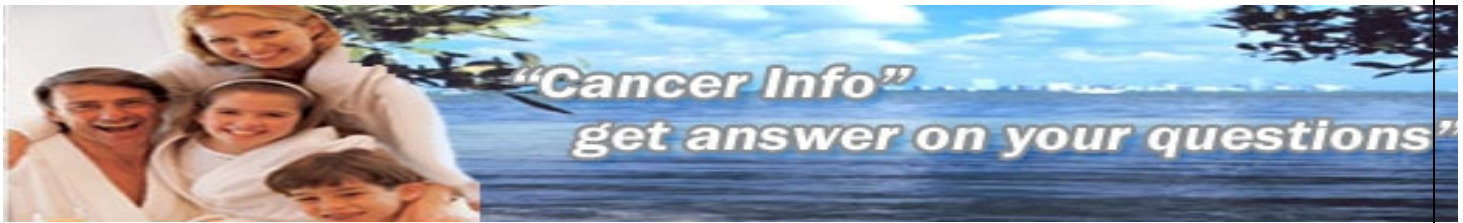


What's a man" must" know about Prostate Cancer!

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1 Testosterone and its active metabolite.

Dihydro-testosterone are essential for prostate cancer to develop, but does not actually cause prostate cancer. Men who are castrated at a young age do not develop prostate cancer.

2 Prevalence of prostate cancer

One in ten men will develop clinically significant prostate cancer in their lifetime. It is the most commonly diagnosed cancer in American males with 250 000 new cases reported annually. Prostate cancer is second only to lung cancer as a cause of cancer death in both the USA and the UK. Prostate cancer is rare among Orientals. It is more common in black than white Americans. The disease appears to present at a younger age and behave more aggressively in American blacks. Prostate cancer is common in South Africa and probably underreported as a cause of death. The exact incidence in South Africa is not known as no large-scale epidemiological studies have been performed. It is uncertain whether prostate cancer is more common in South African blacks as compared to whites. In very old men prostate cancer is not always clinically significant. Autopsy data indicate a 70% incidence of prostate cancer in 80 year old men. The majority of these men died with rather than from prostate cancer.

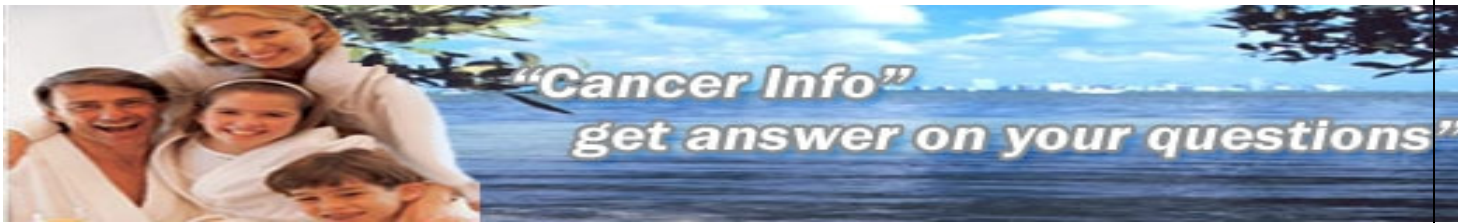
3 Causes of prostate cancer

There is no single cause of prostate cancer. The cancer originates in the epithelial cells of the glandular elements of the prostate. As with most cancers defects in the DNA of the cell are central to the development of prostate cancer. Multiple DNA defects are required for cancer to develop. This multi-step process takes place over time. Some defects can be inherited, while others are acquired during the patient's lifetime. Prostate cancer is exceedingly rare before the age of 40, but 1 in 8 men between the ages of 60 and 80 years suffer from the disease. 9% of all prostate cancers are caused by a genetic susceptibility, probably inherited via chromosome 1. These genetically related cancers tend to present at a relatively younger age.

4 What is prostatitis?

Prostatitis means "inflammation of the prostate", and is one of the most common reasons men visiting the doctor in the western world. It is most common in men over the age of 30, and particularly in men over the age of 60. While prostatitis is treatable, diagnosis can be lengthy and not all treatments are successful. This is partly because the various causes of prostatitis are not fully understood. There are three main types of prostatitis:

- **Acute prostatitis**, which develops suddenly and may not be permanent.
- **Non-bacterial prostatitis**, which may develop suddenly or follow a slower or variable course. It is now more commonly called chronic male pelvic pain syndrome because it cannot be proved to be "non-bacterial", though a bacterial cause cannot be identified.
- Chronic (bacterial) prostatitis, which develops gradually and may only have subtle symptoms, though it often continues for a prolonged period.
- **asymptomatic inflammatory prostatitis** – which has no symptoms at all but results in an inflamed prostate, is sometimes mentioned. It has been discovered when biopsies are conducted on the prostate to rule out cancer, and no cancer is found. This is a histological and not a clinical diagnosis. Prostatitis is often reported on the histological analysis of TURP



specimens when the prostate resection was performed for symptoms of BPH. If the patient is asymptomatic this histological finding does not warrant any treatment.

With our next information – we will inform you about the “Symptoms of prostate cancer” – so you should have a look on this site in the next 2 weeks! If you have any question send us your e-mail.

5 Symptoms of prostate cancer

Related to the primary tumor:

- Asymptomatic
- Poor stream
- Retention of urine
- Urgency
- Frequency
- Hematuria (blood in the urine)
-

Related to secondary tumor deposits:

- Bone pain (back and pelvis):
- Pathological fractures
- Enlarged lymph glands
- Kidney failure
-

Related to the general effects of malignancy:

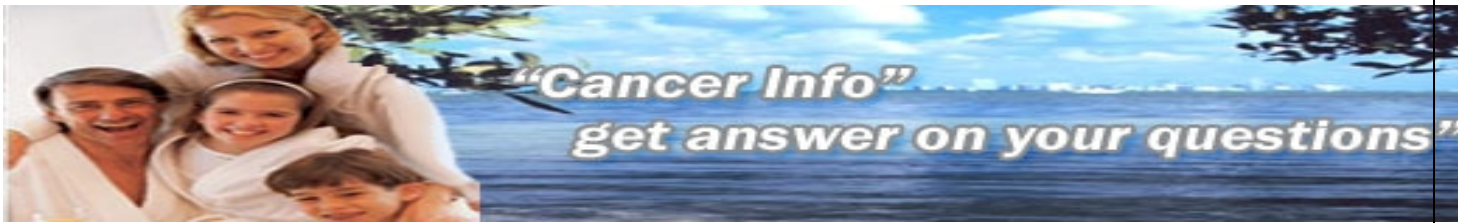
- Weight loss
- Tiredness
- Malaise
- Anemia
- Loss of appetite

Early prostate cancer is usually completely asymptomatic. By the time that prostate cancer becomes bothersome or clinically apparent it has usually spread beyond the confines of the prostatic capsule and is no longer amenable to cure. In the first world early prostate cancer is usually diagnosed following screening. Prostate cancer can also be a chance finding in the tissue removed by transurethral resection for suspected benign prostatic enlargement.

