



EUROPEAN ACADEMY OF  
DERMATOLOGY AND VENEREOLOGY

# Information Leaflet for Patients

## **BASAL CELL CARCINOMA**

### **The aim of this leaflet**

*This leaflet is designed to help you understand more about basal cell carcinoma of the skin, a type of non-melanoma skin cancer.*

*It tells you what this condition is, what causes it, what it looks like, what can be done for treatment and prevention, and practical advice for managing this condition.*

# BASAL CELL CARCINOMA

## What is basal cell carcinoma?

Basal cell carcinoma (BCC) is a skin cancer developed from the skin's most superficial layer (the *epidermis*) and the hair follicle. It is the most common skin cancer in adult patients. It usually never metastasizes, and it grows slowly on the skin.

## Who is affected by basal cell carcinoma?

Adult patients over 50 years old with fair skin and who live in sunny areas are most at risk. Males are more often affected than females. Its incidence is rising regularly all over the world due to aging of the population. However, some younger patients can also be affected.

## What causes basal cell carcinoma?

The main risk factor for the development of BCC is sun exposure. Initially attributed to sun exposure in childhood, this has more recently been linked to the additional risk of occupational sun exposure. This is the reason why these lesions are mainly located on sun-exposed areas (e.g. the face, and the scalp in bald men).

Another important but rare risk factor is an underlying genetic disease called "basal cell naevus syndrome" (also naevoid basal cell carcinoma syndrome or Gorlin syndrome) due to specific mutations in the *sonic hedgehog pathway* which associates BCCs occurring at an early age (i.e. around 20 years of age) and developmental defects (such as mandibular cysts and *gigantism*, or growth to an abnormally large size). These types of patients must be followed regularly.

## What does basal cell carcinoma look like?

Typically, a BCC develops as a nodule which progressively, slowly enlarges (**Figure 1**). It can sometimes be a rather flat lesion (**Figure 2**). Regardless, the lesion does not go away, and needs to be shown to a dermatologist.

## How is basal cell carcinoma diagnosed?

The diagnosis is made by the dermatologist with the help of a magnifying tool (the dermoscope). The diagnosis is confirmed by a skin biopsy, which involves removal of a small piece of the tumour in order to be analyzed under the microscope. Other imaging techniques exist, but are not routinely used.

## How can it be treated?

The standard treatment for BCC is surgery. The majority (>90%) of the lesions will never return after an optimal surgical treatment. However, specifically for superficial lesions, some non-surgical techniques can be used. This includes topical imiquimod, liquid nitrogen, or photodynamic therapy, which allow for a good control of the disease (around 80% of the cases will not return), and offer the advantage of almost no scarring.

For very advanced and extremely rare cases where surgery is not possible due to the extent of the tumour, new oral drugs are now available to block the activation of the *sonic hedgehog pathway* (characteristic of such tumours).

### How can basal cell carcinoma be prevented?

The best way to prevent BCC is to avoid sun exposure (e.g. protective clothing, sunscreen, avoidance of tanning beds, and no exposure between 11 a.m. and 6 p.m.). Additionally, regular follow-up of patients with a previous BCC is recommended, as the risk of developing a new one is higher in patients with a history of BCC.



**Fig. 1** Nodular basal cell carcinoma: 6 mm-wide ulcerated nodule on the tip of the nose of a 70 year-old man



**Fig. 2** Superficial basal cell carcinoma: Erythematous flat lesion with defined borders on the trunk of a 45 year-old woman

### What is practical advice regarding skin-care, and how can I notice any warning signs?

1. Show your dermatologist any nodule that has recently appeared and persists for several weeks.
2. When you have been diagnosed with a BCC, regular annual or bi-annual follow-up should be done.
3. Surgery is the best choice in most cases. Do not assume that other treatments (chemical treatments or procedures) can be done for all tumours. They should be restricted to only superficial lesions.
4. Do not let a BCC grow without having it checked, thinking that it will never metastasize. It is still a skin cancer and can slowly but surely destroy skin tissue, and become much more difficult to treat.
5. Again, be careful with sun exposure. ■