

Mohs Micrographic Surgery in the Treatment of Skin Cancer



About Mohs Micrographic Surgery

WHAT IS MOHS MICROGRAPHIC SURGERY?

Mohs micrographic surgery is an advanced, highly effective technique for the removal of skin cancer.

The procedure was developed in the early 1940s by Dr Frederic Mohs at the University of Wisconsin, and is now practiced around the world.

Mohs surgery differs from other skin cancer treatments because it permits the immediate and complete microscopic examination of the removed cancerous tissue, so that all "roots" and extensions of the cancer can be eliminated.

Due to the methodical manner in which tissue is removed and examined, Mohs surgery is the skin cancer treatment with the highest reported cure rate.

THE MOHS SURGERY TEAM AT THE DERMATOLOGY INSTITUTE OF VICTORIA

The Mohs surgery team at the Dermatology Institute of Victoria (DIV) is led by Victoria's first trained micrographic surgeon, Associate Professor Greg Goodman MBBS (Hons), GradDipCLINEPI, FACD, MD DERMATOLOGIST.

Assoc Prof Greg Goodman is the Director of the Mohs micrographic surgery unit at the Skin & Cancer Foundation Inc, and has offered Mohs micrographic surgery here since 1992.

Assoc Prof Greg Goodman trained for two years to become an accredited Mohs surgeon, and in that time acquired a micrographic surgery fellowship.

The Mohs surgery team at DIV consists of a number of experts including Mohs surgeons, surgical assistants, a plastic surgeon when required, nurses and pathology technicians.

SPECIAL INDICATIONS FOR MOHS MICROGRAPHIC SURGERY

It is important to note that Mohs micrographic surgery is not appropriate for the treatment of all skin cancers. Mohs micrographic surgery typically is applied to those skin cancers that have recurred following previous treatment, or for cancers that are at high risk of recurrence.

Mohs micrographic surgery is also suitable for cancers located in areas such as the nose, ears, eyelids, lips, and hairline, and occasionally elsewhere where maximal preservation of healthy tissue is critical for cosmetic or functional purposes.

ADVANTAGES OF THE MOHS SURGICAL PROCEDURE

Because Mohs surgery is micrographically controlled, it provides precise removal of cancerous tissue while healthy tissue is spared, ensuring a high cure rate and the best possible cosmetic result.

Some skin cancers can be deceptively large and far more extensive under the skin than they appear to be from the surface. Skin cancers that have recurred after previous treatment may also be more extensive, reaching further out than scar tissue from previous attempts at removal.

In these cases, prior to Mohs surgery it was impossible to precisely predict how much skin has to be treated in order to completely remove the skin cancer. The final surgical scar could be larger than the initial skin cancer, as occasionally the removal of the deep "roots" of a skin cancer may result in a larger scar. As a result, Mohs is advantageous in areas such as the eyelids, nose and lips, where skin is limited.

Using the Mohs technique, the cancer removal rate success is very high at 94-99%, even when other skin cancer treatments have failed.

What To Expect From Your Procedure

MOHS MICROGRAPHIC SURGERY PROCEDURE

Mohs surgery is performed under a local anaesthetic. Although the patient is awake during the entire procedure, discomfort is usually minimal and no greater than it would be for more routine skin cancer surgeries.

The area to be treated is cleansed, marked and injected with a local anesthetic. The Mohs surgeon removes the visible cancer, along with a thin layer of additional tissue (Stage I). This procedure takes only a few minutes, and the patient waits with a dressing in place while tissue is being processed and examined.

The removed tissue specimen is carefully divided into sections, and is stained and marked on a detailed diagram called a Mohs map. The tissue is frozen by a technician and thin slices are examined microscopically by the Mohs surgeon, who is then able to accurately map any residual cancer.

If residual cancer is found, the Mohs surgeon utilises the Mohs map to direct the removal of additional tissue (Stage II). Additional tissue is only removed where cancer is present. When microscopic examination reveals that there is no remaining tumor, the open wound is ready for repair.