The primary tumor can cause lower urinary tract symptoms similar to benign prostatic hyperplasia. Obstructive symptoms include poor stream, incomplete emptying and straining while passing urine. Irritative symptoms include dysuria, frequency, urgency and nocturia. Prostate cancer can also cause blood in the urine but this is not common.

Prostate cancer typically spreads to the bony skeleton and the lymph glands of the pelvis. Bony metastases commonly involve the lower spine and pelvic girdle causing backache. Lymphatic involvement can cause swelling of the legs and obstruction of the drainage tubes of the kidneys (ureters). Prostate cancer can cause renal failure by ureteric obstruction or by bladder outlet obstruction.

With our next information – we will inform you about the “Diagnosis of prostate cancer” – so you should have a look on this site in the next 2 weeks! If you have any question send us your e-mail.



6 Diagnosis of prostate cancer

The diagnosis of prostate cancer can be made on clinical suspicion of the disease, following screening, or as an incidental finding during transurethral resection for suspected benign disease (TURP).

Clinically suspected prostate cancer

Prostate cancer can be completely asymptomatic or present with symptoms similar to benign prostatic enlargement (see symptoms). It can also present with the symptoms of metastatic disease.

On digital rectal examination prostate cancer feels rock hard and nodular. Invasion into the surrounding structures may be palpable as a hard mass. Spread to the lymph glands may be palpable in the groins or pelvis. Bony metastases to the lumbar spine or pelvis are often tender to palpation. PSA (Prostate Specific Antigen) is a substance excreted by all prostate cells. The blood level of PSA is elevated in prostate cancer and the level of elevation correlates with the extent of disease. The PSA level can also be elevated by benign diseases such as prostatitis and benign prostatic hyperplasia. The normal range for PSA is 0 - 4 ng/ml. The higher the PSA the greater is the chance of having prostate cancer. Somebody with a PSA of 4 - 10 ng/ml has a 25% chance of having prostate cancer, while a PSA of greater than 10 carries a 50% risk of the disease. Very high levels of PSA (>100ng/ml) almost invariably indicate widespread metastatic disease.

The diagnosis of prostate cancer is confirmed by needle biopsy and histological analysis of the biopsy specimens. A transrectal ultrasound scan is performed via a probe inserted into the rectum, and ultrasound guided needle biopsies of the prostate are taken. The procedure is performed under local anaesthetic

Screening

All healthy men over the age of 50 years should have annual prostate cancer checks. Black men and men with a positive family history should start at age 40. The aim of screening is to diagnose the disease at an early stage while it is still potentially curable. By the time prostate cancer becomes symptomatic it is usually beyond cure. The screening tests consist of a digital rectal examination and a PSA blood test. The prostate gland may feel entirely normal despite the presence of an early cancer. The combination of PSA and digital rectal examination is more sensitive than either test alone. If one or both of these tests are abnormal a transrectal ultrasound and needle biopsies of the prostate gland are performed.

Incidental finding following TURP

Whenever a transurethral resection of the prostate gland is performed for suspected benign disease the removed tissue is sent for histological analysis. Occasionally evidence of unsuspected prostate cancer is found in the tissue. In a young man with an otherwise long life expectancy this is obviously significant. A tiny focus of cancer in an elderly man is probably not significant, since the prostate cancer will not have sufficient time to become bothersome.

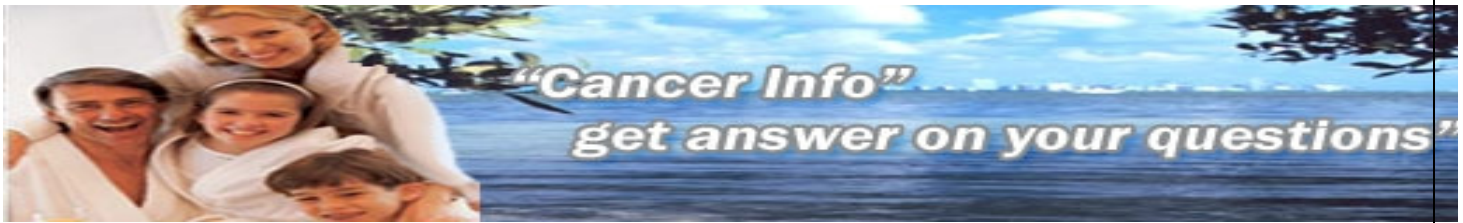
7 Seeking Medical Help (Enlarged prostate)

Contact a doctor urgently if you experience any of the following:

- Severe difficulty passing urine
- Blood in urine
- Urinary incontinence

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- Urinary tract infection or other complication of BPH
- Suspected kidney impairment
- Inability to pass urine (retention)

Consult a doctor if you experience any bothersome symptoms.

The acute (sudden) inability to pass urine is painful and will necessitate a hospital or doctor's visit. Retention of urine can also come on slowly with a progressively worsening stream and eventual overflow incontinence.

In this scenario the bladder never empties properly, which can lead to obstructive kidney failure and other complications such as infections or stones.

Blood in the urine should never be assumed to be due to prostatic enlargement unless all other more serious causes, such as bladder cancer, have been ruled out.

Any man over 50 years should have a yearly prostate check to rule out prostate cancer. Black men, who are at higher risk for this kind of cancer, and men with a positive family history of prostate cancer should start their prostate checks at age 40. The aim of yearly prostate checks is to diagnose prostate cancer early, when it is still curable.

