

Permablate®

PERMABLATE® Electrolysis Unit for the Permanent Removal of Hairs

- Portable
- Precise
- Minimally Invasive
- Cost Effective

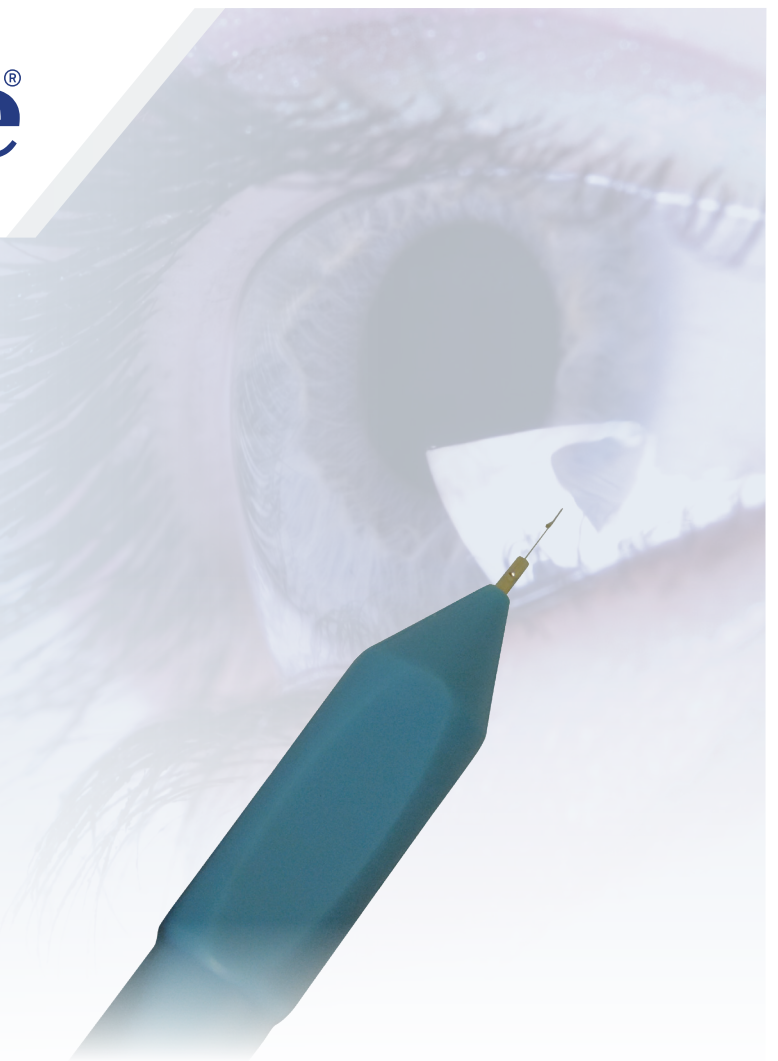
With the disposable, sterile PERMABLATE® unit the medical practitioner can **permanently treat** trichiasis and distichiasis. The PERMABLATE® unit **ablates** the germinal follicles of ingrowing eyelashes and eyelid margin metaplastic hairs.



The PERMABLATE® unit has a sterile, single-use, thin gold-plated needle which transmits the therapeutic current generated by a re-usable battery pack. The low-voltage battery offers both low (0.2mAmp) and high (0.5 mAmp) settings for customising treatment.

The PERMABLATE® unit performs galvanic hair removal (electrolysis) and is intended for use by qualified medical practitioners.

While some patients may experience tolerable pain when electrolysis is performed in some bodily locations, before treating eyelids it is essential to first inject local anaesthetic.



How the PERMABLATE® unit works

The unit produces permanent hair removal by electrolysis. An electrical current flows from the active negative charge needle electrode to the positive charge of the patient-held battery pack. The strong polarity around the needle electrode produces hydroxide ions, which necrose tissue.

The PERMABLATE® unit needle is extremely thin (100 microns diameter) and so it necroses hair follicle cells with precision. Inadvertent overtreatment with unnecessary necrosis of cells external to the follicle is avoided. The PERMABLATE® unit needle application must be for sufficient time that **all** of the germinal follicle cells have necrosed, so that the hair can be **removed without force**, unlike epilation/plucking temporary treatment.

Clinical material is available from the supplier on request. Please also note references overleaf.

Visit permablate.com.au for more information

Currently Used Methods and Efficacy

Several treatment methods aim to permanently destroy/ablate hair-producing germinal follicles. These include electrolysis, argon laser, electro-cautery, hyfrecation, cryotherapy, and radiofrequency applications. Successful treatment requires the permanent destruction of any cells which have hair-producing capacity. Any hair which needs to be plucked out - with even minimal force - is still attached to viable cells, and so the treatment application will fail.

