

# THE PROSTATE

## SMALL GLAND **BIG** PROBLEM

By John Crow

### *Chapter 4*

In this chapter I want to address the big issue **CANCER**.

What is **CANCER**?

As you will already know, our body tissue is made up of literally Billions of cells. Normally these cells that form every individual organ spend their lives dying (almost from the moment of birth) and regenerating in a reasonably organised manner. This process is extremely complex and beyond the scope of this chapter.

There are two ways in which it all “**GOES WRONG**”.

When the cell division and regeneration process gets out of control, the cells, instead of dying actually continue to divide which leads to a cell mass or **TUMOUR**.

Some tumours are **Benign** and others **Cancerous**.

A **benign** tumour is defined as one that will grow in the local area, even to the point of causing obstruction by pressing on surrounding organs. Most of these tumours can be dealt with either by surgery, radiotherapy, or reducing drugs.

**Cancerous** tumours are by nature, potentially more serious in that they can move around the body via the blood or lymphatic systems, attach themselves to other organs, including the vital organs, and eventually become so unstable that they take over completely, with in some cases, catastrophic results. The medical term for this process is **metastasis**.

Cancer may also be described as a healing process that has not terminated upon completion of its task. Damage occurs to the body in a number of ways (e.g. physical blows, viruses, bacterial proliferation, toxins, hormone imbalances), and the body attempts to heal the damage. If this healing process does not terminate properly due to malnutrition and certain other causations, the end result will be an ongoing proliferation of healing, trophoblast material, read tumour.

Malnutrition should not be read as being in starvation mode, but more related to a lack of essential nutrients, often either not present in our western diet or destroyed during the manufacturing or cooking processes. *More about this in chapter five.*

### **PROSTATE CANCER**

I mentioned in earlier chapters that it is sometimes extremely difficult to distinguish between the three main prostate problems, namely Prostatitis; BPH and Cancer, especially in the early stages. *(Refer to chapter 2 for list of symptoms)*

If you go to your GP and assuming he/she has ruled out Prostatitis, the next stage would be to conduct a **DRE**, **Ultrasound Scan** and **PSA** blood test.

**DRE** (Digital Rectal Examination.)

To be blunt about it, the Doctor will put on his rubber glove (*Do not be afraid, just think of England*) and push his/her finger up your “bum”, the idea being to see if they can feel any enlargement or nodules indicating the **possible** presence of Cancer.

**Ultrasound Scan** (External)

This is a straightforward scan where an image is viewed in order to assess the size of the Prostate.

**PSA (Prostate Specific Antigen)**

*Measured in ng/ml (nano grams per milli litre)*

As stated in an earlier chapter, this antigen is a naturally occurring protein produced by the prostate, the level of which can be measured in the bloodstream.

The **PSA** can therefore be measured by a simple blood test (only 5 minutes of your time, which could save your life) the results of this test can determine along with other factors; including the **DRE** findings and scrutinising the symptoms, whether there is a **likelihood** of having Prostate Cancer.

**CONTROVERSIAL ISSUE**

As with a good many things in life, there is a downside in that the PSA test can give both false positive and indeed false negative results, “Oh dear oh dear”, I here you all sigh.

Have no fear, for help is at hand.

Much research has gone into the PSA test (The best we have available at present) and a scale drawn up in order to offer some guidance.

Generally speaking a level of less than 4ng/ml would be considered satisfactory, whilst anything above may require further investigation or at least a **watchful waiting** approach.

As part of this **watchful waiting** approach, a formula may be applied to a series of PSA results over time, in order to access the “Doubling Rate”, which in turn may be used to estimate the likelihood of further procedures being required.

One point to mention here is that PSA will naturally increase with age due to natural Prostate enlargement, and this must be taken into account when considering the next action (if any) to take.

The following scale will help with the understanding of this somewhat complex subject

**WHAT IS THE NORMAL LEVEL OF PROSTATE SPECIFIC ANTIGEN?**

A normal PSA level is related to your age. The older you are the higher your normal test will be.

