

## **Cancer – Did You Know?**

There are many myths and half truths about cancer readily available on the internet and elsewhere – **What should you as a member of the public believe?**

### **Discover the Facts with CANSA...**

Visit our Website [www.cansa.org.za](http://www.cansa.org.za) or contact CANSA toll free at 0800 22 66 22 or at [info@cansa.org.za](mailto:info@cansa.org.za) if you have any additional queries or if you require more evidence-based information on these or other topics. [Read more about cancer myths here...](#)

#### **1. Myth - There is nothing I can do to prevent cancer**

##### **Fact - wrong!**

At least 30-40% of cancers are preventable. Potential cancer risks can be significantly reduced by avoiding cancer causing agents and by adopting [a healthy balanced lifestyle](#). Many cancers can be prevented if one avoids tobacco, eats a healthy diet, exercises regularly, protects oneself from excessive sun exposure, limits or avoids drinking alcohol, as well as goes for recommended screenings regularly.

At least twenty per cent (20%) of cancers are caused by infections (mostly viral) in third world countries like South Africa. Effective vaccinations are available to protect against the human papilloma virus (HPV) which is the major cause of cervical cancer as well as the Hepatitis B vaccine which protects against primary liver cancer. CANSA advocates for the HPV vaccination of all girls reaching puberty (mainly 9 to 10-year olds). CANSA further urges parents/guardians and health professionals to ensure that all babies receive the full course of Hepatitis B vaccine (3 doses) which is part of the standard immunisation schedule to ensure effective protection.

#### **2. Myth - Cancer is always fatal**

##### **Fact – wrong!**

[Cancer is a serious disease](#) that may cause death. However, ongoing new breakthroughs in prevention, early detection and more specific treatment regimens are promoting more effective control measures and help to make cancer a more manageable disease. It is estimated that more than 40% of adult cancer patients and 60% of childhood cancer patients are successfully treated for cancer in South Africa.

#### **3. Myth - Cancer is a disease of white people only**

##### **Fact – wrong!**

Cancer occurs among people of all races, creeds, ages, genders, rich and poor – it knows no boundaries. Although most cancers occur proportionally more in white people, research data indicates that cancer is a disease of all people. According to the [2004 National Cancer Registry](#) (the most recent statistics available) the following number of cancer cases were recorded in South Africa, indicating that the number of new cases observed for 2004 were higher in black people if some skin cancers, Squamous Cell Carcinoma (SCC) and Basal Cell Carcinoma (BCC) are excluded:

	<u>All Cancers</u>	<u>Excluding BCC and SCC</u>
✓ Asian males	617	590
✓ Asian females	748	701
✓ Black males	8 529	7 996
✓ Black females	12 232	11 802
✓ Coloured males	3 454	2 525
✓ Coloured females	3 469	2 837
✓ White males	14 936	7 321
✓ White females	11 807	6 641

#### **4. Myth - Skin Cancer is not a deadly disease and only affects Caucasion | fair skinned individuals**

##### **Fact – wrong!**

Although skin cancer death rates are lower than most other forms of cancer, thousands of people still lose their lives from skin cancer every year. The majority of these deaths are due to malignant melanoma, the most dangerous form of skin cancer. Everyone is at risk for skin cancer, though cases are most prevalent in those with lighter skin. Although darker skinned people have higher concentration of melanin present in their skin which helps protect against UV radiation, a study by researchers at NY School of Medicine in 2010 found that UVA radiation damages the DNA of these cells (the human melanocyte cells). This causes mutations that might lead to malignant melanoma. A higher prevalence rate for all skin cancers is also found among people with albinism. [Read more about skin cancer and solar radiation here...](#)

#### **5. Myth - Fair skinned people only need to apply sunscreen and then only once a day for proper protection while on the beach**

##### **Fact – wrong!**

The sun constantly produces ultraviolet rays which penetrate clouds and affects one's skin even during cold weather. It also reflects off water and other surfaces like cement and sand. UV exposure increases 8-10% for every thousand feet above sea level as the air is thinner, with lesser atmosphere present to filter the rays and therefore the sun is more powerful. The rays are most intense during midday hours (10:00 – 15:00) when the sun is at its highest in the sky.

Sunscreen works only for a limited time. You should apply sunscreen 20 minutes before being exposed to the sun, then reapply sunscreen every two hours. Also reapply sunscreen after swimming, dry toweling or participating in any activity that causes perspiration.

