

WHAT IS MERKEL CELL CARCINOMA?

Merkel cell carcinoma is an aggressive form of skin cancer that usually appears as a flesh-coloured or bluish- or purplish-red nodule, often on the skin of the face, head, neck, or less often on the legs or arms, though it may occur anywhere (Ramahi, et al., 2013).

Long-term sun exposure and impaired immune system function caused by older age, disease, or immunosuppressive drugs increase the risk of Merkel cell carcinoma (Ramahi, et al., 2013).

Merkel cell carcinomas may be curable when detected and treated at an early stage with either surgery or radiotherapy, but since they are usually aggressive and advance quickly with high chances of local and distant recurrence, early detection and removal are very important.

WHAT CAUSE MERKEL CELL CARCINOMA?

Merkel cell polyomavirus is a human virus that is present in most Merkel cell carcinoma tumours. However, some Merkel cell carcinoma tumours (20%) do not have this virus (Ramahi, et al., 2013).

An impaired immune system and Merkel cell carcinoma are strongly linked. People whose immune systems are chronically suppressed are more likely to develop Merkel cell carcinoma (Ramahi, et al., 2013).

Sun exposure is also strongly linked to Merkel cell carcinoma. Sun exposure is a double threat: it not only damages the skin, but also suppresses the immune system, reducing its ability to fight off skin cancers and other diseases (Ramahi, et al., 2013).

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MERKEL CELL CARCINOMA

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RISK FACTORS AND WARNING SIGNS



Key risk factors for Merkel cell carcinoma include:

- Exposure to the Merkel cell polyomavirus
- Ultraviolet exposure from the sun or tanning beds
- Impaired immune function, for example people taking immunosuppressant treatments
- Light skin colour
- Aged over 50 (Ramahi, et al., 2013)

The tumours usually first appear as firm, painless lesions or nodules, often on the head, neck, and less often legs and arms, but also anywhere may be affected. They are typically red, pink, blue, violet, or skin-coloured and vary in size, usually being less than 2 cm in diameter when they are detected (Ramahi, et al., 2013).

MERKEL CELL CARCINOMA TREATMENTS

Treatment of Merkel cell carcinoma is largely based on the stage of the disease, as well as the overall health and well-being of the patient.

Complete surgical excision of the primary (original) tumour is recommended when Merkel cell carcinoma is diagnosed at a local stage (stages I to II) (Schadendorf, et al., 2017).

After surgical excision, if the risk of recurrence or spread to the local lymph nodes is high, the doctor will usually recommend that the Merkel cell carcinoma is treated with a course of radiation after the removal of local lymph nodes. Some doctors recommend a course of radiation for all people with Merkel cell carcinoma (Schadendorf, et al., 2017).

Doctors may in addition recommend chemotherapy people with Merkel cell carcinoma, particularly if their cancer has spread to distant sites, such as lungs or liver. A variety of chemotherapies have been used for advanced Merkel cell carcinoma, with varied (but often limited) success, and unfortunately often with significant side effects (Schadendorf, et al., 2017).



The latest clinical research in this field has focused on boosting the immune system's ability to attack Merkel cancer cells. An immunotherapeutic treatment for Merkel cell carcinoma has recently been approved by the US Food and Drug Administration and authorized by the European Medicines Agency in Europe. You may wish to ask your doctor about immuno-therapy clinical trials recruiting patients with Merkel cell carcinoma to test new treatments (Schadendorf, et al., 2017).

STAGING OF MERKEL CELL CARCINOMA

The choice of treatments depends directly on what stage the cancer has reached. The American Joint Committee on Cancer system (Edge, et al., 2010) includes five stages:

- **Stage 0:** In situ tumours (superficial tumours that have not penetrated beyond the epidermis, the skin's outermost layer).
- **Stage I and stage II:** Tumours not known to have advanced to the local lymph nodes, with stage I including relatively smaller, lower-risk tumours and stage II including larger and/or higher-risk tumours.
- **Stage III:** Tumours known to have reached the local lymph nodes but not beyond.
- **Stage IV:** Distant metastases, tumours whose cancer cells have spread to distant organs beyond the local lymph nodes.

PREVENTION GUIDELINES

To protect yourself, make these habits part of your daily health care routine:

- Seek the shade, especially between 10:00 and spring, summer and autumn.
- Do not sunburn.
- Avoid attempting to tan and never use sunbeds.
- Cover up with clothing, including a broad-brimmed hat and ultraviolet-blocking sunglasses.
- Use a high SPF broad spectrum (UVA/UVB) sunscreen every day on all exposed skin in spring, summer or autumn, and reapply it every couple of hours while outside.
- Keep new-born children out of the sun for their long-term benefit. Sunscreens should be used on babies over the age of six months. Younger babies should be kept out of the sun altogether.
- Examine your skin all over every month.
- See your physician every year for a professional skin exam.

For those people who have already had Merkel cell carcinoma, follow-up after treatment is recommended every three or four months for the first three years, then every six months for up to five years.