Early prostate cancer is usually completely asymptomatic. Men who have had previous surgery for BPH (i.e. TURP or open prostatectomy) are not exempt from the risk of prostate cancer.

Prostate cancer classically develops in the outer part of the gland, which is not removed during operations for BPH.

Visit preparation (prostate cancer)

No specific preparation is needed for the first visit. The health professional will take a detailed medical history and perform a physical examination. The physical examination should include a digital rectal examination of the prostate gland. The health professional will almost certainly require a urine sample. It is a good idea not to empty the bladder shortly before the appointment. A blood sample will be taken to measure the level of PSA.

8 Treatment of prostate cancer: Hormonal treatment

Surgical castration by orchidectomy

Surgical castration is the simplest and cheapest way to treat metastatic prostate cancer. The obvious disadvantage is the psychological effect of the loss of the testicles.

LHRH-analogues

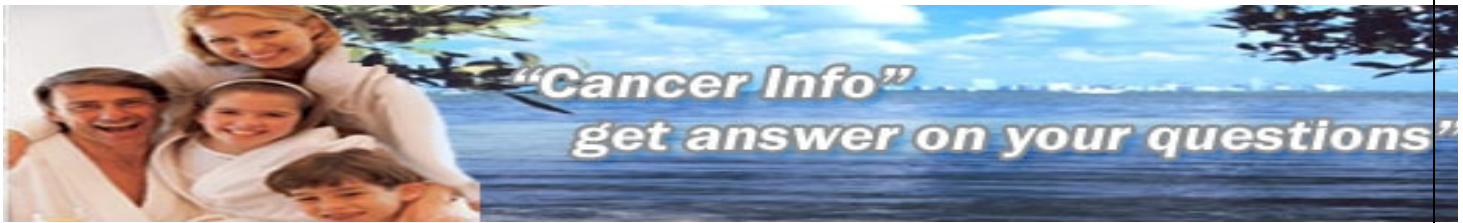
LHRH-analogues and oestrogen achieve a "medical castration" by stopping the testicular production of testosterone. LHRH-analogues are injections that have to be given monthly or three monthly for the rest of the patient's life. They are effective but very expensive.

Oestrogen

Oestrogen can be taken orally on a daily basis. It has a high incidence of thrombotic complications such as stroke and myocardial infarction.

Anti-androgens

Anti-androgens oppose the action of testosterone by blocking the androgen receptors. The incidence of erectile dysfunction is less than with surgical or medical orchidectomy because testosterone levels are maintained in the bloodstream. Anti-androgens alone are probably not adequate treatment for metastatic disease. Total androgen blockade by a combination of steroidal anti-androgens and LHRH-analogues or orchidectomy has not been shown to be better than LHRH-analogues or orchidectomy alone. However, non-steroidal anti-androgens yields slightly better results than castration alone.



Locally advanced disease without metastases.

The overall results of treatment of patients with disease beyond the prostate are not good. Some patients with early disease beyond the prostatic capsule, and no evidence of metastases, benefit from radical treatment. The most widely used treatment regimens consist of a combination of radiotherapy and hormonal treatment.

Treatment options for locally advanced and metastatic disease.

- Early hormonal treatment
- Watchful waiting with hormonal treatment once symptoms develop

Disease that has spread to the seminal vesicles and beyond is not curable. Prostate cancer is dependent on the male hormone testosterone. 80% of patients will respond to hormonal treatment that deprives the tumor of testosterone. This response usually involves the shrinkage of metastases and symptomatic improvement for the patient. The response to hormonal treatment is not a cure but can last for many years in some patients. The average duration of response is 2 years. Most cancers eventually escape hormonal manipulation. This is referred to as hormone independent disease and is usually followed by death within a few months.

Controversy exists regarding the timing of hormonal treatment. Most studies indicate a survival benefit for early rather than late hormonal maneuver. Testosterone deprivation has side effects like erectile dysfunction, breast enlargement and osteoporosis. The earlier hormonal treatment is instituted the greater the chance of complications. Once again treatment has to be individualized to the needs of the specific patient.

9 Staging and grading of prostate cancer

Staging and Grading

Once the diagnosis of prostate cancer has been made the disease has to be staged and graded. The stage refers to the extent and spread of the disease while the grade refers to the nature (aggressiveness) of the particular tumor. Staging will determine the extent of disease and provide important prognostic information that will influence the management decisions.

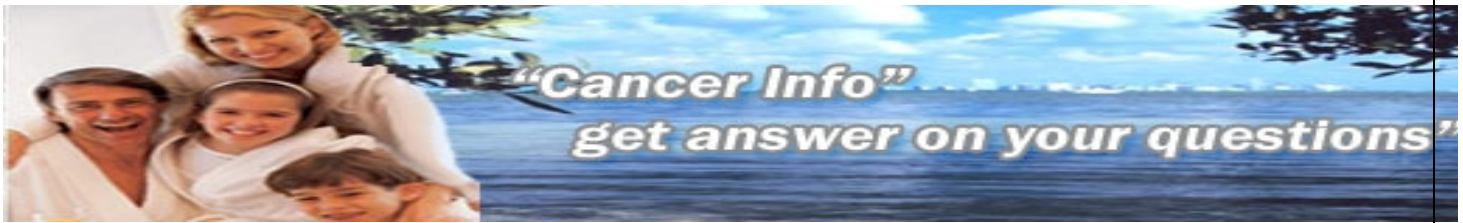
Staging investigations

- PSA
- X-rays of lumbar spine and pelvis
- Chest X-ray
- Radionuclide bone scan
- MTI scan of pelvis

TNM Staging system

T stage (extent of primary lesion)

- T1 - tumor confined to prostate, not palpable or visible on TRUS
- T2 - tumor palpable or visible on TRUS but confined to prostate
- T3 - spread beyond the prostatic capsule
- T3a - extracapsular spread only
- T3b - involvement of the seminal vesicles
- T4 - invasion into rectal wall, bladder neck or pelvic wall



N (Nodal) status

- N0 - regional nodes not involved
- N1 - regional nodes involved by tumor

M (Distant Metastases)

- M0 - no distant metastases
- M1 - distant metastases present

Grading

Grading refers to what the cancer looks like under a microscope. The most commonly used system is the Gleason grade and score. The glandular pattern is compared to that of a normal prostate and scored out of 5, where 1 resembles a pattern very close to normal and 5 resembles severely distorted glandular architecture. The two predominant glandular patterns within the cancer are graded out of 5 and the combined score calculated out of 10. The higher the Gleason score, the more aggressive is the tumor and the worse is the prognosis.