Use sunscreen with a sun protection factor (SPF) of at least 20 for dark skinned people and up to 50 for very fair skinned people. SPF refers to protection only against UVB rays responsible for burning of the skin. According to the Skin Cancer Foundation, Cancer Council Australia and the Skin Cancer College of Australia and New Zealand the higher SPF rate is an indication of the ability to block out UVB rays and not only an indication of the duration of protection offered by the sunscreen against UVB radiation. CANSA supports the aforesaid and further recommends the use of umbrellas, wide brimmed hats, sunglasses with UV 400 protection and tightly woven clothing to cover up additional body areas exposed to the sun's rays. [Read more about skin cancer and solar radiation here...](#)

## **6. Myth - Using indoor sunbeds (tanning beds) does not cause skin cancer**

### **Fact –wrong!**

Tanning beds have been classified by the International Agency for Research on Cancer (IARC) as a Group I carcinogen (a cancer causing agent which definitely causes cancer in humans). These machines have the capacity to emit very high levels of UV radiation many times stronger than the midday summer sun in most countries. The Sunbed industry is still unregulated in South Africa.

Recent studies, like the study in Norway, indicate sunbed use as an increased risk for malignant melanoma when regularly used by women. Skin cancer in later life is commonly linked to two – three incidences of skin damage caused by severe sunburn in children younger than eighteen years of age. Sunbed use has therefore been banned in at least eighteen (18) countries for children younger than 18 years. Any tan (no matter how obtained) is a sign of skin damage. To prevent skin cancer, limit exposure to the sun between 10:00 and 15:00 and avoid sunbeds. Read [CANSA's Fact Sheet on Solar Radiation and Skin Cancer](#) for additional information. CANSA is currently advocating the ban of sunbed use for all younger than 18 years.

## **7. Myth - Electro-magnetic radiation exposure does not increase the risk for cancer**

### **Fact – wrong!**

Electro-magnetic radiation (EMR) forms part of non-ionizing radiation, a term given to radiation emitted from devices that produce, transmit or use electric power. It includes electric and magnetic fields, radio waves, microwaves, infrared, ultraviolet and visible radiation. Some sources of EMR are power lines, cell phone masts or towers (transmitters), as well as household electronics like televisions, microwave ovens and wireless communication devices like cell phones.

Over the past 15 years, there have been several studies evaluating children's and adults' residential exposures to electric and magnetic radiation in relation to risks of some brain cancers like glioma, leukaemias, lymphomas and breast cancer. Although many findings have been inconclusive, IARC classified radio frequency electro-magnetic fields as possibly carcinogenic to humans (Group 2B) following a long term study in fourteen (14) countries. This cohort study showed evidence of an increased risk for glioma and acoustic neuroma linked to the “heavy use” of cell phones with a reported average of 30 minutes use per day over a ten (10) year period. It is therefore wise to take measures to reduce exposure to cell phone radiation by making use of ‘hands-free’ devices and texting. CANSA recommends as a precaution while awaiting further evidence, that the public increase the distance between devices that emit EMR and self and further discourage near exposure of children to power lines and transmitters. [Read more...](#)

## **8. Myth - Fluoridated Water causes cancer**

### **Fact – wrong!**

South Africans drink water that contains fluoride. A connection between fluoride in drinking water and cancer has been debated and studied for many years. Although studies in the late 90's showed an increased number of cases of osteosarcoma (bone tumours) in male rats given fluoridated water for two (2) years, a recent report by the USA Centers for Disease Control and Prevention summarised extensive research findings and concluded that studies to date have produced "no credible evidence" of an association between fluoridated drinking water and an increased risk for cancer in humans, although fluoride accumulates in bone. IARC has classified fluoride in drinking

water as Group 3, meaning that it is not classifiable as a cancer causing agent in humans as evidence is insufficient. In South Africa the fluoridation of drinking water is regulated and is still seen as the most efficient way to prevent tooth decay. [Read more...](#)

## 9. Myth - Smoking one or two cigarettes a day won't cause cancer

### Fact – wrong!

You're still more likely to die of a smoking-related disease than anything else - but the risk is lower than if you smoked more. Even smoking a single cigarette can cause the cilia (tiny hair-like structures that move mucus out of the lungs) to become paralysed for up to eight hours preventing the removal of impurities from the airways that could cause lung disease. [Read more...](#)

## 10. Myth - I have smoked for 20 years and the damage has been done. It's now too late to stop smoking

### Fact –wrong!

It is never too late to stop tobacco use. The timeline of quitting smoking shows the following health benefits:

