

Dear Electrologist ...



My name is Michael Bono, I live in Santa Barbara California. Since 1974, I have practiced blend electrolysis. During the last 15 years, I have taught the blend method in many countries, including the United States, Canada, Holland, Germany, Belgium, England, Japan and Peru.

This *Guide to the Blend Method*, is a brief summary of the blend method, intended for use by students in schools, or by therapists attending seminars in the blend method. This *Guide* gives you only the *very basic* working ideas for the blend method. Please be aware that to be a truly proficient blend therapist, you must learn much more about the blend method than is represented in this booklet!

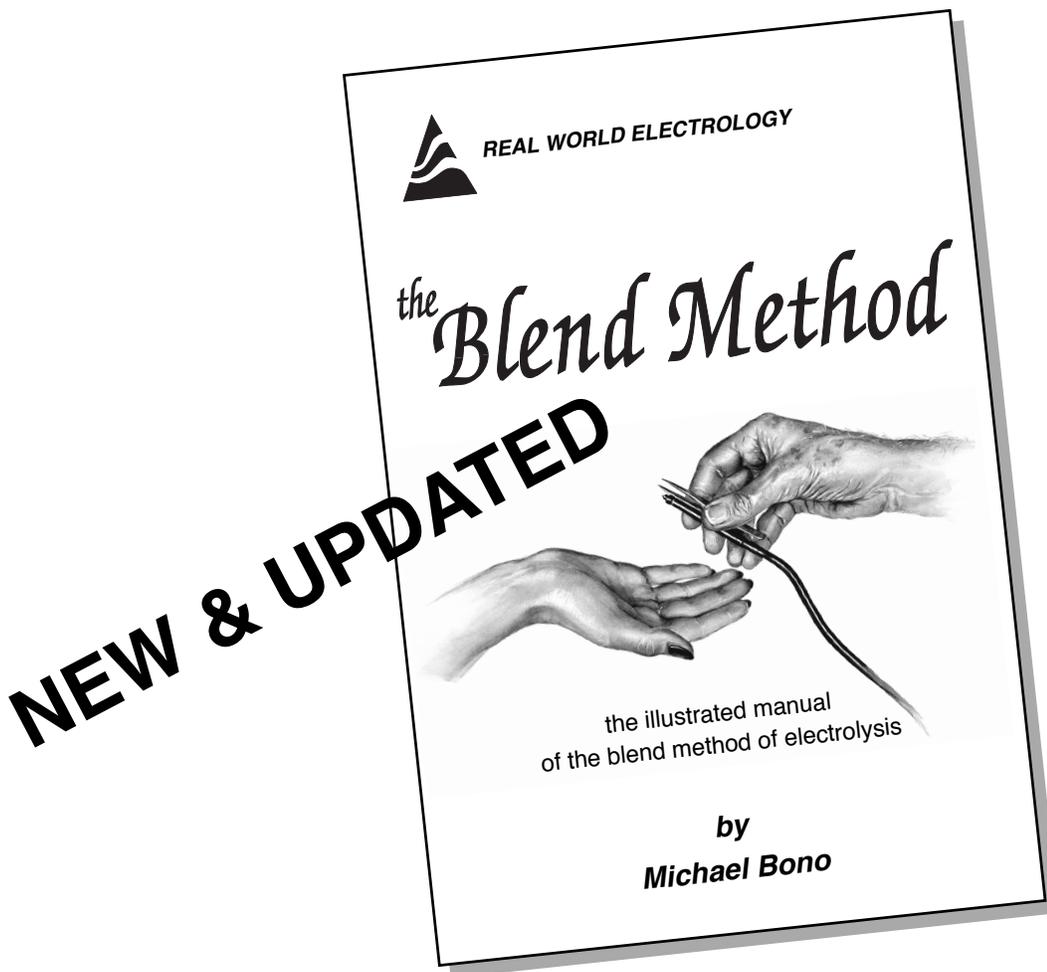
My book *The Blend Method: The Illustrated Manual*, (pictured next page), is the culmination of a long career in electrolysis, and a very

intense eight years of labor. My book, *The Blend Method*, is 190 pages in length. My book contains all the information you will need to become an expert blend operator. *The Blend Method* will become your constant companion for years to come.

You may purchase *The Blend Method* from any of the designated distributors (see next page). This "feature-length" book explains why the blend works best, scientifically explains all currents being used today in electrology (Direct Current and High Frequency), how to choose the proper needle, and how to choose equipment for your office. *The Blend Method* also contains a full tutorial on the blend method (including all the information found here in this little *Guide*). *The Blend Method* describes Face and Body Technic (two completely different ways to perform the blend), and clearly describes treatment on both women and men — including all areas of the face and body. The controversial subject of regrowth is finally made understandable. The book describes, in detail, how wounds heal and how to avoid overtreatment (pre- and post-treatment techniques are disclosed). Most importantly the latest CDC approved infection control techniques for electrology are explained. Also, pain control techniques that you can legally use in your office are divulged. Finally, the book explains how to select an epilator that will really do the blend method — some epilators don't work!

You may purchase my book *The Blend Method*, from any of the designated distributors — or even from your school! Whatever your choice, know that you will be entering an exciting new field using the most modern technique — *the blend method*.

Best Wishes!



The authoritative work on the blend...

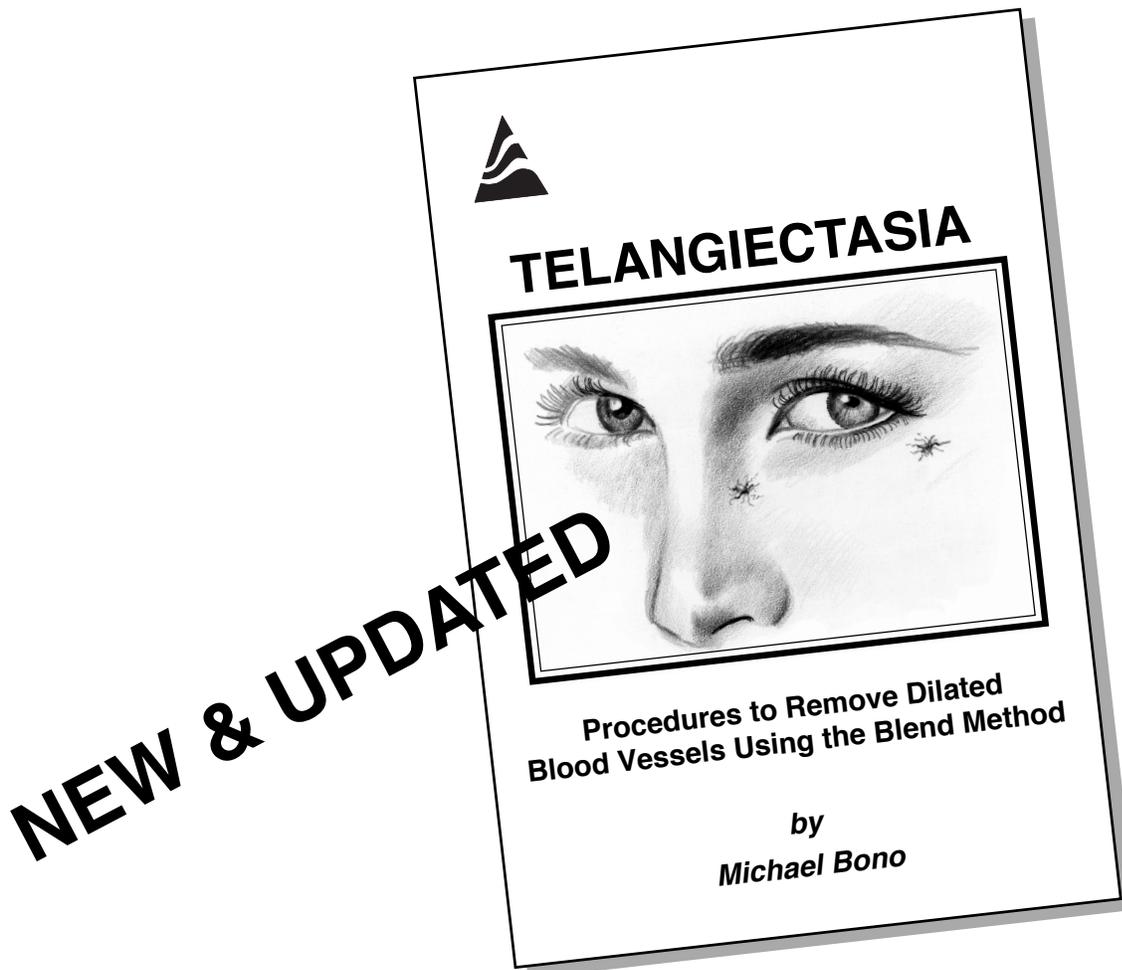
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≈ THE BLEND METHOD ≈
STUDENT'S GUIDE
ABRIDGED TEXT FOR SCHOOLS
AND ELECTROLOGISTS