Patients with cancers confined to the prostate (T1 and T2) and no involvement of the lymph nodes or other organs (N0 and M0) are potentially curable by surgery or radiotherapy. Patients with disease beyond the prostate are not curable.

10 Risk factors for enlarged prostate

Proven

- Ageing
- Testosterone

Probable

- Genetic

Possible

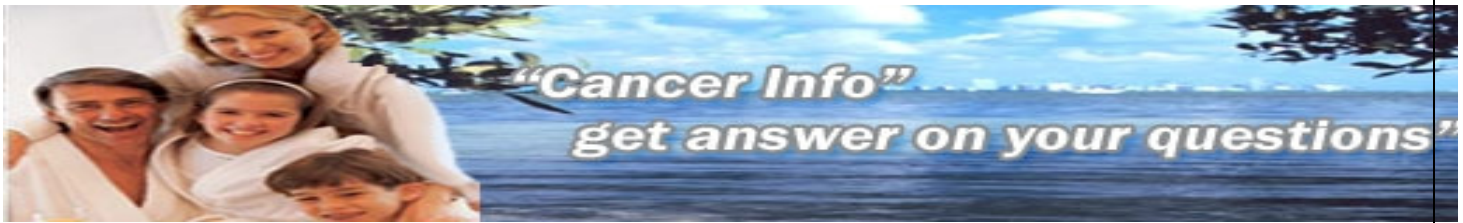
- Western diet
- Hypertension
- Diabetes
- Obesity
- Industrialised environment
- Increased androgen receptors
- Oestrogen/testosterone imbalance

Any normal man will develop BPH if he lives long enough. Time and male hormones (dihydrotestosterone and testosterone) are the only proven risk factors for developing BPH.

Prostate cells are much more sensitive to dihydrotestosterone than testosterone itself. An enzyme specific to the prostate, 5-alpha reductase, converts testosterone to dihydrotestosterone. Men who are castrated in their youth, or who lack 5-alpha reductase, do not develop BPH.

Recent studies indicate a probable genetic link for BPH. A male with a first degree relative who has had surgery for BPH has a four times' increased lifetime risk of needing prostate surgery himself. This genetic link is especially strong for men under 60 years of age with large prostates.

Some studies indicate that male hormone receptors (androgen receptors) may be increased in BPH cells. The role of environmental factors such as diet, obesity and an industrialized environment is not entirely clear.



11 Interesting facts about prostate cancer

Here are some interesting facts concerning prostate cancer and its treatment.

- One in 10 000 men under the age of 40 develop prostate cancer, whereas one in eight men between the ages of 60 and 80 suffer from the disease.
- For some reason not yet fully understood, the rate of prostate cancer among black men is higher than that of other race groups. A possibility exists that higher levels of testosterone may be responsible.
- Many men die with prostate cancer, but not from it.
- Although it has not been proven conclusively, it is thought that a diet high in fats could lead to increased testosterone production.
- Lack of exercise can lead to general ill-health and makes someone more susceptible to all sorts of diseases, prostate problems included.
- A man with three first degree relatives with prostate cancer has a ten times increased risk of developing prostate cancer himself.
- The prostate needs time and male hormones to develop cancer. Testosterone does not cause prostate cancer, but is essential for prostate cancer to develop.
- Men whose mothers or sisters have developed breast cancer are also at increased risk for prostate cancer.
- Because prostate cancer generally takes so long to develop, many doctors opt for the so-called 'watchful waiting' as a treatment option.
- Besides castration at a young age, which is obviously not a viable option, there is no certain way of preventing prostate.

12 Living with cancer

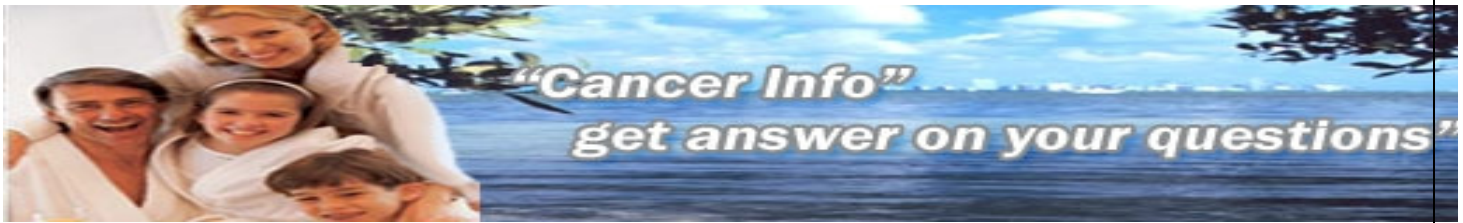
Emotional issues

There are so many different aspect of living with cancer – from the pure medical issues, to emotional aspects, to the impact on the family as well as daily living considerations.

Are you sitting down? Accept that getting a cancer diagnosis is a shock to the system and people often go through the normal stages of grieving – from denial, bargaining, anger and depression and finally acceptance. How you deal with this depends much on the type of person you are and how they have dealt with similar issues in your life.

Don't go it alone. There are people who are professional counselors specifically trained to deal with people who have cancer. Sometimes it may be difficult to speak about your real feelings to family or friends, because they are also emotionally involved. A counselor is there for you and will help you come to terms with the things that you may be struggling with in a caring but neutral environment.

Join a support group. These are invaluable. Support groups go a long way towards helping people deal with the psychological aspects of living with cancer. Sharing experiences with people who are also experiencing firsthand what you are going through, goes a long way towards making things easier to live with. Here you can freely speak your mind without fearing that what you say might affect your relationships at home or with friends.



Deal with depression. Accept that there will be times when you feel lonely, depressed and sad. If you never feel this way, you are probably not facing up to the situation. Don't feel guilty when you feel depressed – it is a normal reaction in the situation. Learn to recognize the signs of depression – early awakening, excessive sleeping, a change in eating habits, a lack of interest in things that formerly

interested you, a feeling of continuous fatigue – and take action when they continue for longer than two weeks.

