The needles that an electrologist uses are their ‘tools of the trade’ without which, obviously, an electrolysis treatment could not be carried out. But the diminutive needle is not such a simple item as one might perhaps imagine… as discussed by Elaine Stoddart, Training Director of Sterex.

The electrologist’s choice of needle directly affects not only the efficiency and success of the treatment but also the client’s comfort levels – and also has skin care ramifications.

Quality Assurance - Your Reassurance

Firstly, it is of paramount importance that the needle chosen is of high quality and fit for the job. As a good starting point, look for the CE mark which must have the notified body acceptance number printed immediately underneath - all manufacturers of medical devices must be assessed by a notified body and obtain ISO 13485:2003 in order to carry the CE mark, and for their goods to be marketed freely anywhere within the European Community.

As an example, the Sterex epilation needle is classed by the Medicines and Healthcare Products Regulations Agency (MHRA) and the US Food and Drug Administration (FDA) as a medical device, Directive 93/42/EEC Annex V. Always look for the CE mark and its number (Sterex’s is 0120), which means that the needle is approved by the EC through an independent assessor.

Needles are manufactured with different Shank sizes (the part that fits into the needle holder), and it is interesting to note that most of the English-speaking world uses the ‘F’ Shank - greater in diameter than the ‘K’ Shank, used mostly by countries in the Far East and parts of Europe. The needles sold in the UK are mostly an ‘F’ Shank and correspond to the available needle holders.

It would be a professional disservice to treat all clients the same and the reason for having such a wide variation of needles is to achieve optimum effectiveness, safety and client comfort. The advantages of having the choice of different materials offers the option of using hypo-allergenic metals such as gold when the therapist is made aware of her client’s possible skin reaction to nickel.

Gold and Insulated Needles

Gold plated needles offer a smooth resistance-free surface and are, therefore, easier to insert into the follicle. Added to this benefit is the fact that Gold is capable of conducting current better than most other metals that the current may be reduced - an added bonus for sensitive skin.

Use of a Gold needle would minimise possible skin trauma in darker skin types. It is well known that Afro-Caribbean skins (as well as Asian and some Eastern European skins) are inclined to hyper-pigmentation, a risk that should always be protected against at consultation stage, but because any pigmentation risk is exacerbated by heat in the tissue, it would be prudent to work with the Blend method where there is a minimum heat applied.

When is it advisable to use Gold Needles?

- Sensitive skin - prone to severe redness / allergies to nickel or stainless steel
- Afro-Caribbean and Asian skin types who may have a tendency to pigmentation
- Diabetic clients - skin has a lower pain threshold
- Gold gives a smoother insertion, because it is a smooth metal, it is also an excellent conductor of electricity, which occasionally allows the current to be reduced, resulting in a much more comfortable treatment for the client, with less resultant erythema (redness)

If using diathermy, an insulated needle would be the safest choice to ensure that the heat is kept at the dermal papilla, therefore prevented from rising and causing any pigmentation problems on the surface of the skin. In addition to this, the use of an insulated needle with the Blend method would negate the principle of a desired wider target area being reached and is not recommended.

- With insulated needles, 75% of the shaft is coated with an insulated material, leaving only the tip of the needle exposed, and is designed so that the current flows to the lower follicle and papilla only. In this way, destruction is limited to the tip of the needle, and surface reaction is prevented or reduced.

- It is recommended that insulated needles are only used with Short Wave Diathermy (heat) current as the chemical produced in Blend or Galvanic methods may lead to a possible deterioration of the insulated coating.

The Insulated needle is very popular in the USA, mainly because of the fact that your American counterparts are more inclined towards the ‘Flash’ technique (where Short Wave Diathermy is used on a very high intensity for a fraction of a second). However, the insulated needle has many advantages and benefits; once the needle is entirely coated in a micron thick polymer except for 1mm of the tip, it ensures that the current is discharged only at the tip. This is an advantage, not only for affecting the Flash technique, but is also ideal for use with Short Wave Diathermy when performed on a sensitive skin – or on a client with a low tolerance to the treatment or for use with Afro-Caribbean and Asian skins.