- ✓ 20 minutes after quitting - heart rate and blood pressure drops
- ✓ 12 hours after quitting - the carbon monoxide level in your blood drops to normal
- ✓ 2 weeks to 3 months after quitting - circulation improves and your lung function increases
- ✓ 1 to 9 months after quitting - coughing and shortness of breath decrease; cilia (tiny hair-like structures that move mucus out of the lungs) start to regain normal function in the lungs, increasing the ability to remove mucus, clean the lungs, and reduce the risk of infection
- ✓ 1 year after quitting - the excess risk of coronary heart disease is half that of a continuing smoker's
- ✓ 5 years after quitting - risk of cancer of the mouth, throat, esophagus, and bladder are cut in half; cervical cancer risk falls to that of a non-smoker
- ✓ 10 years after quitting - the risk of dying from lung cancer is about half that of a person who is still smoking; the risk of cancer of the larynx (voice box) and pancreas decreases
- ✓ 15 years after quitting - the risk of coronary heart disease is that of a non –smoker
- ✓ 25 years after quitting - stroke risk can fall to that of a non-smoker

These are just a few of the benefits of quitting smoking for good. Quitting smoking lowers the risk for diabetes, improve the functioning of blood vessels, the heart and lungs. Quitting while you are younger will reduce your health risks more, but quitting at any age can give back years of life that would otherwise be lost if continue to smoke. [QUIT today...](#)

## 11. Myth - Chewing tobacco, snuff, or smoking hubbly bubbly are safe alternatives to the use of tobacco

### Fact – wrong!

There is nothing healthy about any tobacco product. They are all addictive and can cause cancers of the throat, mouth, lungs and are linked to various other cancers such as cancer of the cervix, breast and others. [Read more...](#)

## 12. Myth - Grilled and well done meat is not linked to cancer

### Fact – wrong!

The eating of grilled or pan-fried meats can increase a person's risk for cancer. When meat is grilled, chemicals called heterocyclic amines (HCAs), which are harmful, are created. These chemicals are found in higher quantities when meat is well-done or burnt. Experts recommend limiting the amount of grilled meat in one's diet and avoiding open flame grilling as well as the eating of burnt parts altogether. It is further recommended to marinate and pre-cook meat before grilling to reduce grilling time. Add colourful vegetables and fruit to the grill as harmful chemicals are not formed during the grilling process of these foods. [Read more about a balanced diet...](#)

## 13. Myth – There is no link between cancer and the eating of meat and animal fat, therefore cancer patients can eat meat freely

### Fact – wrong!

In 2011 a review of several studies by prominent scientists, the American Cancer Society and the World Health Organization (WHO) concluded that cancer patients should eat very little or no red meat, which includes beef, mutton, pork, as all these meats are high in iron content which is highly absorbable and is a requirement for cancer cell growth. Certain amino acids in proteins further stimulate the growth of cancers (mainly arginine and methionine). The strongest evidence is with methionine of which pork meat is the main source. Red meat is considered a risk factor for colorectal, prostate, breast, uterus, kidney and other cancers. [Read more...](#)

A China study showed strong correlation between cancer and the amount of protein consumed and not only meat with high animal fat, even lean meat and poultry (white meat chicken) are implicated in certain cancers. Research done by Dr Robert Heatherill of over 200 human studies on nutrition and cancer established that meat is high in fat, overloaded with protein, sodium and easily absorbed iron. It is likely to further contain substances such as dioxin and polychlorinated biphenyl (PCB) as well as hormones and antibiotics, which could inhibit the immune system.

European Prospective Investigation of Cancer (EPIC), a long term study of more than 500 000 people in ten European countries, showed that a diet high in animal fat, red or processed meat increases the risk of bowel cancer and that women who eat high fat diets have higher risks of dying from cancer than those who eat low-fat diets. [Read more...](#)

The meat industry may also use preservatives like nitrites and nitrates to preserve meat and increase the shelf life of processed meat like ham, bacon and sausages. Preservatives are also commonly added to meat to retain its red colour as meat naturally turns a grey-green colour after several days. The nitrites, present in meat products, form nitrosoamines which is a powerful carcinogen (cancer causing agent). Under certain conditions the stomach can increase the conversion of nitrates into nitrites especially if the pH of the gastric fluid is above 5 – a concern as infants have a higher stomach pH. Nitrosoamines can also be produced when meat, containing nitrites or nitrates, is cooked using high heat, e.g. the frying of bacon. Biltong, a favourite South African delicacy, may now also be preserved with the use of nitrates or nitrites (not only salt) and therefore should not be given to babies and infants.