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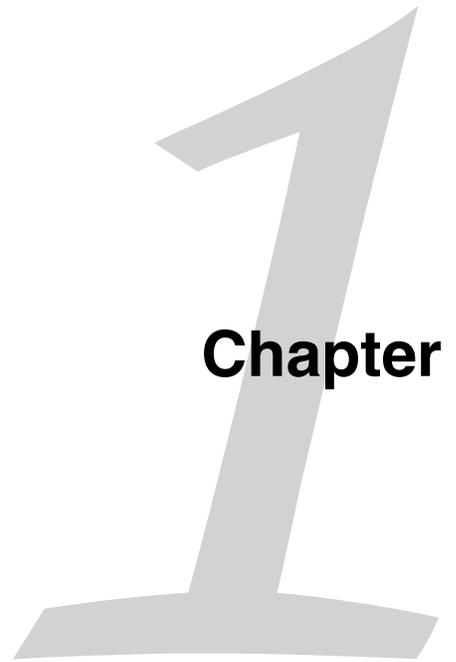
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Chapter

THE BASIC BLEND

This chapter explains the blend technique in a very simple way. Here you will get a quick idea of how to do the blend method—and why it is successful. With this idea, the rest of this *Guide* will be more understandable.

Key Terms:

Anchor:

Target area

Perilous zone

Critical point

Progressive epilation

BASIC IDEA

The blend method's basic idea is that the entire follicle must be destroyed to eliminate a hair permanently.

Although nobody knows for certain, most experts believe that hair growth can be generated from several structures. These include: the papilla, the hair bulge, and the germ cells of the follicle itself. Since these structures lie along the entire length of the follicle, it seems reasonable that the entire follicle and all "hair growth elements" should be destroyed.

Furthermore, even the experts that believe that only the papilla must be destroyed, should understand that the papilla is a *moving target*.

PAPILLA: A MOVING TARGET

For the sake of argument, let's assume that the papilla alone is responsible for hair growth and is the only target for electrolysis treatments. It would then seem to follow that electrolysis treatments that destroy only the papilla would be effective.

However, many electrologist assume that the papilla is stationary and easily located by the tip of the electrolysis needle. They advise you to insert to anagen depth, to locate and coagulate the papilla only. This approach, however, is mistaken.

Because of misunderstanding of medical drawings, many electrologists and writers assume the papilla remains fixed: always at full anagen depth. Several electrology textbooks have even drawn hair diagrams that incorrectly show the pa-

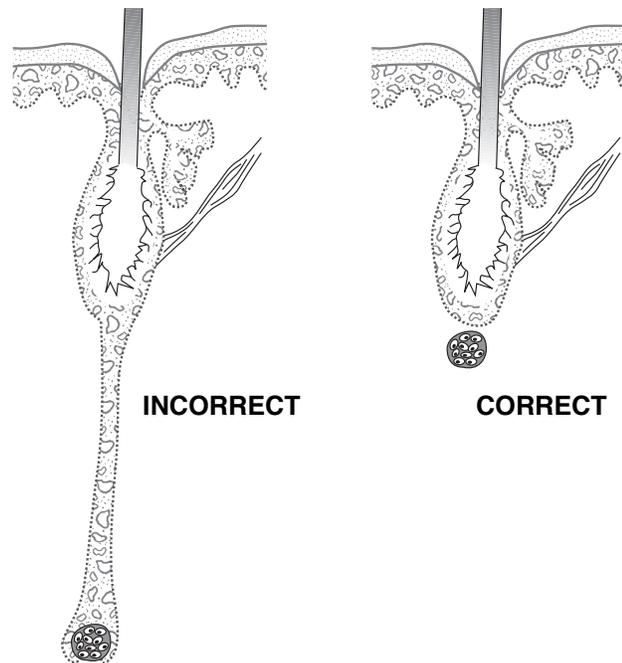


Figure 1

Follicle in telogen stage of growth. Some authors incorrectly show the papilla remaining at full anagen depth. In reality, the papilla moves upward with the shrinking hair follicle.

pilla remaining at full anagen depth while the follicle and hair retreat to telogen stage (Figure 1).

The papilla, however, is a moving target! The papilla drifts upward with the shrinking telogen follicle and may actually travel as much as two-thirds the way up the original follicle depth. This phenomenon is called "papillary drift."

Remember, the blend method produces a path of destruction the full length of the follicle. Therefore, wherever the papilla may have "drifted," or whatever stage of growth the follicle is in (anagen, catagen, or telogen), the blend will destroy the papilla. This aspect of the blend treatment is probably the main reason that the blend method is most effective (Figure 2).

Indeed, other methods that produce a path of destruction the full depth of the follicle are also effective. DC current, either single-needle or multiple needle, and low-level manual thermolysis also produce very good results, with minimal regrowth.

