearing good fitting shoes or boots
- Don't walk around with bare feet
- Test water with your elbow to make sure it will not burn
- Some drugs can help with nerve pain particularly
- TENS pain relief
- Acupuncture
- Physio to help with balance issues
- Occupational therapist to help with disabilities

## **Bladder Issues;**

A common problem both before and after treatment!

Causes;

- Treatment irritating the prostate
- Treatment irritating the bladder (radiotherapy)

Ways of helping;

- Drink 2-3 litres fluid to ensure urine is not concentrated
- Reduce fluid intake during the evening
- Avoid caffeine (tea, coffee, coke)
- Avoid fizzy drinks, hot chocolate, alcohol
- Pelvic floor exercises
- Practice bladder retraining
- Avoid constipation

Other options include;

- Medication to help reduce urgency (Betmiga)
- Botox to reduce bladder urgency
- Anticholinergics (Vesicare)
- Treatments into the bladder to help irritation (Hyacist, iAluril)



Sometimes it cannot be mended but on a positive note....

**You are alive to be able to pee!!!!**





# GENETICS

Factors suggestive of a genetic contribution to prostate cancer;

- 3 or more first degree relatives (father, brother, son)
- At least 2 relatives affected with early onset prostate cancer (aged under 55years)
- 3 successive generations or either maternal or paternal lineages
- It is thought that 3-5% men will have a hereditary disease.

## Associated Genes and Chromosomes

- BRACA1, BRACA2, HOXB13 are genes found to have associations with prostate cancer.
- Genome wide association studies have identified over 100 single-nucleotide polymorphisms (chromosomes) associated with the development of prostate cancer.
  - the clinical significance of this is still being uncovered with studies continuing to assess whether combinations of these chromosomes (SNP) have any clinical relevance in identifying individuals at higher risk of prostate cancer.
- Swiss Study suggests that there is a higher risk if brothers are affected rather than fathers especially if they are diagnosed before the age of 55 years.
- Those with a family history of prostate and breast or ovarian cancer are at increased risk (BRACA1/2 gene)

## Conclusion

- Genetics makes some difference in understanding who should be tested at what age.
- Needs to be properly managed with proper, effective counselling

PSA testing for those with family history is advised from the age 45  
PSA testing for everyone else is 50 years.

## Erectile dysfunction

Very common with many prostate cancer treatments

Treatment options;

- Viagra, Cialis (PDE5 medication)
- Pumps
- pellets
- Injections (Caverjet)
- Implants

See a specialist in this area.

Erectile dysfunction is related to heart disease but **not** when it is due to treatment