**14. Myth - Canola oil is poisonous and causes blindness, deterioration of the nervous system, Mad Cow Disease and was used to make deadly mustard gas during wartime**

**Fact – wrong!**

Canadian plant breeders used traditional techniques to create the Canola plant from the rape plant in the early 1970's. These special plants were christened 'Canola' from 'Can' in 'Canada' and 'ola' for 'oil low in acid'. CANSA recognises and promotes canola oil as a healthy product (a Smart Choice) as its well-balanced fat composition, especially the low omega-6 to omega-3 ratio of 2 to 1, can help to lower the risk for cancer. Ten per cent of canola oil is omega-3 fatty acid, which counteracts heart disease, cancer and inflammation.

There is no scientific evidence that canola oil or rape seed oil interferes with the central nervous system, vision or cause blindness. Mad Cow Disease is caused by a virus-like organism called 'scrapie' which is found in sheep. When fodder containing dried and milled scrapie-infected sheep offal was fed to cows, the disease was transmitted from sheep to cows. Not a drop of canola oil was involved in this epidemic. Mustard gas is not made from rape seed or canola oil, but by a process whereby a chemical called 'ethylene' is treated with sulphur chloride or dihydroxy-ethyl with hydrochloric gas. Mustard gas, therefore, is produced synthetically and is not derived from rape seed or canola oil.

The negative statements about canola which are repeatedly distributed in anonymous e-mails, have never been proven and are internationally rejected as malicious anti-canola propaganda. About 60 million tons of canola oil is used worldwide annually. [Read more...](#)

**15. Myth - A high ratio of omega-6 to omega-3 fatty acids in food or in human tissue makes no difference to health**

**Fact – wrong!**

There are different kinds of fat in our food and bodies. Omega fatty acid is a special class of fat which plays an important role in cancer and other non-communicable diseases. There are three different omega fatty acids known as omega-3, -6, and -9. Both omega-3 and -6 are known as essential fatty acids as it cannot be produced in our bodies whereas omega-9 can be ingested as well as formed in our bodies. There is a considerable body of evidence that too much omega-6 relative to omega-3 in human tissue could be unhealthy and increase the risk for heart disease, cancer and inflammatory diseases. CANSA promotes food products with a low ratio of omega-6 to omega-3 such as canola oil which contain short chain omega-3's, as well as long chain omega-3's such as Docosahexaenoic Acid (DHA) and Eicosapentaenoic Acid (EPA) which are found in fish oil like salmon which plays an important role in the prevention of cancer. [Read more...](#)

**16. Myth - I take anti-oxidant supplements, I don't need to eat my recommended five portions of fruit and vegetables a day.**

**Fact – wrong!**

Anti-oxidants - such as Vitamins C and E, carotenoids and selenium - are known to fight cancer-causing free radicals in the body. Free radicals come from environmental factors such as pollution and the sun and also from by-products of chemical reactions in the body.

Anti-oxidants are found mainly in brightly coloured fruit and vegetables as well as whole grains, nuts and seeds. Use natural antioxidants or dietary supplements if needed. Synthetic (artificial)

antioxidants may even increase the risk for cancer. Eating of at least five portions of fruit and vegetables every day remains the most cost effective way to ingest most of the needed nutrients inclusive of anti-oxidants. [Read more about a balanced diet...](#)

### **17. Myth - Lemons kill cancer cells**

#### **Fact – wrong!**

No scientific evidence could be found that lemons or molecules from lemons are able to cure cancer. There are, however, some indications of molecules found in lemons (e.g. limonin) acting as a cancer preventive agent. There is also some evidence that lemon molecules can stop the growth of certain tumours in humans. No evidence could be found of lemon molecules functioning better than known anti-cancer drugs. However, based on scientific evidence CANSA is of the opinion that lemons can play an important role in the overall prevention of cancer. [Read more...](#)

### **18. Myth – Graviola (Soursop) is of no importance in cancer prevention or treatment**

#### **Fact – wrong!**

Despite previous beliefs that Graviola is of no importance in cancer control, recent research (2011 and 2012) published in PubMed indicates that Graviola Food Extract (GFE) may provide protection for women against certain types of breast cancer and may in future play an important role in assisting to inhibit the formation and spread of pancreatic cancer cells. However, further studies are required to provide additional scientific knowledge especially clinical trials to confirm efficacy and safety in vivo. [Read more...](#)