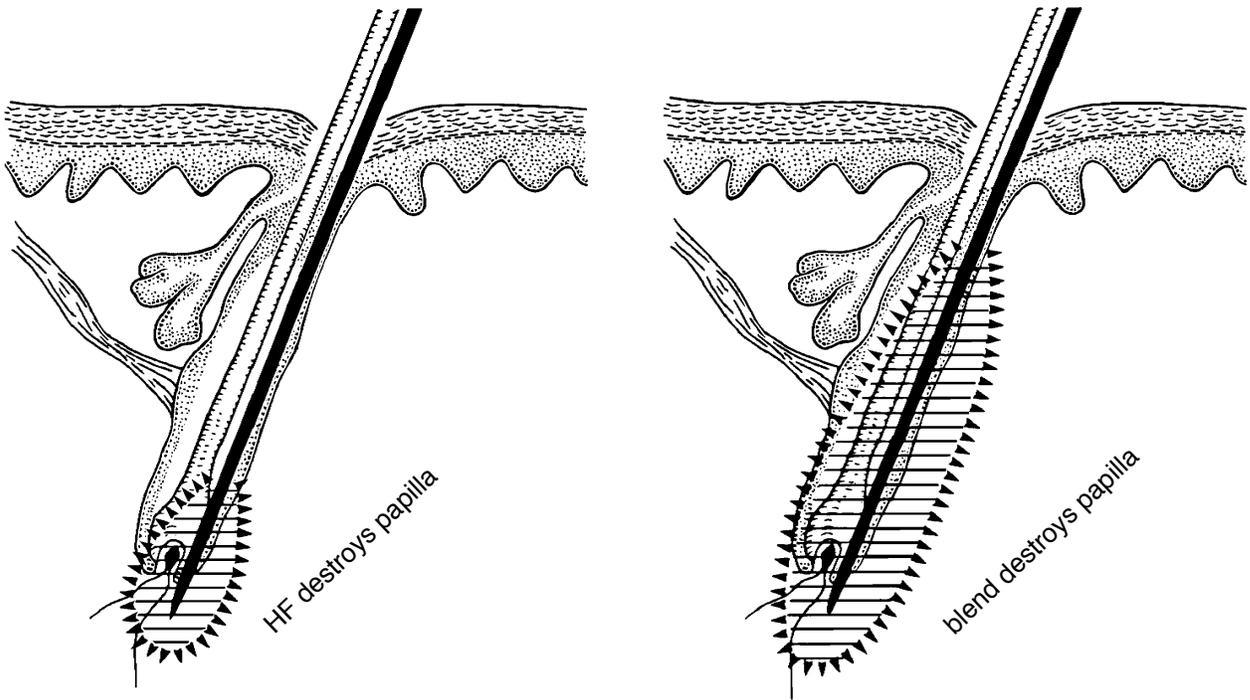
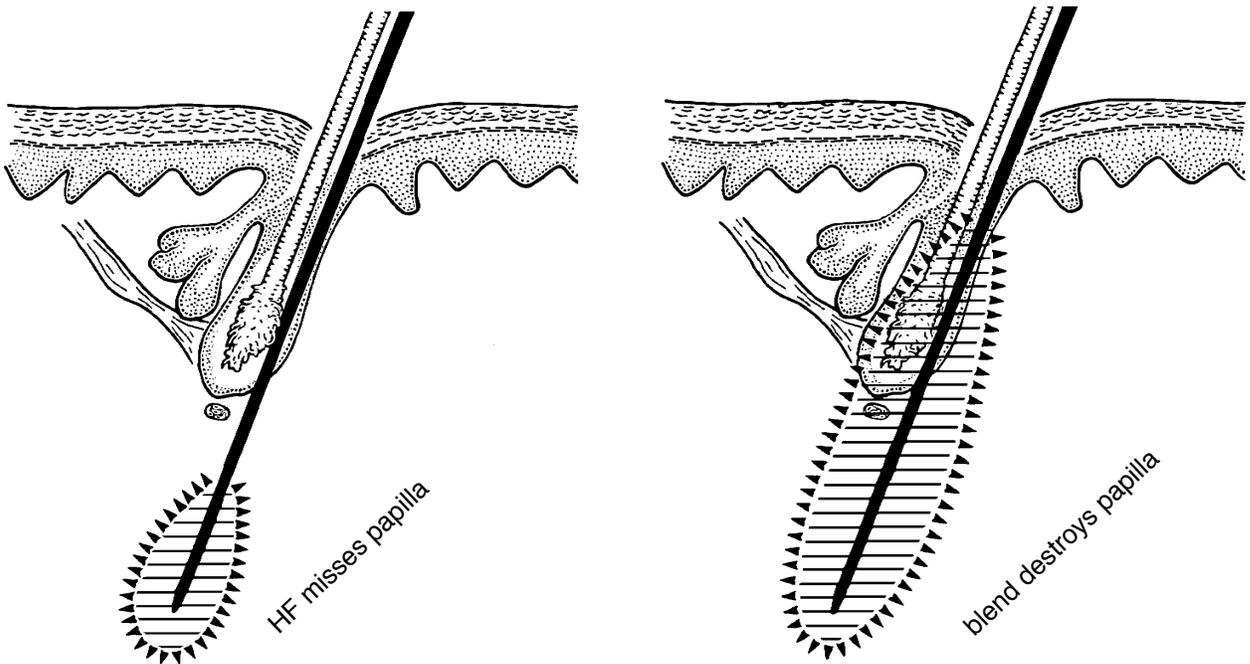


Figure 2

Above: Effect of automatic HF (targets the papilla only), and the blend on a follicle in full anagen depth—both methods succeed in destroying the papilla.

Below: Effect of automatic-HF (targets the papilla only), and the blend on a follicle in telogen stage. Notice that automatic-HF has missed the papilla, whereas the blend succeeds in destroying the papilla.



THE BLEND GOAL

The goal of the blend method then, is to destroy the entire follicle so that regrowth does not occur. However, if current is allowed to rise to the upper levels of the skin, marking can take place—even scars.

As you will discover in your lessons in school, when the needle is inserted into the follicle, the HF current starts at the tip of the needle and moves upward in a pear-shaped (or "tear-drop") pattern of destruction. The blend therapist must know when to stop the rise of current before the surface of the skin is destroyed!

If only the electrologist could somehow see under the skin and know where the current is going. If only she could stop the HF current when it has completely destroyed the follicle, and not yet injured the upper tissues.

Indeed, the blend method allows you to "see" under the skin! As you shall see, the blend electrologist uses the actual structure of the hair and follicle itself, and the "two-handed" technique, to tell when the current has reached the critical point.

First, I will describe the structures that are important for this "seeing under the skin." Then I will describe how these structures are used in the "two-handed" technique.

STRUCTURES THAT ENABLE YOU TO "SEE" UNDER THE SKIN

THE ANCHOR

The hair root holds (or "anchors") the hair to the follicle—but the upper root is the true anchor.

The anagen anchor: The lower part of the hair is mushy and weakly attached. The upper part of the hair is hard and connected with the root. The

root is strongly held to the epidermis and tightly joined to the dermal sheath. Thus the entire root in the upper follicle holds or "anchors" the hair. When a hair is pulled out, the root separates from the dermal sheath and tears loose from the epidermis.

The telogen anchor: Examination of a telogen stage hair and follicle again shows that mainly the upper root anchors the hair.

In telogen, the entire lower hair structure shrinks. The root shrinks and the bulb disappears. Yet, the hair strongly holds because the main anchoring mechanisms are all still there.

THE PERILOUS ZONE

The upper dermis and epidermis—essentially everything above the sebaceous gland—is called the "perilous zone." If the currents climb upward and destroy this zone, visible scars may result.

Scar tissue replaces every treated follicle. However, if the follicle is properly treated, scar tissue forms mainly in the lower follicle. If the upper dermis is severely damaged, scar tissue may form in the upper follicle.

Considerable tissue damage can take place below the perilous zone with little cosmetic consequence. Properly done electrolysis damages deep tissues only; leaves the upper dermis uninjured and therefore produces no visible scar.

THE DILEMMA

The dilemma is this: You must destroy the target area—the entire follicle below the sebaceous gland—without damaging the perilous zone (Figure 3). This seems impossible since the area being treated is under the skin and invisible. This problem would be solved if only we could somehow see under the skin and coagulate only the target area.