Family matters. Families will react in very different ways. In crises families tend to behave the way they always do, just more pronouncedly so. If a family is into avoidance, this is how this situation will be dealt with. Or if they are generally supportive, that will be the main trait of how they deal with a cancer diagnosis in one of the members of the family. Family counseling might ease the situation for everyone.

Decisions, decisions. It is possible that practical things may change for a while and that the person with cancer may need extra assistance and care. Discuss the options and deal with practical issues such as transport to and from medical appointments, possible home nursing if necessary, what to tell friends and family, medical costs, leave from work, the division of the household tasks for the time the family member with cancer may not be able to perform his/her share of the housework. There is no point at all in avoiding these topics as they are much easier to discuss beforehand than when they arise.

Tips for daily living

Water, water everywhere. Drink at least eight to ten glasses of water per day. This not only prevents constipation, but helps your kidneys to cope with the medication you may be taking.

Short cuts. If you are going to have chemotherapy, chances are that your hair may fall out. If you cut it short before the time – this way there will be much less hair to lose and the change will not be that remarkable, should your hair fall out.

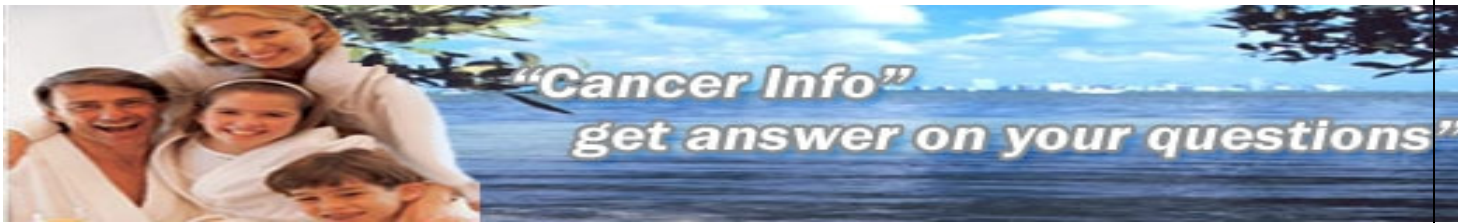
Cut out the coffee. If you have problems with diarrhoea, caffeine in any form will make this worse. Remember that there are many cola drinks that contain caffeine – look out for these.

Watch your temperature. You are most susceptible to bacterial infections 7-12 days after chemotherapy. Watch out for any signs of an increasing temperature and go and see your doctor. Wash your hands frequently and avoid close contact with anyone who is ill, as you are also very susceptible to viral infections.

Three meals a day. If you are on any type of cancer medication, you should not skip meals. A small meal is better than no meal at all. Nausea is often a problem, especially if you have had chemotherapy. An empty stomach will worsen all symptoms that you do have. Starches such as rice and bread and potatoes are generally well tolerated. Remember fruit and vegetables are good for you too.

Bed knobs and broomsticks. Delegate as much of the heavy housework as you can. The things that you do have to do, should be spread out over the week. Remember that fitting long handles on brooms and dusters can alleviate the bending you have to do normally. Take regular breaks and get a high chair so that you can wash dishes and iron while sitting down.

Be freezer wise. If you are living by yourself, cook more than you need on the days you are feeling better. You will be very grateful on other days if you can just pop something into the microwave.



Put your money where your mouth is. Spend money on decent mouthwash – chemotherapy as well as other cancer treatments can play havoc with the inside of your mouth. The cells inside your mouth are rapidly dividing cells – the ones targeted by chemotherapy. You may develop mouth ulcers. A mouth wash and regular brushing with a soft toothbrush could go a long way towards preventing mouth ulcers.

Enjoy yourself. Just because you have cancer doesn't mean that you have to stop doing all the things you really enjoy, whether it is seeing people, going to the movies, reading, watching sport, cooking, going to the theatre, going to the pub. You might have to make minor adjustments to make things a little easier, but it is important that you should enjoy yourself as well.

The magic of sleep. Sleep gives your body a chance to regenerate and recover. Usually adults need about seven hours. Try and get an extra hour of sleep every day, if possible. The medication you take can put extra stress on the body – try for an afternoon nap as well.

Get some fresh air. Even if you are not well enough to exercise, an hour or two in the sunshine or somewhere outside where it is pretty can do wonders for your sense of wellbeing. If you are well enough to go for a walk, do so – walking is pleasant and very beneficial exercise.

Friends indeed. This is the time when you will find out who your true friends are. When you are having a tough time, or need someone to talk to, or need to go out somewhere nice like the movies, friends are invaluable. Don't be afraid to ask – chances are you would have been there for them had the situation been reversed.

No pain, no pain. With modern medical science being what it is, there is no reason why anyone should endure inordinate pain on an ongoing basis. If your painkillers do not work, or if they have nasty side effects, get something else from your doctor.

Bathroom blues. Move into the bedroom closest to the bathroom, especially if you have difficulty moving. Have a handrail installed if you need it. Remember that showering is always easier than bathing. Put a panic button in the bathroom in case you fall or get stuck or injured.

Bring on the entertainment. Many people who spend long periods of time in bed complain of boredom. There is much that can be done to alleviate this. The radio, magazines and books, cable TV, books on tape and videos are but a few examples of things that can be done to combat boredom. Get a book or magazine holder, so that you don't have to balance the weight of books or magazines while you are reading.

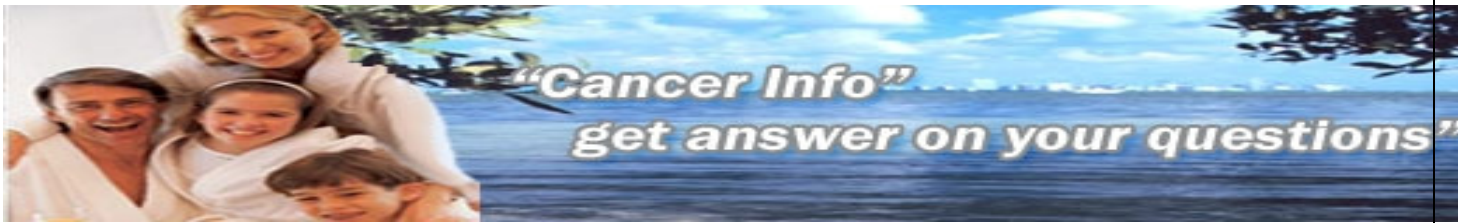
Life line. Get a telephone next to your bed. This is a good idea not only in an emergency, but is also nice for social contact. A cell phone/mobile phone that you can carry around in the house with you is also great. Pre-programme emergency numbers.

