

Cancer Association of South Africa (CANSA)



Fact Sheet on Bowen's Disease

Introduction

Skin cancer develops primarily on areas of sun-exposed skin. These include the scalp, face, lips, ears, neck, chest, arms and hands, and on the legs in women. It can also appear on areas that rarely see the light of day — the palms, beneath the fingernails or toenails, and the genital area, especially in individuals with darker skin tones.

[Picture Credit: John T Bowen]



Skin cancer affects people of all skin tones, including those with darker complexions. When melanoma occurs in people with dark skin tones, it is more likely to occur in areas not normally exposed to the sun.

Bowen's Disease

Bowen's disease is a very early form of squamous cell skin cancer. It is also called squamous cell carcinoma *in situ*. This condition was named after Prof John Templeton Bowen (1857-1940).

Bowen's disease is often referred to as 'pre-invasive'. This means that there are cancer cells present but they are only in the outermost layer of skin, the epidermis. Sometimes it can spread along the skin surface.

[Picture Credit: Bowen's Disease]



If left untreated, there is a chance that Bowen's disease can spread into the deeper layers of the skin. This means it has become an invasive cancer and can then spread into the lymphatic system. It takes a long time for Bowen's disease to develop into an invasive cancer. The risk, however, of developing into a fully blown skin cancer remains until Bowen's disease is treated.

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Incidence of Squamous Cell Carcinoma (SCC) in South Africa

According to the National Cancer Registry (2013) the following number of squamous cell carcinoma (SCC) cases was histologically diagnosed in South Africa during 2013:

Group - Males 2013	Actual No of Cases	Estimated Lifetime Risk	Percentage of All Cancers
All males	3 929	1:39	10,93%
Asian males	21	1:254	2,47%
Black males	410	1:268	3,81%
Coloured males	371	1:41	8,89%
White males	3 132	1:11	15,50%

Group - Females 2013	Actual No of Cases	Estimated Lifetime Risk	Percentage of All Cancers
All females	2 485	1:108	6,79%
Asian females	21	1:1 478	2,07%
Black females	342	1:575	2,19%
Coloured females	233	1:100	5,73%
White females	1 889	1:27	11,90%

The frequency of histologically diagnosed cases of squamous cell carcinoma (SCC) in South Africa for 2013 was as follows (National Cancer Registry, 2013):

Group - Males 2013	0 – 19 Years	20 – 29 Years	30 – 39 Years	40 – 49 Years	50 – 59 Years	60 – 69 Years	70 – 79 Years	80+ Years
All males	4	18	71	271	611	1 028	1 170	713
Asian males	0	0	0	2	2	6	6	4
Black males	2	9	34	71	93	69	77	35
Coloured males	0	0	6	25	60	102	98	62
White males	1	5	42	124	413	779	836	483

Group - Females 2013	0 – 19 Years	20 – 29 Years	30 – 39 Years	40 – 49 Years	50 – 59 Years	60 – 69 Years	70 – 79 Years	80+ Years
All females	2	26	80	138	309	538	701	662
Asian females	0	0	3	2	6	3	5	2
Black females	2	22	54	41	55	39	73	43
Coloured females	0	0	3	24	33	52	53	61
White females	0	3	19	67	208	433	563	541

N.B. In the event that the totals in any of the above tables do not tally, this may be the result of uncertainties as to the age, race or sex of the individual. The totals for 'all males' and 'all females', however, always reflect the correct totals.

Signs and Symptoms of Bowen's Disease

Bowen's disease can occur anywhere on the body but it is usually found on the lower legs. To begin with, it often looks like a red, scaly patch, or sometimes like raised spots or warts. The affected skin may become itchy, sore and may bleed. As Bowen's disease can look like other skin conditions such as eczema or psoriasis, it is important to get any skin problems checked by a doctor (MacMillan Cancer Support).

[Picture Credit: Bowen's Disease 2]



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Diagnosis of Bowen's Disease

Diagnosis of Bowen's Disease is done by means of a shave or punch biopsy for histological diagnosis. Where possible, a hair follicle should be included in the biopsy material.

The following conditions should be considered as possibilities in differential diagnosis:

- Actinic Keratosis
- Basal Cell Carcinoma
- Lichen Simplex Chronicus
- Paget Disease (mammary)
- Psoriasis (plaque)
- Squamous Cell Carcinoma
- Tinea Corporis

Risk Factors of Bowen's Disease

Risk factors for Bowen's Disease include:

Sun damage – UV exposure in sunlight (especially with fair skin) is a strong risk factor

Other irradiation damage - radiotherapy, photochemotherapy

Carcinogens - particularly arsenic. Exposure to inorganic arsenic is less common than it used to be in the past.

Viral infection - There is a strong association with human papillomavirus (HPV), HPV-16 particularly in genital and perianal lesions. Some other HPV types have also been implicated.

Immunosuppression - following organ transplants, or Aids. Malignant and premalignant skin tumours are more common in patients who have received organ transplants.

Chronic skin injury or dermatoses - it may arise (rarely) in pre-existing skin lesions such as seborrhoeic keratoses

Staging of Skin Cancer

Doctors use a staging system that is common to all cancers. It is called the TNM system:

- The T indicates the size and depth of the tumour
- The N shows whether the cancer has spread to the lymph nodes
- The M shows whether the cancer has spread to another part of the body (metastasis)

Treatment of Bowen's Disease

There are a number of treatment options and one's dermatologist should take into consideration where the patch is on one's body, as well as its size, thickness and the number of patches one has before deciding on the most appropriate treatment.

He/she will also consider how well the skin is likely to heal afterwards – for example, skin on the lower legs tends to be tight, fragile and slower to heal.

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Treatment options may include:

- Cryotherapy – Liquid nitrogen is sprayed onto the affected skin to freeze it. The procedure may be painful and the skin may remain a bit uncomfortable for a few days.
- Application of skin creams – This is applied to the affected skin regularly as prescribed.
- Curettage and cautery – The affected area of skin is scraped away under local anaesthetic.
- Photodynamic therapy – A light-sensitive cream is applied to the affected skin, and a laser is directed onto the skin four to six hours later, to destroy the abnormal cells.
- Surgery – The abnormal skin is cut out and stitches may be needed afterwards.

About Clinical Trials

Clinical trials are research studies that involve people. They are conducted under controlled conditions. Only about 10% of all drugs started in human clinical trials become an approved drug.

Clinical trials include:

- Trials to test effectiveness of new treatments
- Trials to test new ways of using current treatments
- Tests new interventions that may lower the risk of developing certain types of cancers
- Tests to find new ways of screening for cancer

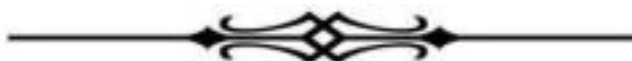
The **South African National Clinical Trials Register** provides the public with updated information on clinical trials on human participants being conducted in South Africa. The Register provides information on the purpose of the clinical trial; who can participate, where the trial is located, and contact details.

For additional information, please visit: www.sanctr.gov.za/

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