



EUROPEAN  
ACADEMY OF  
DERMATOLOGY &  
VENEREOLOGY

Information Leaflet  
for Patients

# Permanent Make-Up and Medical Tattoos



## The aim of this leaflet

This leaflet is designed to inform anyone who is interested in getting permanent make-up (PMU) or a medical tattoo about the risks and complications.

# Permanent Make-Up and Medical Tattoos

## What is permanent make-up?

**PMU** can be considered as **cosmetic tattooing** simulating conventional make-up with the advantage that it is permanent. The most popular examples are eyeliner, eyebrows and lip liner. PMU is often applied by a trained beautician rather than by a tattooist. The procedure is performed with an electrical tattoo pen. For eyebrow tattooing, dermablades, resembling a sharp miniature metal comb, can be used.

## What is a medical tattoo?

**Medical tattooing** is used to camouflage medical conditions. Medical tattoos after cancer surgery are often done in medical settings by a health care practitioner, by a beautician or by a tattooist with specific training. The tattoo intends to restore or mimic the natural appearance of the skin by using skin tones. For covering alopecia dermablades can be used to simulate hairs.

## What are the risks of PMU and medical tattooing?

PMU (cosmetic tattooing) and medical tattooing can have the same complications as can occur with decorative tattooing.

The procedure can be uncomfortable in sensitive areas such as the lips or eyelids. When done by an experienced practitioner the procedure causes little or no bleeding. Swelling and crusting can be present for a few days.

The most common complications are **dissatisfaction** and **regret** resulting from misapplication of the pigment and pigment migration. **Pigment fanning** occurs when the tattoo ink spreads in the superficial layers of the skin. It can happen after eyelid PMU in both inner and outer corner of the eyelid. It is recommended not to rub the eyes after the procedure and to avoid the procedure in episodes of hay fever, allergic conjunctivitis or common cold.

**Pigment blow out** occurs when the ink is placed too deep in the skin and migrates into the deeper layer. It looks like a dirty shade around the PMU/tattoo.

**Dissatisfaction with color and shape.** PMU colors are exposed to sunlight and often fade with time. So, this will need touching up. The shape of PMU is often subject to trends and fashion. Style of lips and eyebrows change. Avoid overdone PMU. Avoid covering a bad PMU with flesh tones. It gives an unnatural result because it lacks the natural translucence of normal skin.

**Allergy** to pigments can occur but it is rare. (see leaflet allergy)

When done in hygienic conditions, **infection** is extremely rare. (see leaflet infection)

**Cold sore also known as fever blister (herpes simplex)** can flare up after lip liner PMU. It is recommended that people with a history of recurrent cold sore start preventive treatment with antiviral medication before the procedure and maintain this until complete healing (5-7 days).

**Granulomas and sarcoidosis.** Granulomatous reactions manifest like thickening of the skin in the tattooed area, sometimes with a bumpy surface. In PMU this is the most common complication after esthetic complications. It occurs mostly in eyebrow tattoos; it can be due to pigment overload but also sarcoidosis must be considered. (leaflet on sarcoidosis in preparation)

### Can PMU be removed and what are the risks?

To remove PMU, treatment with pigment laser gives the best result although there is a risk that the pigments are not completely gone even after several treatments. When different pigments have been applied it is possible that not all respond well to the laser treatment. It occurs that residual yellow or orange tones remain visible. Another complication of laser treatment is darkening of the pigments which occurs when iron or titanium dioxide containing ink (red, brown and flesh colors) has been used. It is recommended to treat a test spot and evaluate the result.

Non-specific removal techniques with chemicals, caustic agents such as lactic acid in high concentration or surgical procedures (dermabrasion) have a high risk of scarring.

### Can I get PMU after Botox treatment?

Be aware that Botox (and analogues) will change the muscular activity and can influence the shape of PMU. You better get PMU before doing Botox or respect the time-effect of Botox which usually will last 4-6 months.

### Can I camouflage a vascular birthmark (hemangioma)?

Vascular birthmarks can be camouflaged with a flesh color tattoo. The experience of the practitioner is crucial because there is a slightly increased risk of bleeding. As flesh colors, which often contain iron pigments, are used, there is a risk of darkening when the hemangioma should be treated with vascular laser in a later phase. It is recommended to do the laser treatment first before applying PMU on residual/persisting vascular lesions. Even with successful laser treatment the

vascular lesions tend to flare up. With time vascular malformations also turn darker (from red to purple) and will need touch-up.

### How can I camouflage vitiligo?

Vitiligo can be camouflaged with PMU. Be aware that vitiligo is often unstable and can progress which means that it can need touch-up. Consult your dermatologist to decide on the best moment to start the procedure. Conventional make-up offers a temporary solution.

After sun exposure your normal skin will become darker (= tanning). Be aware that camouflage colors will not always match with the seasonal sun tanning of your normal skin. Sun protection, which is strongly recommended for vitiligo, can minimize these color variations. (See leaflet Tattoos and vitiligo).

### How can I camouflage stretch marks?

Here the same remarks apply as for vitiligo. Colors will not always match with sun tanning of your normal skin. Sun protection is strongly recommended to minimize these color variations. Touch up can be required when colors fade with time.

### Can I get a tattoo on a surgical scar?

I Surgical scars can be camouflaged with flesh colors and with artistic tattoos. The needling effect of the procedure can even soften the scar tissue; the tattoo device can also be used to introduce medication into the scar tissue.

A typical example is the nipple-areola complex (NAC) reconstruction after breast cancer surgery.

Important: do not tattoo a scar of melanoma resection because it will

impede clinical follow up for local recurrences. (see leaflet Tattoos and moles).

### Can I get PMU when I have psoriasis?

It is recommended to select a disease-free area or to treat lesional skin first and delay the procedure until healing is achieved. Damaging the skin in a patient with psoriasis can occasionally evoke new psoriatic lesions. This is called Koebner phenomenon. (see leaflet Tattoos and psoriasis).

### Can I get PMU when I'm under immunosuppressive/oncologic therapy?

Because the procedure disrupts the protective skin barrier there is a risk of infection. You should ask your doctor for advice and decide on the optimal timing to reduce complications.

#### General advice

- Get cosmetic and medical tattooing done by an experienced practitioner in a hygienic setting with sterile materials.
- Inform the practitioner of your health, your medication and of any allergies.
- If you have known contact allergies (e.g. to disinfectants or cosmetics), you should check that only appropriate products are applied on the skin.
- Follow the after-care advice, as given. Clean your hands before touching a fresh PMU.
- Avoid getting any type of tattooing on active skin disease. Postpone the procedure and treat the skin condition first. When in doubt, consult your doctor.

While every effort has been made to ensure that the information given in this leaflet is accurate, not every treatment will be suitable or effective for every person. Your own clinician will be able to advise in greater detail.