The medical side

There are so many different aspects of living with cancer – from the pure medical issues, to emotional aspects, to the impact on the family as well as daily living considerations.

One thing that has changed dramatically in the last thirty years though, is that the chances of survival have increased dramatically. Cancer is by no means a death sentence these days – on the contrary. Each person's experience of cancer is different – people have different world views, different home circumstances, different financial situations, and last, but not least, different types of cancer.

The following general tips might be useful to you:



Knowledge is power. Find out as much as you can about the type of cancer you have. Very often what we can imagine in our ignorance is far worse than the truth. However, check the source of your information carefully, especially on the Internet. Get your doctor to recommend some books or some websites with well-researched and accredited information. Find out about the different treatments, different types of medication and the pros and cons of all of these.

Choose the right doctor. You need to find someone with the right mix of good medical knowledge and bedside manner. This is a traumatic time in your life and the last thing you need is to feel that your doctor is not sufficiently caring, informative or understanding

Get listed. Make a list of all the questions you need to ask the doctor. In the consulting room it is often difficult to remember everything you wanted to ask. Remember that you are probably not medically trained, therefore there is no such thing as a stupid question. If the doctor uses any terminology you do not understand, say so and ask for an explanation. You are paying for the consultation – get your money's worth.

Make informed decisions. Depending on your condition, you might have to decide whether you want to undergo surgery, radiotherapy or chemotherapy. Find out as much as you can about the different treatments and their side effects and their possible benefits. Accept that when it comes to something like chemotherapy, there is little correlation between how it makes you feel and the long-term benefits you could be deriving from it.

Do not self-medicate. If you get headaches, or suffer from diarrhoea or even get flu, get to your doctor. There are over-the-counter medications that could interfere with your cancer medication. Lifestyle and diet changes should only be undertaken under medical supervision. If your medication has side effects, do not stop taking the tablets without consulting your doctor first. This could have very serious consequences.

Stick to instructions. Take medication at the time you are supposed to and follow the instructions carefully. If you stick to instructions from your doctor, chances of complications become reduced and the working of the medication is at its most efficient. Also try to stick to any lifestyle recommendations your doctor has made – difficult as they may be. In the long run, the sacrifice will be to your advantage.

13 Lifestyle and diet as causal factors of cancer

80 percent of cancers can be prevented if people were to adhere to three simple rules:

- Stay out of the sun
- Eat healthy food including lots of fruit and vegetables
- Stop smoking

Skin cancer

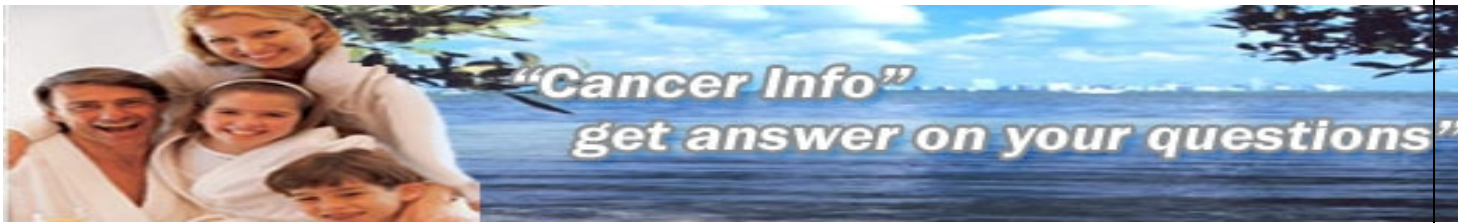
White Australians and South Africans have the highest incidence of skin cancer in the world, but 90 percent of all skin cancers are curable – if detected early.

Traditional diet

Black people living in rural areas (South Africa) have a high incidence of oesophageal cancer as a result of their traditional diet, which contains very little fibre. Other factors contributing to this are cooking methods, grain storage methods and a high consumption of home-brewed beer. The incidence of these cancers becomes much lower if people move to the cities where fresh fruit and vegetables are more readily available.

Smoking and drinking

Smoking and drinking also appear to play a major factor in the incidence of cancer. It is estimated 30 percent of all cancers are smoking-related. As more and more women have become smokers in recent decades, so the incidence of lung cancer has risen amongst them. While breast cancer appears to be



oestrogen-related in some way, it has also been noticed that a fair percentage of women who develop breast cancer consume fair amounts of alcohol.

Genetic factors

Genetic factors also play a role. It does sometimes happen that healthy young people who get exercise, eat healthily, stay out of the sun, don't smoke and don't drink, get cancer. To a certain degree, it remains a mysterious disease, but one, if detected early, can mostly be sorted out by means of the right medical attention.

Diet the determining factor?

Epidemiologists who have studied the prevalence of cancer amongst the different populations of the world have found that diet determines 40 percent of all cancers. The incidence of different types of cancer in different regions points to diet being instrumental in the causing of cancer. Studies appear to disprove genetic determinants, as cancer incidence amongst immigrants to a new country quickly takes on the characteristic incidence of those already living there.

Eating the wrong type of food can increase one's chances of getting cancer by 40 percent. Eating the right kind of food containing cancer-fighting molecules, such as fruit and vegetables, can make a huge difference.

Folic acid

Scientists have found that folic acid and B vitamins play a huge role in cancer prevention, especially colon cancer. It occurs naturally in spinach and green beans, but loses 80 percent of its properties when cooked. When it is synthetically produced, it loses nothing in the cooking process. Folic acid has been found to counteract birth defects, such as spina bifida. It also reduces the incidence of heart attacks and lowers the prevalence of cancer in a population. In the fight against heart disease, the intake of folic acid is just as important as the avoidance of cholesterol. Folic acid appears specifically to counteract cancer of the oesophagus and the colon. Many first world countries enrich refined flour products with folic acid. The USA add 1400 micrograms of folic acid per kilogram of flour. The first studies have appeared finding that birth defects have decreased since this has been done. Furthermore, it seems to slow down degenerative diseases and reduce the incidence of heart diseases.