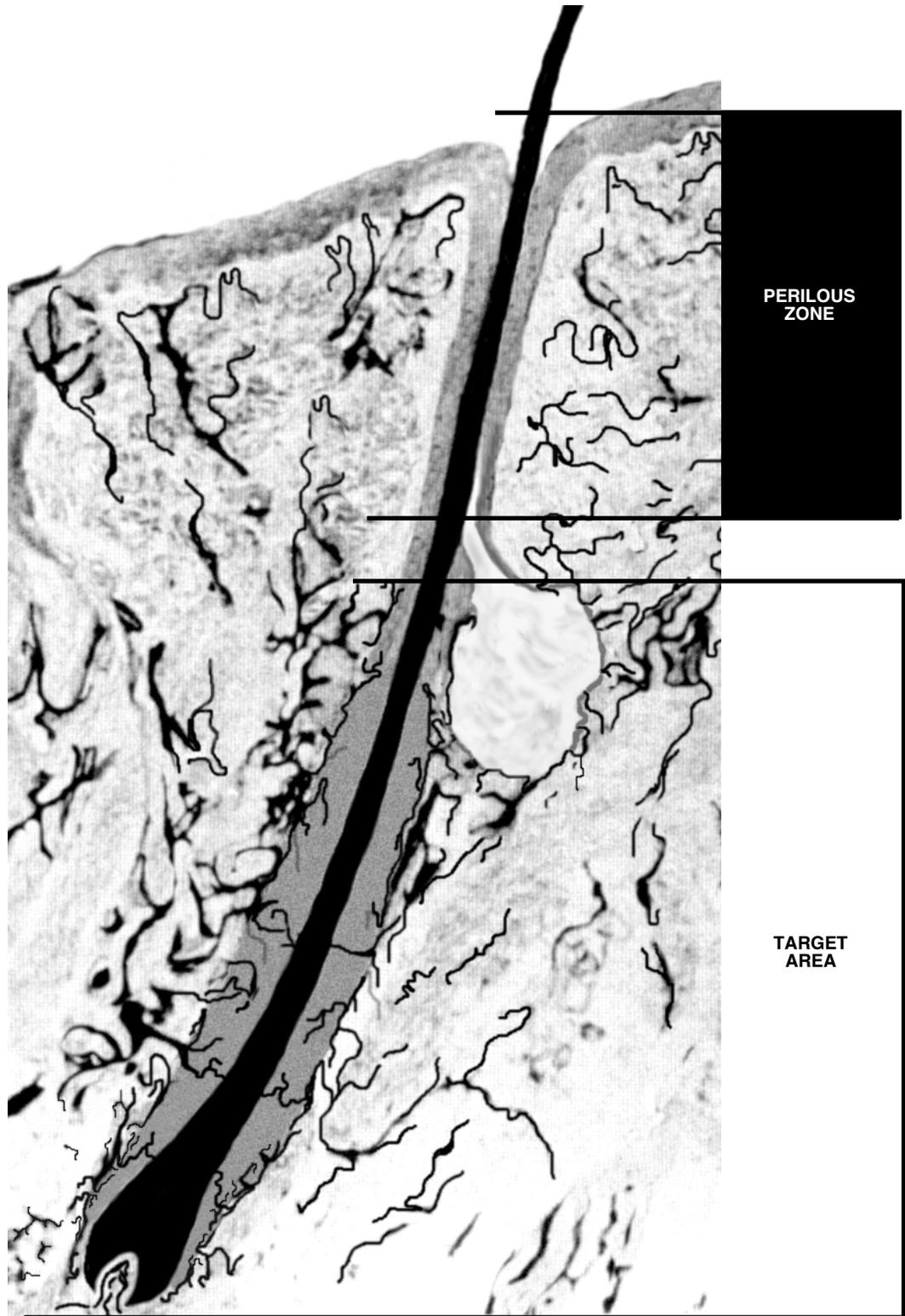


Figure 3

The target area must be coagulated to eliminate the hair. However, destruction of the perilous zone can result in scars.

Remarkably, the blend method allows you to "see" under the skin and control the placement of destructive current. You are able to coagulate the entire target area without destroying the perilous zone. The blend method accomplishes this seemingly impossible task, by exploiting the structure of the hair, "root" and follicle itself.

For the blend method, the single most important structural component is the location of the so-called anchor. *The anchor lies completely within the target area, and below the perilous zone* (Figure 4). The blend capitalizes on this lucky "coincidence."

Let us now see how the two-handed technique (called "progressive epilation") uses the structures of the hair and follicle to "see" under the skin. By using these structures and the two-handed technique, the electrologist is able to destroy the entire follicle, without allowing the current to rise to the perilous zone. In so doing, the upper skin is protected and marking or scaring is not a problem.

PROGRESSIVE EPILATION

Progressive epilation is done in the following manner. You insert the needle to full anagen depth—whether the hair is in anagen, catagen or telogen. You do this, because you do not know the exact location of the target area—such as the papilla (remember, "papillary drift"). However, you know that the entire target area, in all stages of hair growth, always lies somewhere between full anagen depth and the top of the anchor.

With the other hand you hold the hair with the tweezers. You turn on the currents. Coagulation starts at the tip of the needle and climbs upward in a pear-shaped pattern. With currents on, you gently lift the hair. When the anchor is free, the hair epilates and the currents are turned off—the hair is treated.

When the anchor is free, you know two things: First, the entire target area, the lower two-thirds of the follicle, is coagulated. Second, the currents have not yet reached the perilous zone, the upper one-third of the follicle. Indeed the currents have reached the so-called critical point—between the target area and perilous zone. The currents are then turned off, for you have done enough to destroy the target area *and* protect the skin from overtreatment and unnecessary damage.

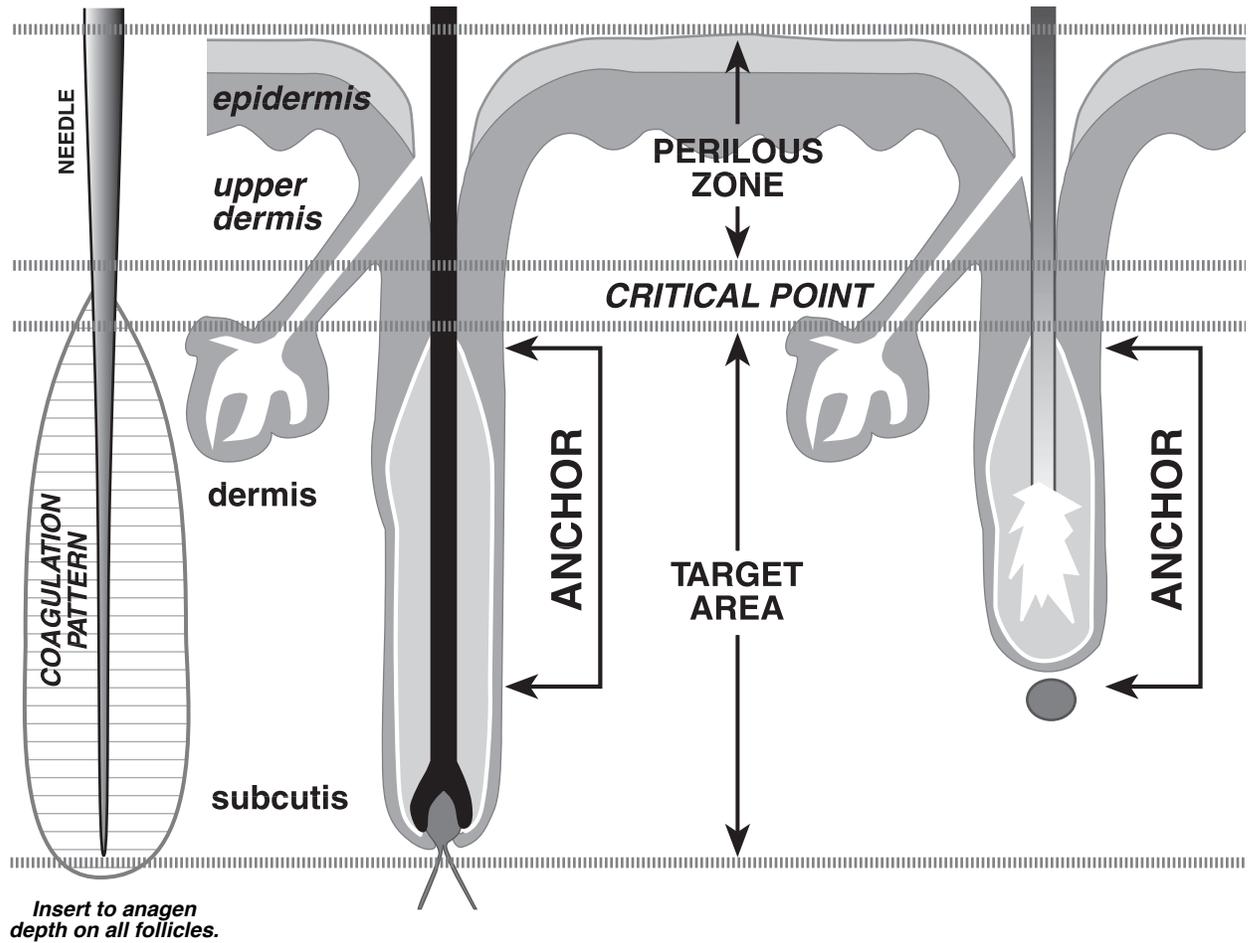


Figure 4

In anagen, catagen, and telogen, the anchor is the same: it lies completely within the target area and below the perilous zone. The critical point is between these two sections.