Sufficient treatment depth, range and duration are needed to achieve success. Undertreatment will produce tissue damage without success, and overtreatment will succeed but cause unnecessary collateral damage.

The PERMABLATE® unit has been designed to address these issues and provide successful ablation treatment.

Historically, eyelid treatments have failed due to the use of topical eye-drop anaesthesia alone. Without injected local anaesthesia, the patient frequently could not tolerate the severe intra-eyelid pain of the treatment for long enough to achieve a successful permanent outcome.

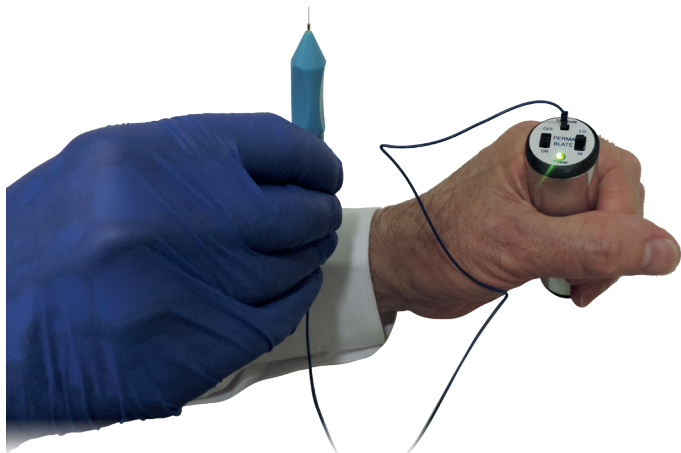
What the PERMABLATE unit offers

The PERMABLATE® unit is a **precise, portable and affordable** device for successfully and permanently ablating the germinal cells in a hair follicle.

The PERMABLATE® unit needle is **single-use, sterile and disposable**, and so offers optimal safety in preventing patient-to-patient transmission of disease. In addition, the needle is **gold-plated, ovoid, and extremely thin** (100 microns diameter), and this makes possible a smoother, easier insertion alongside the hair into its follicle.

The PERMABLATE® unit battery has **adjustable current settings** which provide for customised treatment, reducing the risk of unnecessary collateral damage occurring from over-treatment. The LOW (0.2 mAmp) and HIGH (0.5 mAmp) electrical current strengths provide for the variation in tissue response which has been observed in different patients, as well as for the different sizes of ingrowing eye lashes and eyelid margin metaplastic hairs which are to be ablated.

The PERMABLATE® unit battery is low-voltage, re-usable and re-chargeable.



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How to Use the PERMABLATE® Electrolysis Unit

Guidelines for Treatment

- Instill a drop of topical anaesthetic into the eye
- Inject the eyelid to be treated with local anaesthetic
- Open the disposable PERMABLATE® unit, maintaining sterility of the needle
- Connect the cable to the battery pack
- Ask the patient to hold the battery pack with a firm grip
- Switch the battery on and select the LOW current setting
- With magnified viewing (microscope, surgical loupe or slit-lamp), insert the needle point alongside the hair into its follicle
- Look for the appearance of bubbles at the tissue surface. This indicates that **electrolysis has begun, NOT that complete hair follicle ablation has occurred**
NOTE: After bubbles appear, the needle point must be kept in place long enough for complete destruction of the hair-producing germinal cells. This may take one or more minutes.
- Rotate the needle around the hair shaft to distribute the ablating current
- If few or no bubbles appear, indicating a minimal response, switch to the HIGH current setting on the battery
NOTE: Experience shows that ingrowing hairs in most patients will respond to the LOW setting. This is particularly so for fine metaplastic hairs
- When follicle cell ablation is complete, the hair shaft will float out of the follicle, either on the needle itself or with the wiping action of a disposable cotton-tipped applicator/cotton bud.
NOTE: Regularly check for the follicle ablation endpoint. Overtreatment could result in unnecessary collateral damage, scarring, and eyelid margin distortion.

Charging the Battery

The battery is charged by connecting it to any approved mini-USB charger. The LED indicator will glow RED during charging and become GREEN once the battery is fully charged. The battery pack **MUST BE DISCONNECTED** from the charging source before the PERMABLATE unit is used for treatment.

References

- (1) Management of Trichiasis – What Works and What Doesn't Tucker S M, Techniques in Ophthalmology 1 (3): 168 – 172 September 2003
- (2) A simplified cryotherapy technique for trichiasis and distichiasis Aust J Ophthalmol 1984 May 12 (2) : 163 - 6 Delaney M R, Rogers P A