OPTIONS FOR POST-SURGICAL RECONSTRUCTION

After the skin cancer has been removed, your Mohs surgeon will consider various repair options for the best cosmetic and functional result. These may include:

- Allowing the wound to heal without any additional surgical repair ("healing by secondary intention")
- 2. Wound repair performed by the Mohs surgeon
- 3. Repair by another specialist such as a plastic surgeon, who may have particular expertise regarding repair of certain defects

For small post-surgical sites, direct closure by suturing the sides of the wound together may be possible.

In certain areas of the body, there is little tissue that can be stretched for coverage of a wound, and either a skin graft or skin flap must be used. In closing wounds with a skin flap, the skin adjacent to the surgical defect is partially cut free, and then rotated or moved forward to cover the surgical area. Stitches are then placed to hold the flap in its new position. This provides immediate coverage for the wound.

Other areas may require a skin graft to provide coverage. Skin from areas including the side of the neck, behind or in front of the ear or over the collarbone may be cut free, placed over the wound, and then sewn into place. The original site of the graft is then closed with stitches or allowed to heal on its own.

WOUND HEALING, SCARRING, AND SCAR REVISION

As with all forms of surgery, a scar will remain after the skin cancer is removed and the surgical area has completely healed. Mohs micrographic surgery will leave one of the smallest possible wounds and resultant scars. Often wounds allowed to heal on their own result in scars that are barely noticeable.

Through the body's own natural healing properties, scars have the ability to remodel and improve in appearance over a six to twelve month period. There are also many other techniques available to the patient for scar treatment following skin cancer surgery.

POTENTIAL COMPLICATIONS ASSOCIATED WITH MOHS MICROGRAPHIC SURGERY

As with all surgeries, complications may arise including:

- Bleeding
- Bruising
- Swelling
- Incomplete removal of cancer
- Infection
- Scarring
- Numbness
- Pain afterwards

Associated risks and complications will be discussed with the patient. Please speak to your doctor about any concerns or questions.

FEES FOR MOHS MICROGRAPHIC SURGERY

Item numbers and relevant fees charged will vary depending on each individual procedure. Item numbers used for the Mohs surgery and the reconstruction of the resultant surgical defect can be claimed on Medicare and in most cases, there will be a gap between the rebate and the fees charged.

PATIENT PREPARATION FOR MOHS MICROGRAPHIC SURGERY

Please inform our staff if you take any medications including over the counter vitamins and supplements especially anticoagulant medication such as Aspirin, Clopidogrel (Plavix) or Warfarin or a Warfarin alternative such as Dabigatran (Pradaxa). We require patients taking Warfarin to have an INR blood test two to three days prior to surgery.

Please contact our clinic on 03 9826 4966 with the results prior to surgery. Unless told otherwise do not cease any of your medications including anticoagulants.

You should arrive at the clinic well rested and having had a normal breakfast. You should take your regular medications unless you have been advised otherwise.

Most Mohs micrographic surgery cases can be completed in three or fewer stages, which requires less than four hours of treatment. We ask that patients have no other commitments on the day of surgery, as it is not possible to predict the length of your stay in advance.

As you may be at the clinic for the entirety of the day, we suggest you dress comfortably and bring a book or iPad, as well as lunch or snacks.

You will require someone to drive you home after surgery.

There is on and off street parking available.

WHAT TO EXPECT AFTER MOHS MICROGRAPHIC SURGERY

A dressing will be applied after surgery to reduce bleeding. You will be given verbal and written wound care instructions and information on what to do in the event of any complications. Led by Associate Professor Greg Goodman, our mission is to provide exceptional experience and results from clinical experts in a consistently elegant and professional environment.

As well as skin cancer and Mohs micrographic surgery, we offer over 50 state of the art cosmetic, surgical and medical dermatology treatments, which can be combined into cost effective personalised packages. We address a variety of skin concerns including wrinkles, skin tightening, acne, facial enhancement, pigmentation, broken blood vessels, scarring, sun damage and body fat, and many of our treatments have little to no recovery time.

For more information on Mohs micrographic surgery visit: www.div.net.au/mohs

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OUR CLINIC

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