GROWTH STAGES

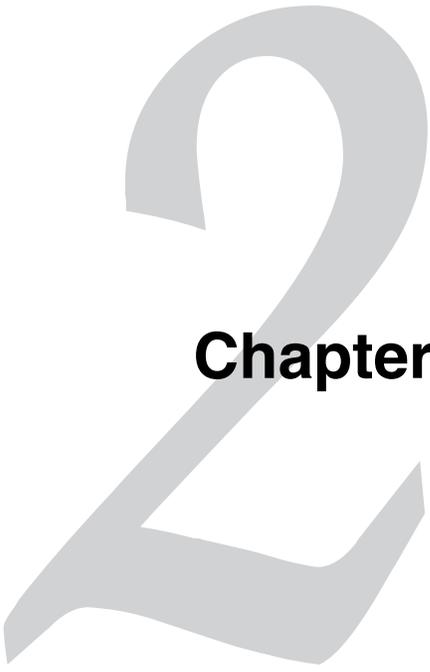
Progressive epilation succeeds in all stages of hair growth. In anagen, you insert the needle to full follicle depth. The currents rise, destroy the target area and free the anchor.

In catagen and telogen the follicle has contracted, but you follow the same procedure. You insert to full anagen depth and allow the currents to climb to the critical point. The anchor becomes free and the hair epilates easily. Once again, the target area is destroyed but the perilous zone is protected.

CAN YOU DO THE BLEND WITHOUT THE TWO-HANDED TECHNIQUE?

For some reason, beginning electrologists want to do the blend method without using the progressive epilation technique. Unfortunately, many experienced electrologists use a blend epilator without using the two-handed technique. Let me make an important statement: *You are not doing the blend method unless you are using the two-handed technique.* Progressive epilation is the heart of the blend method.

No matter how difficult or uncomfortable learning progressive epilation is, you must learn it! The procedure is difficult at first, but consider the alternative. Without this technique, you can never be sure if the target area has been thoroughly destroyed. You cannot know if currents have started to destroy the perilous zone. Failure to use this technique increases the chances of regrowth, *and* scars.



Chapter

NEEDLE INSERTION

The following is a step by step tutorial of the blend method. The next four chapters discuss needle insertion, current settings and progressive epilation.

Key Terms:

Pathfinder

Depth Gauge

Froth residue

90° (right) Angle

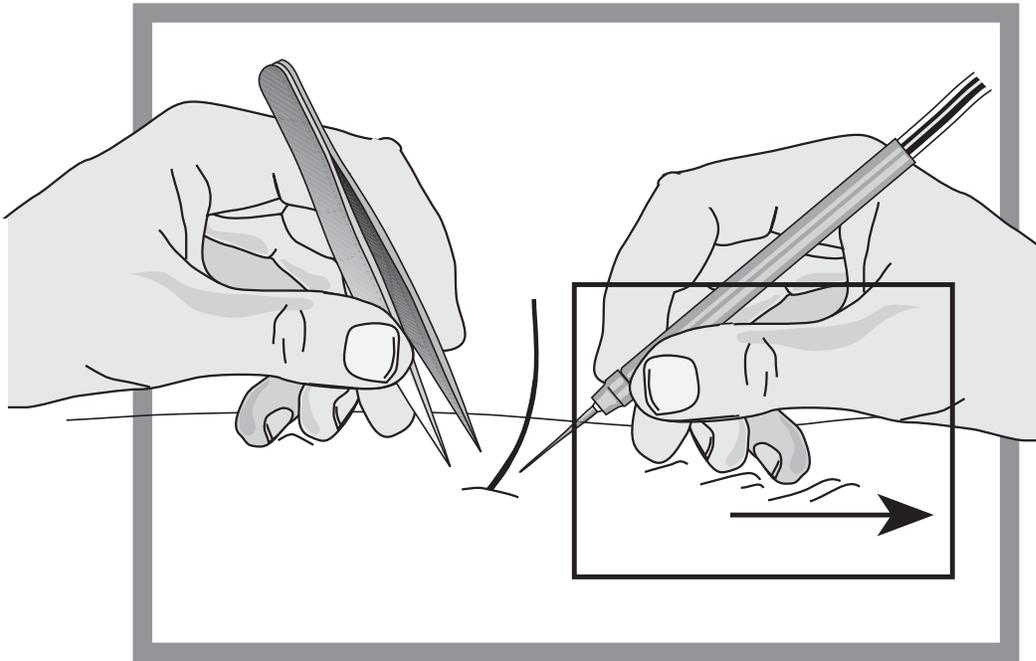


Figure 1

Hold tweezers and needle-holder loosely. Gently stretch and "firm" the skin. Position tweezers close to the hair, at a 90° angle to the needle.

STRETCH THE SKIN

Hold the tweezers and needle-holder with the thumb and first finger of each hand. Use the remaining fingers to gently press and stretch the skin. Depending on your style, fingers may be held inward, (Figure 1) or may point outward. Stretching, firms the tissue and helps needle entry into the follicle.

ALIGN TO PATHFINDER

To accurately aim the needle, focus on the tip of the needle and the follicle opening. Place the tip in the follicle opening. Align the needle to the first millimeter of hair shaft emerging from the follicle (Figure 2).

In most cases, the first millimeter of hair shaft points to the exact location of the follicle. Thus, this segment is called the "pathfinder." Nearly all hairs emerge straight out of the follicle and then curve. Obviously, an accurate insertion aligns to the pathfinder; not the upper hair shaft.

The pathfinder is accurate because it is fresh out of the follicle and relatively wet. Further out, the hair shaft becomes progressively dryer and curls. This curling action is like a wet ribbon that dries and curls at one end (Figure 2). Once inserted, keep the needle stationary as the currents coagulate the follicle. Do not wiggle the needle or move it up and down.

ESTABLISH DEPTH GAUGE

After several minutes of treatment, you will have epilated a few anagen hairs. Insert into a similar-looking anagen hair and thoroughly coagulate the follicle. Remove the needle from the follicle. Place the tweezers at skin level. Grasp the hair and epilate. The epilated root and hair shaft are the depth gauge (Figure 3).

Lay the epilated hair next to the needle and make a mental note of correct needle depth. Insert to this depth on every similar size hair in the treatment area. Be sure to include both the hair root and hair

shaft in your assessment. The correct depth gauge extends from the hair bulb to where the tweezers hold the hair. (Omitting the shaft is a common error.)

Do not tweeze out a hair to use as the depth gauge. Remember, an anagen hair is used as the gauge. It may take several minutes to find the "right" anagen hair; meanwhile numerous telogen and catagen hairs are tweezed. Patients come to us for permanent hair removal—not tweezing. Tweezing also bunches up the sheath, so the hair exhibits a somewhat shorter root than a correctly epilated anagen hair.

As you continue the treatment, a tiny amount of DC "froth" sticks to the needle exactly at skin level. Use this residue as an indicator for correct insertion depth. After some time, too much froth accumulates and makes the indicator inaccurate. When too much residue is seen, pick it off with the tweezers.