AGE	PSA
40-49 years old	2.5 ng/ml or less
50-59 years old	3.5 ng/ml or less
60-69 years old	4.5 ng/ml or less
70-75 years old	6.5 ng/ml or less

### ***My opinion***

Any PSA above 7ng/ml should be monitored with at least an annual check (*watchful waiting*) whereas a PSA above 10ng/ml should be suspected as a case for further test procedures.

I will explain my reasoning for the above statement in a later chapter when I discuss my own case study, and how I ignored the G.P to probably save, or at least prolong my own life. (See definition of a specialist in chapter 2)

A newer and more accurate test has been developed, however this is currently not widely used and takes more time to process. This test is:-

### **PCA3 TEST**

Genetic test of the Urine following a DRE (This stimulates the Prostate into releasing PCA3 into the Urethra).Levels of this gene are 34 times greater in Prostate Cancer cells than normal one's.

The test is claimed to offer an 80% accuracy as opposed to 47% for PSA test.

For the time being, the PSA test remains the standard practice.

### **So-What next?**

Assuming that the PSA results give reason to believe that Cancer is a possibility then a **Biopsy** will be called for.

### **BIOPSY**

A prostate Biopsy is performed together with a **TRUS** (Transrectal ultrasonography) where a probe is inserted into the rectum in order to view, using Ultrasound, the size of the Prostate. At the same time a needle (a fairly large one, I hasten to add) is passed through a channel at the side of the probe, and samples are snipped out for analysis in the pathology lab.

A good Tiger will just grin and bear it, but I have to confess that it did make my eyes water somewhat, and according to my wife Margie, I returned looking very pale. A good old" English cure all" cup of tea follows, and an hour later I was walking in the park.

Probably the most agonising part is now awaiting the results, which can take two or three weeks.

Assuming that the Urologist has done a good job of taking sufficient samples from different areas of the prostate he/she will have picked up any abnormality which would be confirmed by microscopic analysis thus indicating that you have Prostate Cancer. Even at this stage, it is possible to miss a Cancer possibly necessitating a further biopsy, however it is now common to take at least 14 samples (cores) offering a better chance of detection.

### **YOU HAVE CANCER**

It would be a brave man (unless you are a “Tiger” of course) that would not be at least, a little shocked at hearing the bad news, “I’m afraid you have Cancer”.

Some good news (if that is possible, given the circumstances) Most Prostate Cancers are of the “adenocarcinoma” type, a high percentage of which are very slow growing, sometimes taking many years before causing any real problem. Another good reason to be checked out at the earliest signs of trouble, once again see (*List of symptoms in chapter 2*)

During the pathology procedure, the samples are viewed under the microscope and your Cancer is **GRADED**. This will indicate how aggressive the Cancer is and hence the likelihood of its ability to break away from the primary site and spread to other parts of the body (*Metastasis*)

