

# **Mohs micrographic surgery**

Treatment for skin cancer

Mohs micrographic surgery is a procedure in which skin cancer is removed leaving as much healthy tissue as possible. This surgical technique is usually used for skin cancers of the face and the neck. The treatment is an outpatient procedure.

## What is Mohs micrographic surgery?

This technique to treat skin cancer was developed in the early 1940s by Frederick Mohs, Professor of Surgery at the University of Wisconsin (United States). The technique has been further refined over the years. This technique makes it possible to remove the skin cancer completely with minimal damage to the surrounding healthy tissue. After the tissue has been removed, it is examined under a microscope to see if any cancer is left at the edge of the specimen. If cancer cells are still present, more tissue is removed, but only where needed.

## **Preparations**

#### No need to fast

The treatment is performed under local anesthesia. You do not need to fast before the procedure. You can eat and drink as usual before surgery.

#### Do not shave

Do not shave the around the surgical site before the procedure.

#### List of your medication

Bring an updated list of all the medication that you use. In most cases you can continue to use blood thinners, unless the dermatologist has advised otherwise.

If you are taking corticosteroids (e.g. prednisone, hydrocortisone, dexamethasone) and/or blood thinners and your attending physician is not aware of this, please inform them accordingly as soon as possible. If your physician is already aware of this, you do not need to do anything.

#### Smoking

Smoking has a negative impact on the healing of surgical wounds. Nicotine narrows the blood vessels, which can more easily cause healing problems, such as tissue deterioration and infections. We advise you to stop smoking, even if only temporarily. If you are considering stopping smoking, even if only temporarily, you must stop smoking at least seven days before surgery and not start again until the wound has healed.

#### **Getting home**

We recommend that you do not come alone as you will not be allowed to drive home after the surgery. If your eyes or the area around your eyes are bandaged, we advise you not to drive a vehicle in the first week after surgery.

#### Clothing

Wear comfortable clothing on the day of the treatment. Do not wear jewelry or makeup.

#### Vacation

If you have a vacation planned in the weeks after the procedure, please discuss this with your physician.

# About the treatment

Erasmus MC is a center of expertise for skin cancer and Mohs micrographic surgery. A team of experienced dermatologists, trainee dermatologists and assistants perform the procedure. Some preparations will need to take place before the procedure is performed.

#### Disinfection and local anesthesia

The physician will draw a line around the tumor with a pen. The surgical site is then cleaned with disinfectant and covered with sterile cloths. You will then get a local anesthetic to numb the surgical site. The injection may cause a mild burning sensation. Sometimes an anesthetic is given by mouth. Anesthetic eye drops will be administered before eye surgery.

#### Removal of cancerous tissue

Small sutures will be placed to mark the edges after the anesthesia. The cancerous tissue is then removed. You will be able to feel that the physician is doing something, but it should be painless. A dressing will be placed over the wound after the tissue has been removed. The removal of the skin tumor takes about 30 minutes on average.

#### After excision

Following excision, the tissue is frozen and sliced thinly. These slices are examined under a microscope to see if any cancer cells are left at the edges of the tissue. All the edges are marked with a color and a tissue map is made. The map shows exactly where tumor remnants have been left behind. You may have to wait for up to three hours to get the first results.

#### Waiting for the results

You will wait for the results of the microscopic examination in the waiting room. You may be accompanied by one person who can stay with you all day. You are requested NOT to leave the department. Coffee and tea are available in the waiting room. As a patient, you will be offered a lunch by the hospital. The person accompanying you can either bring their own lunch or go to the restaurant or supermarket in the central hall of the hospital.

You will be informed as soon as the results of the microscopic examination are available.

#### Next round(s)

If cancer cells are still seen, more tissue will be removed and will again be examined. This procedure will be repeated until the tumor has been completely removed. On average this takes two to three rounds, but sometimes more.

#### Closing the wound

The wound will either be left to heal without stitches or stitches may be used to close the wound. This will depend on the location and size of the wound. If the edges of the wound cannot be sutured together there are alternative ways to close the wound: by pulling skin in or by making a skin graft, for instance. You will usually be given additional local anesthesia as the wound is closed. A pressure dressing will be placed on your wound after stitching. Closing the wound takes between 45 and 90 minutes.

# **After surgery**

## Aftercare and check-ups

Because you have been diagnosed with skin cancer, your skin may need to be monitored for a number of years. How long and how often this will be necessary depends on the type of skin cancer that you have. Your attending physician will discuss this with you. The first check-up will be after three months. Your scar and the rest of your skin will be examined during the check-up.

## **Going home**

You can go home after the surgery.

#### Pain medication

In most cases the pain will not be too bad. If you are in pain you can take 1000 mg of paracetamol (two 500 mg tablets) up to four times a day. We advise you not to take any other painkillers (such as aspirin) as these painkillers often have a blood thinning effect and could therefore increase the risk of postoperative bleeding. If the surgery was performed near your eye, you will often be prescribed an eye ointment for one to two weeks. This ointment may temporarily cause blurred vision.

## After closure of the wound

The area around the surgical site will turn red or blue a few days after the wound has been closed. Swelling may occur, especially around the eyes. This is like bruising and no reason for concern. After surgery you will need to have your wound checked once or twice during an appointment with the nurse. They will also remove your stitches. Keep the wound dry until the bandage and the stitches have been removed. We advise you to rest as much as possible and not to bend down or lift heavy objects. Not smoking will help the wound to heal.

## **Side effects and complications**

## Home after surgery

The risk of postoperative bleeding is greatest in the first 24 hours after surgery. If bleeding does occur, press a clean tea towel firmly against the wound for 20 minutes without removing it in between. If this does not stop the bleeding, please contact the Dermatology outpatient clinic. You will find their telephone number under Contact details.

## **Risks of surgery**

No operation is without risks. Risks can include postoperative bleeding, wound infections, and severing a nerve. Fortunately, these risks are very rare and the surgeon will do everything possible to avoid them.

# The outcome

Every surgical procedure will leave a scar. The visibility of the scar will depend on where the procedure was carried out, the size of the wound, and your own healing ability. A scar can improve up to 18 months after surgery. If you are unhappy with the final outcome, we can help you find an appropriate solution.

# Do you have any questions?

If you have any questions, please contact the Dermatology outpatient clinic, or ask your questions during your appointment.

# **Contact details**

• Dermatology outpatient clinic: (010) 704 01 10 (from 8 am to 4:30 pm).

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• For emergencies outside office hours call the Emergency department at (010) 704 01 45. Ask for the dermatologist on duty.

## PATIO

The patient information center welcomes patients and their families to get in touch with any questions they may have about cancer. The information center is located on Zimmermanweg and is open from Monday to Friday from 8 am - 4:30 pm. Tel: (010) 704 12 02. Email: <u>patio@erasmusmc.nl</u>. See: <u>www.erasmusmcpatio.nl</u> for all the options and activities.

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