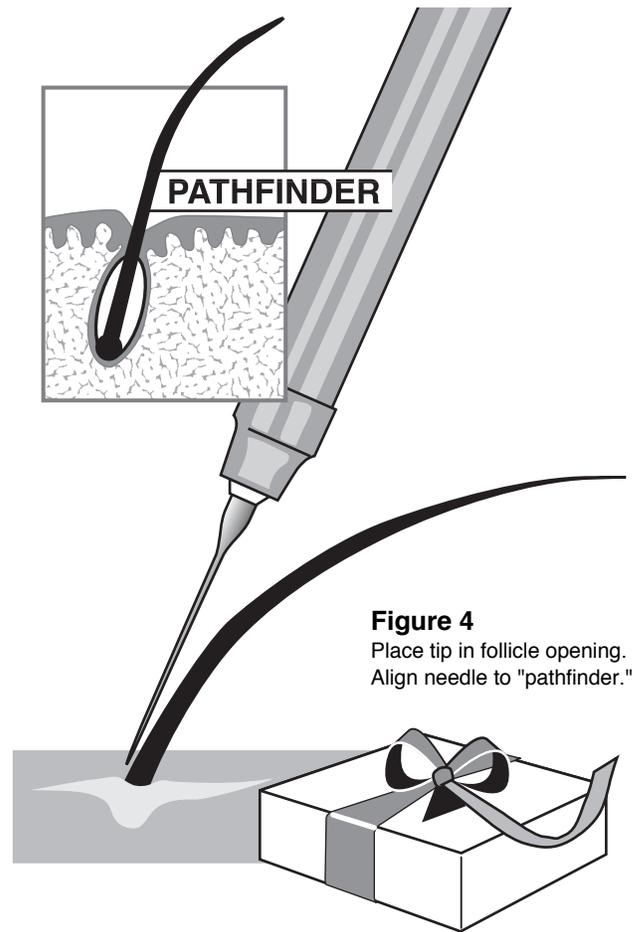


Figure 4
Place tip in follicle opening.
Align needle to "pathfinder."

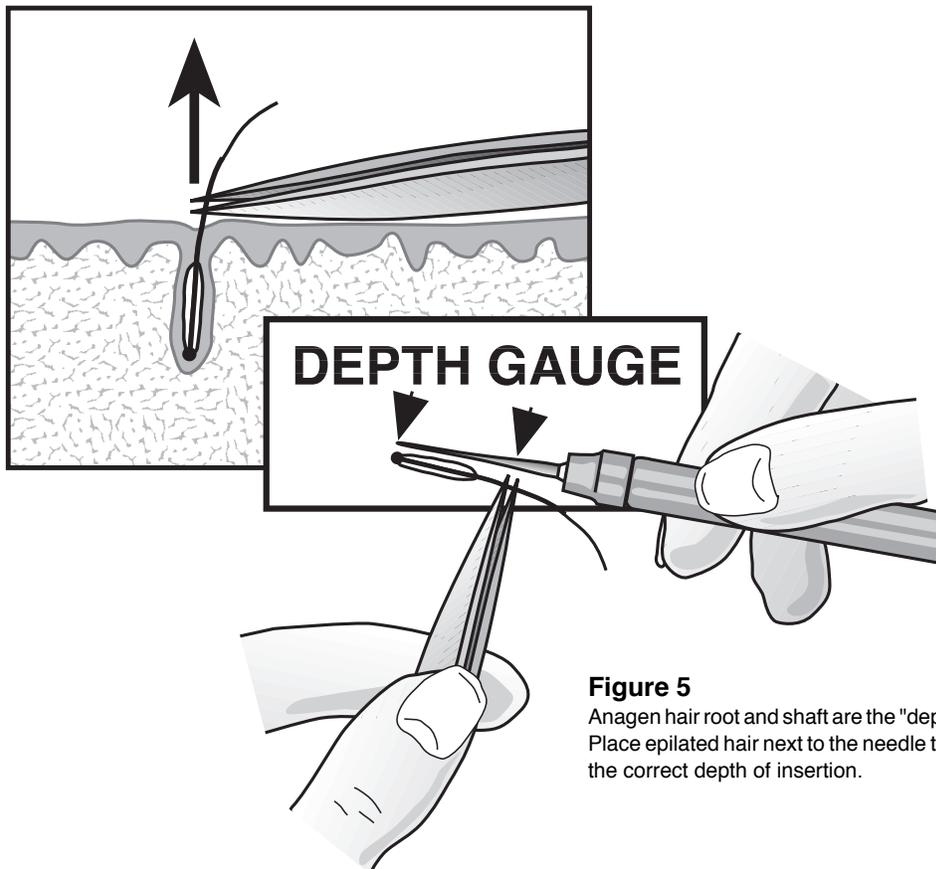
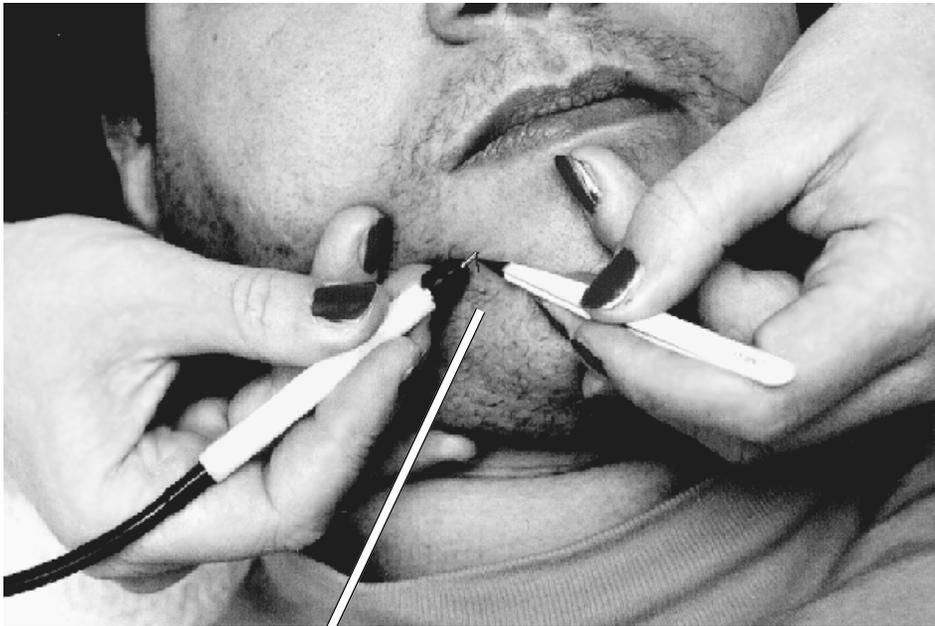


Figure 5
Anagen hair root and shaft are the "depth gauge."
Place epilated hair next to the needle to establish
the correct depth of insertion.



**INSTRUMENTS
AT 90° ANGLE**

Figure 4
Positioning on the face.

HF SETTINGS

The HF current controls the placement of both HF *coagulation* and DC *lye* in the follicle. Therefore, HF governs the blend procedure. DC is merely added to the procedure using a mathematical equation. For the blend method, HF is the *master current!*

Proper levels of HF are established first— with no DC. The most common error made by blend electrologists, is to start the treatment with both HF and DC together.

Key Terms:

High frequency

Starting point

Working point

TURN OFF AUTO FEATURES

Today, nearly all blend epilators have automatic or computerized features. For the moment, use your machine in the *full manual mode*. Follow instructions in your manual and turn off the automatic functions. Turn off the beepers, second-counters, skin moisture sensors, and single (or no) footswitch control.

For learning the blend, we need a *manually controlled* HF intensity dial and a separate footswitch to turn the HF on and off. (Also, a separate DC control dial and footswitch.) Later, when you understand the fundamental blend procedure, you can try the automatic functions built into your epilator.