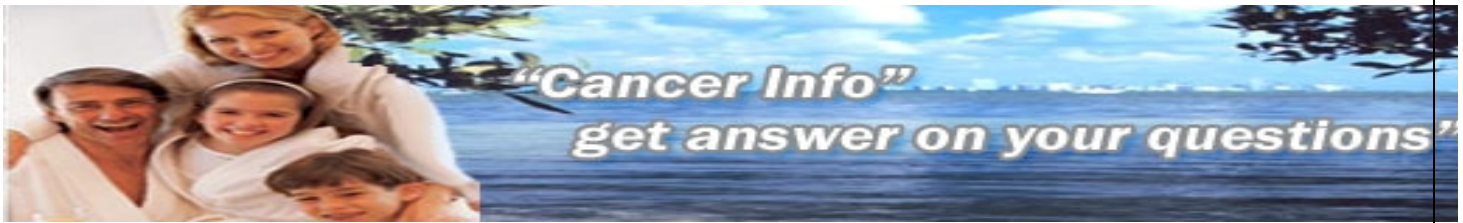
The modern diet and fatty acids

Another major problem of the modern diet is that we consume far too many Omega 6 fatty acids. These are found in fatty foods, margarine, and most importantly, sunflower cooking oil. Omega 3 fatty acids, which are good for us and help in the fight against cancer, are contained in cold-pressed olive oil and the much cheaper Canola Oil. Many products also contain a combination of the two – a fact which is not always made clear on the packaging.

Something has gone seriously wrong with our modern diet. The incidence of cancer, especially breast and prostate cancer, has increased dramatically. The former seems to increase dramatically in a population where the per capita fat intake is high.

Refined flour products

The problem lies with the foundation of the food pyramid, namely refined flour products, such as white bread and pasta. The enormous consumption of salt and refined sugar is also a problem. Our salt consumption is up to ten times higher than it should be. Furthermore, our bodies do not need to consume sugar, as we can produce our own from carbohydrates. Refined foods used to be only available to the very rich, whereas the general population tended to eat more healthy and less expensive whole wheat products. With the advent of the Industrial Revolution, it became easy to refine all wheat, thereby removing much of the nutritional value it contained.



The diet of the hunter-gatherer resulted in his having a 1/1 ratio of Omega 6/ Omega 3 fatty acids. The ration in the USA today is 10/1. It is not difficult to see that this change must have some impact.

Anti-carcinogenics

More and more studies have been done recently about anti-carcinogenics. Huge studies have been done in the USA with the help of the so-called Cohort Group of 100 000 volunteers, who are all in some way involved with the medical professions. It has been found that the red colorant in tomatoes suppresses the incidence of prostate cancer by up to 50 percent. Tomatoes in all its forms, cooked, raw, pureed in tins or tomato sauce is a powerful anti-oxidant and should be consumed by everyone in vast quantities. It is also cheap and freely available.

There are chemicals in garlic and onion that stimulate the production of enzymes that neutralizes cancer-producing cells.

14 Cancer and diet

Step 1: Understanding the relationship between cancer and food

Epidemiologists who have studied the prevalence of cancer amongst the different populations of the world have found that diet determines 40 percent of all cancers. The incidence of different types of cancer in different regions points to diet being instrumental in the causing of cancer. Studies appear to disprove genetic determinants, as cancer incidence amongst immigrants to a new country quickly takes on the characteristic incidence of those already living there. Eating the wrong type of food can increase one's chances of getting cancer by 40 percent.

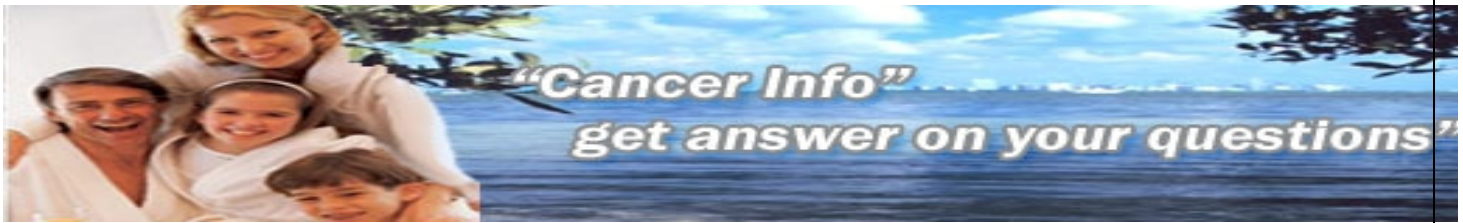
Eating the right kind of food containing cancer-fighting molecules, such as fruit and vegetables, can make a huge difference. Genetic factors also play a role. It does sometimes happen that healthy young people who get exercise, eat healthily, stay out of the sun, don't smoke and don't drink, get cancer. To a certain degree, it remains a mysterious disease, but one, if detected early, that can mostly be sorted out by means of the right medical attention.

Cancer occurs when there is a mutation of the DNA. It is when something goes wrong with the DNA that cancerous cells gain a foothold. Many of the foods we eat that contain anti-oxidants and anti-carcinogenics and other cancer-fighting chemicals, close ranks around our DNA, which prevents cancerous mutations.

Step 2: Adopting new healthy habits

There are many ways in which individuals can lower their cancer risk by changing their habits:

- Stop smoking.
- Don't drink more than two drinks daily.
- Stay away from known cancer-causing substances, pollutants and chemicals.
- Don't get sun burnt.
- Visit your doctor if you stay tired, or take too long to recover from an illness.
- Exercise three to four times weekly.
- Lose weight if you are overweight.
- Watch your diet. Certain foodstuffs are anti-carcinogenic, others have antioxidant properties and others are high in fibre. Some foods should be avoided and others need to be consumed in greater quantities.