### **19. Myth – Mangosteen is of no importance in cancer prevention or treatment**

#### **Fact – wrong!**

Contrary to previous misconceptions regarding mangosteen extract, several recent research findings (2010 to 2012) published in PubMed provides evidence that mangosteen extract has an inhibiting effect on several cancers including cancer of the colon, skin, breast, prostate, glioma and brain tumours as well as malignant melanoma. CANSA believes that mangosteen extract shows promise as an important micronutrient in the prevention of certain cancers like cancer of the colon and promotes that further studies be conducted to ascertain if mangosteen extract could play a role in future as an anti-colon cancer agent in human patients as indicated by clinical studies. [Read more...](#)

### **20. Myth - I am a woman of thirty (30) years of age and therefore too young to get breast cancer.**

#### **Fact – wrong!**

Breast cancer is the most common cancer among South African women. According to the National Cancer Registry (2004) breast cancer (excluding cancer of the skin) is the number one (1) cancer among all females except for Black females where it is the number two (2) most common cancer. It is true that the risk for developing breast cancer increases as one gets older. Most advanced breast cancer cases are found in women over the age of 50. However, more and more cases of breast cancer are now being diagnosed in younger women – as young as 20 years of age. [Read more...](#)

## 21. Myth – Men cannot get breast cancer

### Fact – wrong!

Men do get breast cancer. Although breast cancer is mainly a disease of women, some men also develop breast cancer. Breast cancer is about 100 times less common among men than among women. For all males the lifetime risk of getting breast cancer is about 1 in 788. Research shows that the risk for breast cancer in males increases with the excessive use of alcohol. CANSA further supports the views expressed by the Livestrong Foundation and North Carolina University, that the use of anabolic steroids may cause male breast tissue enlargement which increases the risk for breast cancer in males.

When men do get breast cancer, they often tend to have a more advanced disease based on late diagnosis and are more likely to die from it. Men diagnosed with breast cancer at an early stage, have a good chance to be cured. However, many men delay seeing their doctor if they notice unusual signs such as a breast lump or any tissue growth. For this reason, many male breast cancers are diagnosed when the disease is more advanced. CANSA advises men to seek medical help early at the first sign of a breast lump or tissue growth. [Read more...](#)

## 22. Myth - Only older men get testicular cancer

### Fact – wrong!

Testicular cancer occurs in younger men, particularly during the ages of 15 and 39. It is for this reason that CANSA advises all men to do a monthly testicular self-examination to detect any abnormality early. Men are advised to seek medical help immediately when they notice any change or abnormality of their testes when they do a monthly self-examination. Recent research has shown a definite link between the smoking of dagga (marijuana) and testicular cancer.

CANSA supports the views expressed by the Livestrong Foundation and North Carolina University that the use of anabolic steroids causes the shrinkage of the testes. The North Carolina University further states that anabolic steroids increase the risk for testicular cancer. CANSA therefore advocates that all males, especially young males, should avoid the use of anabolic steroids as it increases the risk for testicular, prostate and other cancers like cancer of the liver. [Read more...](#)

## 23. Myth - A positive attitude is ALL you need to beat cancer

### Fact – wrong!

There's no scientific proof that a positive attitude gives you an advantage to improve your chance of being cured of cancer. A positive attitude will however improve the quality of life during cancer treatment and beyond. A person may be more likely to stay active, maintain ties to family and friends and continue social activities. In turn, this will enhance a feeling of well-being and help to deal with the cancer journey.

It is a fact that religion and spiritual values are important for people to cope with cancer. An analysis of 43 studies on people with advanced cancers, showed that those individuals who reported spiritual wellbeing, were able to cope more effectively with their illness. Spiritual wellbeing includes factors like coping with stress, faith, the ability to live with meaning and hope, connectedness with others as well as self-awareness and empowerment. [Download CANSA's CancerCare Coping Kit Audioprogramme...](#)



## **24. Myth – Alternative therapy can replace the use of conventional cancer treatment like chemotherapy and radiation therapy**

### **Fact – wrong!**

There is currently no scientific evidence that any alternative cancer treatment is more efficacious and safe than current cancer treatment regimens. However, there are many natural substances, like essential fatty acids (e.g. Omega-3), phytochemicals and micronutrients, which are supported by considerable scientific evidence, indicating these substances can reduce the risk for cancers and even inhibit tumour growth - that could be recognised as complimentary to existing conventional therapies to enhance and improve efficacy of cancer prevention and treatment. [Read more...](#)