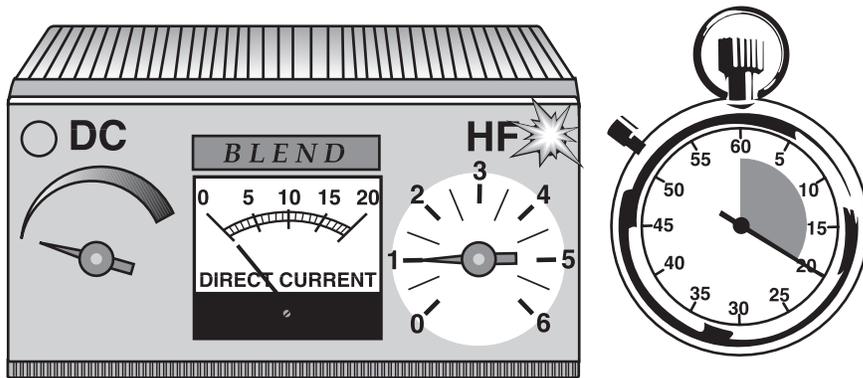
SET TO STARTING POINT

The manufacturer's manual should indicate the exact HF starting point of your epilator. (Your epilator's manual may refer to this as the "face-technic" starting point.)

The starting point is a specific number on the dial such as "1" or "3," or may be a number on the HF meter such as "40." If your manual does not state the starting point, find it yourself. Unfortunately, some manuals have incorrect data, so you might want to confirm the correct starting point yourself.

Confirm the starting point by experimenting on yourself. Set the HF to the supposed starting point. Insert into your medium-sized arm hair and apply the current. You should feel mild current in 2 to 3 seconds. Keep the current on for a full 20 seconds. Overtreatment must not take place during the 20 seconds, and the hair should epilate effortlessly. If these conditions are met, your epilator is correctly set at the starting point.

The starting point is the lowest HF setting—do not go lower. If current is set lower, the heating pattern inverts. Begin all treatments at this "starting point" setting. Allow the patient to get used to the low current; then gradually advance the HF power.



Finding the HF setting:

- DC is off.
- HF is set to starting point "1."
- HF is turned on.
- HF flows to the count of 20.

Figure 1

Hypothetical blend epilator: this "make-believe" machine will be used for demonstration purposes. Don't be confused, these HF values *will not* correspond to your epilator.

Note: For demonstration purposes, I've drawn an imaginary epilator (Figures 1 and 2.) On this epilator, the HF starting point is "1." Don't assume this epilator is real. Your epilator will have different numbers.

COUNT SECONDS

With the HF dial set to the starting point ("1" on our imaginary epilator) insert the needle and turn on the HF with the footswitch. Ask the patient if she feels the current! You must communicate with the patient to know if coagulation is taking place (Figure 1).

If the patient says "yes, I do feel the current," continue to apply the current. Don't worry about causing pain because you are working at the lowest setting. If the patient says she feels "nothing," increase the HF until current is felt.

With the HF flowing continuously, grasp the hair with the tweezers. Gently pull the hair to see if it will epilate. Do not constantly pull on the hair. Just gently test the hair every few seconds. Eventually, the hair epilates without tugging.

Now, insert into another hair. Apply the HF and start counting seconds—until the count of 20. Again, gently pull on the hair. If the hair epilates before the count of 20, stop the HF and make note of the time. For example, the hair might epilate in 15 seconds.

If the hair does not epilate in 20 seconds, increase the HF power. The skin is dry and needs more current. Almost no coagulation takes place when epilation time is more than 20 seconds. Thus, you need not ask the patient if the current is too strong, because she feels nothing. Of course, if your insertion is dreadfully inaccurate, the hair will not epilate in 20 or 100 seconds. Be sure your insertions are perfect.

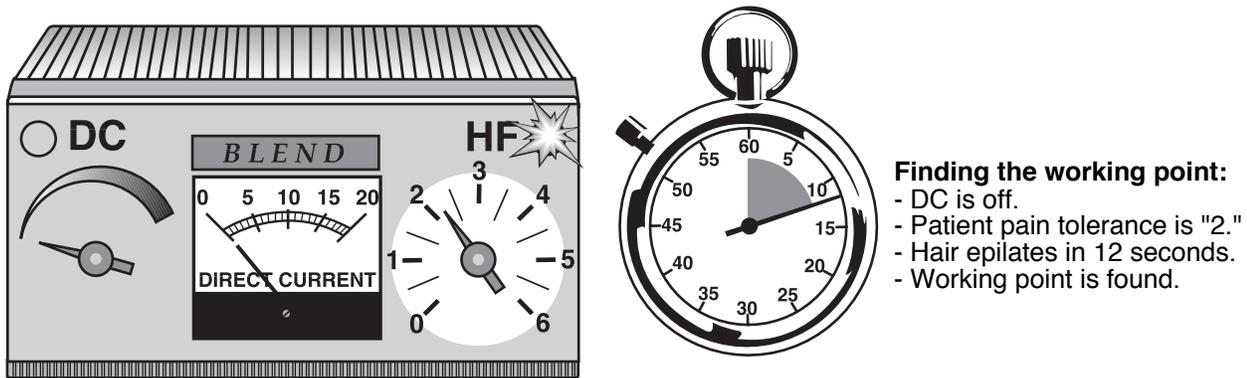


Figure 2
Hypothetical blend epilator: Here we have found the "working point" to be just slightly above "2" on the HF dial, with epilation time of 12 seconds.

- Finding the working point:**
- DC is off.
 - Patient pain tolerance is "2."
 - Hair epilates in 12 seconds.
 - Working point is found.

FIND WORKING POINT

Repeat this testing procedure several times. Slightly increase the HF intensity each time you coagulate and epilate a new hair. Eventually you will find the working point: the precise HF level used to remove hairs on this particular patient. On our "make-believe" epilator, we have an HF intensity reading of just slightly above "2," with epilation time of 12 seconds (Figure 2).

Thus, the working point consists of two factors: the actual number on the HF dial (or meter), and the number of seconds it takes to epilate the hair. Both of these factors are determined primarily by the patient's pain tolerance. Encourage communication with the patient to find this endurance level.

Let the patient know what you are attempting. Explain that you are trying to find her "pain tolerance level," and that higher current kills the hair in less time. Get the patient actively involved in finding the HF level that produces "tolerable discomfort."

During your joint quest to find the working point, don't become too kind. Don't say: "Oh, I'm sorry. Does this hurt too much?" Keep your conversation simple and businesslike, for too much pampering lowers the patient's psychological ability to tolerate the treatment pain.

4 Chapter

DC SETTINGS

As we have seen, finding the HF working point, based on the patient's pain tolerance, is a very simple operation. Although easy, the procedure discloses important information necessary for adding the DC.

In a very real sense, finding the working point reveals the skin's *electrical resistance*. For example, a dry skin has high resistance, and more HF is necessary to produce coagulation. On the other hand, a moist skin requires less HF to produce coagulation because electrical resistance is relatively low.

Once established, the HF working point acts as an electrical path for the DC. The HF creates this pathway for the DC and allows correct "blending" of the two currents.