Size Matters

The size of the needle must be equal to the visually assessed diameter of the hair to be treated and as a course of treatment progresses, the size of the needle used on the same hairs will decrease as the hair becomes finer.

The objective is to discharge an adequate amount of destructive current at the base of the follicle where the new hair cells are formed, effectively disabling the hairs food supply and compromising its growth system.

Use of the correct size needle means that the therapist may work with a lower, more comfortable intensity and achieve effective safe results – but using a needle too small for the hair will prove ineffective at removing the hair and may result in an assumed need for a higher intensity of current, which will be both ineffective and painful for the client.

It is a fallacy that a smaller needle hurts less because it is easier to insert into the hair follicle – in reality the opposite is true, and with an equal current level and a smaller surface area the sensation caused is sharper and more pronounced.

Two different lengths of needle are available as our two piece needles are manufactured with two different Shank lengths - the part that goes into the hair follicle - called Short and Regular. Short is 3/16 of an inch long and Regular is 3/4 of an inch long.

The Regular needles are designed to provide the longer length where follicles are inclined to be equally long or deep. Whilst not definitive, it is generally found that the longer follicles occur on body areas whilst short follicles are more often found on facial areas. The Regular length provides an even more flexible needle due to its length and can thus assist performance.

The smaller the number the smaller the diameter of the needle, so if a very fine hair was being treated a size 2 or 3 would be selected. If working on very coarse hair a size 6 would be selected, with size 4 and 5 being used for those hairs in-between. The choice of diameter of the needle is paramount to the effectiveness of the treatment.

The needles used for those hairs in-between. The choice

The Dual Role

The needle actually has two important functions. Firstly, it is a guiding probe locating the active part of the lower follicle known as the dermal papilla, and is referred to by some as the ‘eyes’ of the electrologist. Then, in position, the needle obviously becomes the electrode, responsible for transferring current from the epilation unit to the target area in the skin and hair tissue.

In order to carry out the vital current efficiently, the needle surface must be smooth with a precise polished tip ( ours is diamond drawn medical grade stainless steel), which is highly polished and offers the user a needle capable of a smooth insertion and guaranteed conductivity (even if it is suggested that this is a good benchmark of quality).

Choice of needle should be made once all the relevant information is obtained from the client and the electrologist has had an opportunity to visualize the hair to be treated and the surrounding skin.

Type Diversity

There are many points to consider when choosing a needle.

- 2 different Shank types - ‘F’ & ‘K’
- 3 different materials used - Stainless steel, Gold & Insulated
- 2 styles - one-piece and two-piece
- 2 lengths - short and regular
- 6 sizes - varying in diameter from 2 to 6 (plus 10 for Advanced work)
The worth of the work is in the traits of the tool

Elaine Stoddart
Director of Training & PR

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This is more than just good practice; eventually the sale of medical devices without the approved CE mark will be prohibited throughout Europe, and manufacturers of medical devices who mark products with CE but without the notified body acceptance number immediately underneath will not be approved - and therefore will be liable to prosecution, as well as the distributors who sell them.

Finally, always check the expiry date - Sterex needles have a shelf life of 5 years, and the date is found on the underside of the box and on each pouch containing a needle.

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TWOPIECE Needles offers VITALITY at a number of FE Colleges, and more recently co-Industry as Therapist, Salon Owner, Trainer, Lecturer. Elaine has many years of experience in the Beauty Industry. Originally from an advertising background, Elaine worked for Electrolysis International Limited and Skin by Sterex. Elaine is Director of Training & PR for both Sterex Limited and Therapy book. Many thanks to Elaine Stoddart for this article. Elaine is Director of Training & PR for both Sterex Electrolysis International Limited and Skin by Sterex Limited. Originally from an advertising background, Elaine has many years of experience in the Beauty Industry as Therapist, Salon Owner, Trainer, Lecturer at a number of FE Colleges, and more recently co-author of the Heinemann S/NVQ Level 3 Beauty Therapy book.
Sterex needles are available from all good wholesalers/trade suppliers. For further details on Sterex products and training telephone 0121 708 2404, or email info@sterex.demon.co.uk or go to www.sterex.com.