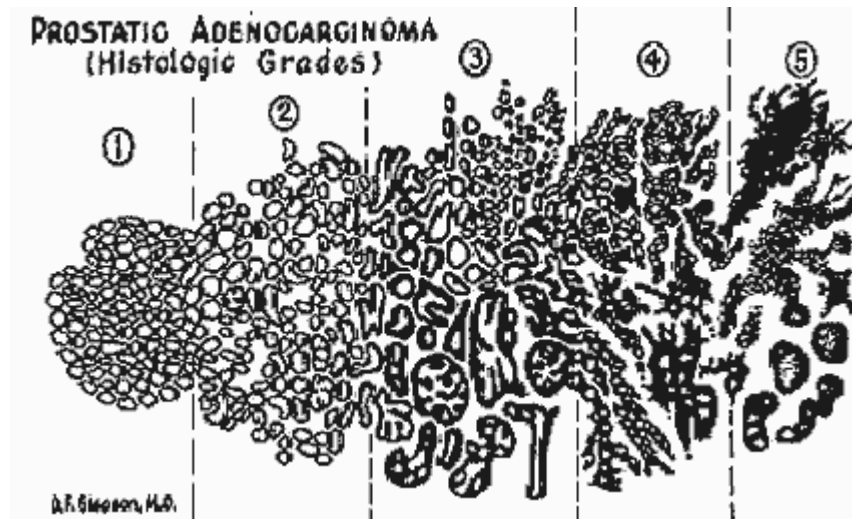
### **GRADING**

In the early stages of Prostate Cancer the cancer cells bear a close resemblance to normal Prostate cells, however as the cancer becomes more aggressive and dangerous these similarities become more progressively lost or ‘de-differentiated’. This process was discovered by the pathologist Dr Gleason in the 1960s.

The samples taken at Biopsy are thus given a ‘**Gleason grade**’ with the scale running from 1 to 5, according to the shape, size and structure of the cells in the sample .A score of 5 is the most aggressive.

To finally attain a ‘**Gleason Score**’ two of the most prominent regions of the Prostate Biopsy are taken to form an average resulting in a **Gleason Score** of between 2 and 10. The higher the score the more aggressive the cancer and thus its ability to spread from the local site.

The picture below indicates the microscopic view of the 5 grades, where 5 is the most aggressive or ‘Poorly Differentiated’ sample.



*Hope your still with me*, but it is important to understand the whole picture.

The final part of this complex jigsaw is to consider **STAGING**

### **STAGING**

Prostate cancer progresses in 4 stages defined A, B, C, and D, unless some intervention is taken. *(See treatment in chapter 5 to follow)* each of these stages is sub divided but it is beyond the scope of these articles to go into that depth.

#### **Stage A**

At this stage the malignant tumour is entirely confined within the capsule of the prostate and may have been present for many years without showing any symptoms at all.

#### **Stage B**

The malignant tumour is still confined within the capsule but is now large enough to be physically detectable by **DRE**.

#### **Stage C**

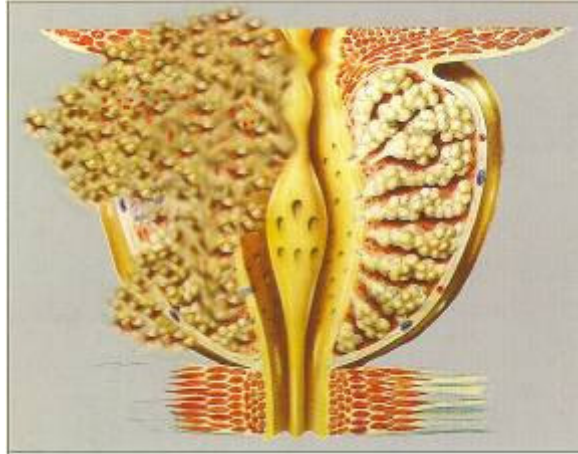
At this stage the cancer has escaped from the capsule and invaded other local tissue especially the seminal vesicles (*string like sacs which store sperm produced by the testicles*) At this stage the condition is still treatable.

#### **Stage D**

We now move into the danger zone where the Tumour has **metastasised** or spread to other parts of the body. The ability to spread is aided by the circulatory and lymphatic systems and is basically free to attach itself to any other organ and tissue usually starting in the lymph nodes of the pelvis.

For some reason as yet not fully understood Prostate cancer cells appear to make a move towards the bones, eventually resulting in severe bone pain and fractures.

Here is a picture showing Prostate Cancer escaping from the confines of the capsule.



I hope I haven't either bored or frightened you to death, but I cannot emphasise enough how important it is to **take action** if you appear to have any **persistent symptoms**.

In chapter 5, I will discuss the various treatments available (*both conventional & controversial*) for the different stages of this problem. I will also offer some advice relating to diet and some of the more controversial supplements, and finally my own case study.

Had I not listened to my body and taken the advice of Doctors alone, I may well not be here to write these chapters now. That is an irrecoverable and extremely hard lesson to learn.

Once again, any persistent symptoms= **ACTION NOW-----Yes, I do mean NOW.**

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