Unwanted facial and body hair can have significant adverse effects emotionally and socially. Genetic factors, disease conditions (e.g. polycystic ovarian syndrome) and certain drugs contribute to how much hair a person has on various body parts. Social norms and cultural views dictate the impact excessive hair has on an individual. As a result, more than 50% of men and women view themselves to have unwanted and excessive hair.

Hair removal methods that have permanent results can improve the quality of life in hirsute women. As such, across races and cultures and with the recent advances in technology, a whole host of modalities are now readily available to anyone who seek to remove hair. The popularity can be seen in the booming hair removal business. Hair removal products and items are easily available in pharmacies and departmental stores, and aestheticians offer various methods of hair removal widely. A recent review at a local institution found that one of the most popular procedures patients seek is hair removal laser. However, regardless of the method used, outcomes can be variable and distressing at times, even more so when certain complications are more prevalent in Asian skin, such as pigmentary disturbances [Figure 1].

Role of Primary Care Physician

The primary care physician must be familiar with the different methods used in the removal of hair [Table 1], the process that is involved, and subsequently the care of the complications that may arise [Table 2]. This is especially so for those who offer hair removal in their clinics via laser or light systems.

Patient Care – Before Procedure

A thorough history and examination is important regardless of the method intended. One must assess the patient’s risk/benefit profile. Advise to defer the procedure (e.g. waxing) in a patient with vitiligo, lichen planus, molluscum contagiosum, or any condition where koebnerisation can occur. Avoid laser or light procedures if they have systemic conditions such as lupus erythematosus or any other disorder that may increase the risk of adverse events.

Encourage patients to always visit aestheticians that have proper licensing and certification in the techniques that they seek and to monitor for good hygiene practices.

Removal of hair at the surface does not cause much discomfort. However, chemical depilatories may cause contact dermatitis in a person with pre-existing sensitive skin, and one should apply the cream on a small area initially to observe for a reaction.

Care and Advice – Post-procedure

Wear loose clothing for the next few days after the procedure and avoid
Temporary hair removal | Permanent hair reduction | Reduce regrowth, improve appearance | Pharmaceutical options
--- | --- | --- | ---
Removal at surface: Shaving, Sugaring, Chemical epilators | Light based devices | Topical eflornithine HCL, Vaniqa™ | Oestrogens, Cyproterone acetate, Flutamide
Removal of follicle: Tweezing, Threading, Waxing, Mechanical epilators | Laser devices | Bleaching agents | Electrolysis

**Table 1. Current available methods of hair removal**

<table>
<thead>
<tr>
<th>Early (hours to days)</th>
<th>Late (weeks to months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pain, Oedema</td>
<td>• Hyperpigmentation</td>
</tr>
<tr>
<td>• Perifollicular erythema</td>
<td>• Hypopigmentation</td>
</tr>
<tr>
<td>• Burn, blistering, crusting</td>
<td>• Leukotrichia</td>
</tr>
<tr>
<td>• Contact dermatitis</td>
<td>• Reticulate erythema</td>
</tr>
<tr>
<td>• Ingrown hairs</td>
<td>Possible permanent (rare)</td>
</tr>
<tr>
<td>• Folliculitis</td>
<td>Hyperpigmentation</td>
</tr>
<tr>
<td>• Infections (eg. Viral warts, herpes simplex, cellulitis, impetigo)</td>
<td>Hypopigmentation</td>
</tr>
<tr>
<td>• Reaction to topical anaesthetic</td>
<td>Atrophy</td>
</tr>
<tr>
<td>• Koebner phenomenon (eg. Psoriasis, lichen planus, vitiligo)</td>
<td>Scarring</td>
</tr>
<tr>
<td>• Purpura, haematoma, thrombophlebitis, cold urticaria, etc</td>
<td>Leukotrichia</td>
</tr>
</tbody>
</table>

**Table 2. Common adverse effects of hair removal**

picking at the area. Reiterate sun protection and avoidance of hot baths or saunas. If necessary, a gentle keratolytic can be used to prevent pseudofolliculitis (ingrown hairs). Avoid using makeup or products on the recently treated area for 24-48 hours.

An aesthetician with good technique is able to help with alleviating the immediate discomfort after removal of the hair follicles (eg. waxing). Cooling techniques such as ice packs can be employed too.

**Laser and Light Devices**

For practitioners who perform laser and light services for hair removal, it would be prudent to counsel patients in detail and to obtain written consent before procedures. Patients must have realistic expectations and understand that repeated sessions over a prolonged period is required. Pre- and post-treatment photographs may help in the care of the patients.

Prior to hair removal via laser and light sources, patients should be advised to avoid excessive sun exposure or sun tanning and to avoid plucking, waxing, tweezing or threading for at least 6-8 weeks. They should only shave the intended area 1-2 days before the procedure. If patients are prone to herpes simplex infection or folliculitis, prophylactic antiviral or antibacterial agents can be prescribed 1-2 days before the procedure. All patients should have the skin cleaned and protective goggles should be used during the procedure.

Topical anaesthetic under occlusion for an hour can lead to adverse effects such as dermatitis, urticaria and, worse still, anaesthetic toxicity. The last event is a consideration when large areas are to be treated and if local anaesthesia is applied near mucous membranes where absorption is higher. Practitioners must know the safe limits as to how much topical anaesthetic can be used at any one time and the symptoms to look out for. One should still observe these patients as they wait for an hour or so before the procedure.

When using laser and light sources, one must consider the body site, skin type and skin colour so that the ideal treatment parameters for the patient are chosen. The details are beyond the scope of this article, but it is suffice to state that any sign of acute epidermal damage, such as whitening of the skin or blister formation, is when the procedure should be immediately aborted.

Patients are to be counselled about hair cast shedding that can occur over a few weeks and reassured that it is not new hair growth. Home-use laser-based devices of various wavelengths and low fluence light sources are now widely available to consumers to remove hair.

While in the clinic the doctor can advise patients and tailor the treatment specifically to their skin colour and body site, commercial light hair removal devices are used by unskilled consumers. There is then a potential for either a decrease in efficacy or increase in side effects as discussed above. It still remains to be seen how safe or efficacious these devices are and patients are to be counselled accordingly.

**References**