Why is it so important to use the correct diameter of needle?

- To ensure the destructive agent (heat or chemical) is adequate to be effective
- To ensure correct follicular ‘fit’ thus preventing (Diathermy) heat raising to the surface and damaging the surface of the skin
- To prevent skin damage and over-treatment if too large a needle is used
- To prevent needle movement within the follicle if the needle is too small
- To ensure the most comfortable treatment

The Perfect Insertion

The decision as to whether to use a one-piece or a two-piece needle is very much a personal preference.

The two-piece needle provides invaluable ‘follicle feedback’ (essential flexibility and ‘feel’). The needle and the hair follicle and following the line of the hair. Correct depth should be adhered to (hair depth test could be used) and a magnifier and lamp will be used for protection, safety, for correct lighting and a clear view of the follicle. The skin surrounding the hair will be observed and any ‘dimpling’, ‘rippling’, or movement of the skin or flexing of the needle requires backing up, re-angling of the needle and re-attempting insertion. Always be accurate, it is better to be slightly slower and give accurate insertions, if it does not ‘feel’ right, remove the needle and insert again.

How can you make your ‘tools of the trade’ pay for themselves?

- Make £50 per box of needles!
- Gold needles - using 24 carat gold carries a cost implication of £3 or £4 more per box of 50 needles but with clever marketing they will earn you money.
- On your salon price list, note your prices for services as follows:
  - Diathermy treatment £10.00 (This is the average for 10 minutes work)
  - Blend price £12.99 (This is the average for 10 minutes work)
- 24 carat gold probes available £1 extra per treatment
- The client will be intrigued regarding 24 carat gold and will ask about them. You can tell them that the benefits are:
  - Smoother insertion. Gold is a very smooth metal and glides into the follicle more easily. Proving more comfortable for the client and less erythema
  - A more comfortable treatment. Gold is an excellent conductor of current meaning that sometimes the current can be turned down making it much more comfortable for the client and less erythema
  - Gold is hypoallergenic. So it is suitable for those with allergic reactions to metal and for sensitive skins and causing less erythema

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<tr>
<th>Probe</th>
<th>Benefits</th>
<th>Price</th>
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<tr>
<td>One-piece</td>
<td>Robustness useful in Advanced work and ‘rigidity’ for very shallow insertions, particularly for fine vellus hair positioned under the nose. However, as the one-piece does not flex as easily, this can be a disadvantage for inexperienced practitioners who may not have perfected the art of insertion techniques and may inadvertently ‘push’ the needle in where it may not naturally ‘ease’ in - thus resulting in poor probing technique. The skin surrounding the hair will be observed and any ‘dimpling’, ‘rippling’, or movement of the skin or flexing of the needle requires backing up, re-angling of the needle and re-attempting insertion.</td>
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<td>Two-piece</td>
<td>Provides invaluable ‘follicle feedback’ (essential flexibility and ‘feel’) and will flex when it meets resistance, allowing the electrologist to re-adjust her probing angle, direction or depth if required in order to achieve the perfect insertion. The one-piece does not flex as easily, this can be a disadvantage for inexperienced practitioners who may not have perfected the art of insertion techniques and may inadvertently ‘push’ the needle in where it may not naturally ‘ease’ in - thus resulting in poor probing technique. The skin surrounding the hair will be observed and any ‘dimpling’, ‘rippling’, or movement of the skin or flexing of the needle requires backing up, re-angling of the needle and re-attempting insertion.</td>
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