Step 3: The basic principles of diet in the prevention of cancer

Major problems of the modern Western diet:

1. Too much fat. We consume far too many fats, and specifically Omega 6 fatty acids and trans fatty acids, and too little Omega 3 fatty acids. Omega-6-fatty acids are found in fatty foods, margarine, and most importantly, sunflower cooking oil, and trans fatty acids in brick margarine and reheated oil.

Omega 3 fatty acids, which are good for us and help in the fight against cancer, are contained in cold-pressed olive oil and the much cheaper Canola Oil. The diet of the hunter-gatherer resulted in his having a 1/1 ratio of Omega 6/ Omega 3 fatty acids. The ration in the Western countries today is 10/1. It is not difficult to see that this change must have some impact.

The incidence of cancer, especially breast and prostate cancer, has increased dramatically in the last few years. The former seems to increase dramatically in a population where the per capita fat intake is high.

2. Too much refined flour products. The problem lies with the foundation of the food pyramid, namely refined flour products, such as white bread and pasta. Furthermore, our bodies do not need to consume sugar, as we can produce our own from carbohydrates. Refined foods used to be only available to the very rich, whereas the general population tended to eat more healthy and less expensive whole wheat products. With the advent of the Industrial Revolution, it became easy to refine all wheat, thereby removing much of the nutritional value it contained.

3. We consume too little anti-carcinogenics. Huge studies have been done in the USA with the help of the so-called Cohort Group of 100 000 volunteers, who are all in some way involved with the medical profession.

Important anti-carcinogenics include:

- It has been found that the red colorant in tomatoes suppresses the incidence of prostate cancer by up to 50 percent. Tomatoes in all its forms, cooked, raw, pureed in tins or tomato sauce is a powerful anti-oxidant and should be consumed by everyone in vast quantities. It is also cheap and freely available.
- There are chemicals in garlic and onion that stimulate the production of enzymes that neutralizes cancer-producing cells.
- Fresh fruit and vegetables contain lots of anti-carcinogenics.

Don'ts:

Limit or avoid the following foodstuffs:

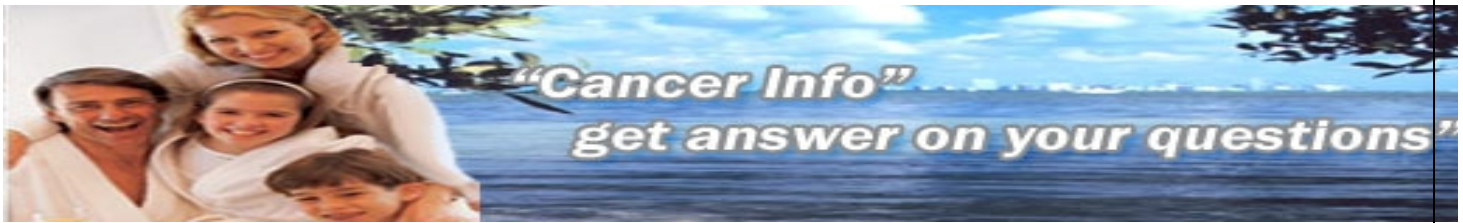
- Animal fats, found in many different types of meat and dairy products.
- Large quantities of margarine are also unhealthy.
- Refined flour products are also problematic as is a high consumption of alcohol.
- High consumption of salt and sugar is also unhealthy.

Dos:

Up you intake of the following foodstuffs:

- Foodstuffs high in B vitamins and folic acid, such as green beans and spinach.
- Foods containing Omega-3 fatty acids, such as fish (tuna, salmon and mackerel, in particular) and olive oil not only lower cholesterol, but play an important role in combating the damage done by Omega 6 fatty acids.
-

Fresh fruit and vegetables should be eaten regularly, as should wholewheat grain products. In particular, vegetables that have cancer-fighting properties include green leafy vegetables and garlic and onions, both of which produce enzymes that neutralise cancer-producing cells. High consumption of tomatoes is also very beneficial.



15 Smoking and cancer

“Smoking is responsible for thirty percent of all cancers. Research has shown that twenty-five thousand people die from smoking-related diseases in South Africa every year. There are only two causes of death rising worldwide – HIV/AIDS and smoking related illnesses.

Tobacco smoke contains more than 4500 chemical compounds, 43 of them known carcinogens. Despite what tobacco companies want people to believe, studies have shown that smoking increases the risk of all cancers, including cancer of the lungs, the mouth, the tongue, the larynx, pancreas, the bladder and breast cancer in men.

Furthermore, the health risks of cigarette smoking are not limited to smokers. A non-smoker’s risk of developing lung cancer is significantly increased by being exposed to carcinogens present in environmental tobacco smoke.

Cigarettes and other forms of tobacco are addictive and the addiction is similar to those that determine cocaine and heroine addiction, according to a study released by the US surgeon general. This partially explains why quitting smoking is so difficult. But within 48 hours of giving up, your body starts to repair the lung damage.

16 Prevention of prostate cancer

Unfortunately the only certain way of preventing prostate cancer is castration at a young age. A diet low in animal fat and high in phyto-estrogens is probably beneficial although this has not been proven beyond doubt. Regular intake of free-radical scavengers such as selenium, vitamin E, and vitamin A have been associated with a lower incidence of prostate cancer. Green and black tea can slow down the spread of prostate cancer, while a highly touted antioxidant found in red wine, grapes and peanuts does not perform well as a cancer preventive.

More Information you get from the following partner links: (STRG+click-following the link)

Dr. Mike Thompson Listen a free brief introduction

[HEALTH EXPERT REVEALS](http://www.cancer-info.info/a/cancerhealth.html)

<http://www.cancer-info.info/a/cancerhealth.html>

NATURAL CANCER TREATMENT

[ALTERNATIVE CANCER TREATMENT](http://www.cancer-info.info/a/natcanc.htm)

<http://www.cancer-info.info/a/natcanc.htm>

THIS INFORMATION COULD SAVE YOUR LIFE ...

HOW OVER 2,000 PEOPLE HAVE SUCCESSFULLY USED THE ALTERNATIVE CANCER TREATMENTS YOU'LL FIND REVEALED IN THIS E-BOOK. DISCOVER OVER 350 GENTLE & NON-TOXIC CANCER TREATMENTS THAT NO-ONE ELSE WILL TELL YOU ABOUT!