Key Terms:

Unit of Lye

Lye chart

Blend formula

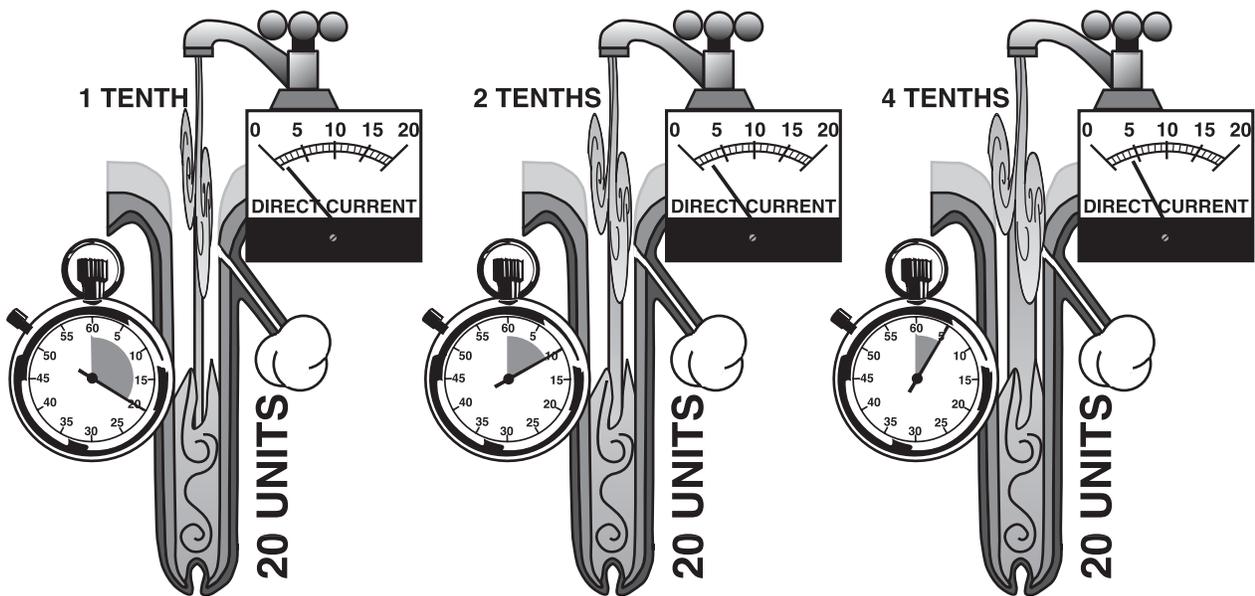


Figure 1
UNIT OF LYE is the product of *current* multiplied by *time*. Notice that as current increases, less time is needed to produce the same amount of lye.

UNIT OF LYE

Understanding the commercial formula for lye production, Hinkel developed an easy measurement for lye production in the follicle. He named this measurement a "unit of lye." This measurement, however, is not detectable. Instruments cannot weigh or measure such tiny amounts being produced in living human tissue. Rather, Hinkel says we must "imagine [the unit of lye] as a tiny droplet ... of lye solution." Thus, the "unit of lye" is only an idea.

Hinkel explains that a *unit* of lye is the product of the amount of *current* (in DC milliamperes) multiplied by the *time* current flows (in seconds).

For example, 20 units of lye are produced when 1 tenth mA of DC flows in the follicle for 20 seconds. The same amount is produced when 2 tenths mA flows for 10 seconds. With 4 tenths mA, 20 units are produced in only 5 seconds (Figure 1). Although "make-believe," the unit of lye measurement is perfect for the blend method.

LYE CHART

With the units of lye formula, Hinkel set about the task of assigning the correct amount of lye for all hair sizes. Methodically, he studied the work of those operators who most successfully destroyed hair follicles. He wrote down machine settings and epilation times. He tested the formula on all types of hairs.

For example, he noted that large body hairs were typically removed in 12 seconds (HF epilation time). Those operators getting the best results, usually set the DC meter to 5 tenths. If epilation time was faster, say 6 seconds, those same operators would increase the DC to 10 tenths. Using the formula, Hinkel discovered that in both cases the operators were producing 60 units of lye for large hairs.

Hinkel experimented and collected data for nearly twenty years. On the basis of this information, he assigned quantities of lye to each hair size. Thus, he originated the units of lye chart (Figure 2).

"UNITS OF LYE" CHART		
TYPE OF HAIR	USUAL LOCATION	AMOUNT OF LYE
Vellus hair	Cheek, upper lip	<i>15 units</i>
Small terminal	Cheek, upper lip	<i>30 units</i>
Medium terminal	Side of face, chin, arms	<i>45 units</i>
Large terminal	Chin, legs, back and shoulders	<i>60 units</i>
Very large terminal	Beard	<i>80 units</i>

Figure 2

UNITS OF LYE CHART: Each size hair is given a specific amount of lye. Small hairs require only 15 or 30 units, medium hairs get 45 units and large hairs require 60 or 80 units of lye.

Thus, the concept of units of lye has two meanings. First, it identifies hair sizes. You look at a hair and estimate its size in units. Second, it tells you the amount of lye that must be delivered to achieve destruction of the follicle. Whether you are using HF or not, the follicle must be given its proper units of lye according to its unit size.

IDENTIFY UNITS OF LYE

When you are able to look at and identify hair sizes in units of lye, you can assign the correct amount of lye to be delivered. Please, don't get confused about this simple concept.

Simply put, *you* decide how many units of lye to give the follicle—not the epilator. You look at the hair. You judge the unit size of the hair (30, 45, 60, etc.). Then, you give that amount of lye to the follicle.

If you used only 1 tenth mA of DC, and no HF, you would never have to worry about machine settings. A 30-unit hair would epilate in about 30 seconds. However, adding HF creates an entirely new situation because epilation time is greatly reduced.

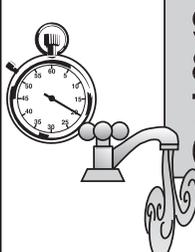
USE HF EPILATION TIME

In the last chapter, you learned that the working point is established by the HF. The working point, of course, gives the time it takes to epilate the hair. You learned that, using correct HF intensities, all hairs epilate in 3 to 20 seconds. Thus, you only have 3 to 20 seconds of epilation time for every size hair. The apparent problem is how to deliver the correct amount of lye within this 3 to 20 second period.

Imagine DC as a water faucet "pouring in" lye, and the follicle as a container. Each follicle must be filled with a specific amount of lye. Obviously, if you have less time to "pour in" the lye, you must turn up the flow of DC.

Suppose you are treating a 60-unit hair. If you had 60 seconds to fill the follicle, you could use 1 tenth mA of DC. But what if the HF epilation time is 20 seconds? To fill the follicle, you must turn up the DC so that lye is "poured in" faster. With the DC turned up to 3 tenths mA, you produce 60 units of lye in 20 seconds ($3 \times 20 = 60$ units). If epilation time is only 10 seconds for the 60-unit hair, you turn up the DC to 6 tenths mA ($6 \times 10 = 60$ units).

VELLUS upper lip, side of face		SMALL TERMINAL upper lip, face, and arms		MEDIUM TERMINAL face, chin, arms, and stomach		LARGE TERMINAL chin, legs, back, shoulders, bikini		VERY LARGE TERMINAL man's beard and back	
15 UNIT		30 UNIT		45 UNIT		60 UNIT		80 UNIT	
sec	mA	sec	mA	sec	mA	sec	mA	sec	mA
7	▶ 2	15	▶ 2	18	▶ 2	20	▶ 3	20	▶ 4
6	▶ 2	14	▶ 2	17	▶ 3	19	▶ 3	19	▶ 4
5	▶ 3	13	▶ 2	16	▶ 3	18	▶ 3	18	▶ 4
4	▶ 4	12	▶ 2	15	▶ 3	17	▶ 3	17	▶ 5
3	▶ 5	11	▶ 3	14	▶ 3	16	▶ 4	16	▶ 5
		10	▶ 3	13	▶ 3	15	▶ 4	15	▶ 5
		9	▶ 3	12	▶ 4	14	▶ 4	14	▶ 6
		8	▶ 4	11	▶ 4	13	▶ 5	13	▶ 6
		7	▶ 4	10	▶ 4	12	▶ 5	12	▶ 7
		6	▶ 5	9	▶ 5	11	▶ 5	11	▶ 7
				8	▶ 6	10	▶ 6	10	▶ 8
				7	▶ 6	9	▶ 7	9	▶ 9
				6	▶ 7	8	▶ 7	8	▶ 10
						7	▶ 8	7	▶ 11
						6	▶ 10	6	▶ 13



DC SETTINGS

sec = seconds epilation time.
mA = DC tenths of milliampere.

Figure 3

Divide "units" by seconds to find the DC setting. Notice that with less time, more DC is required. (Times shown in the illustration are normal epilation times for each size hair.)

BLEND FORMULA

Hinkel devised a simple formula: Divide *units* of lye by *seconds* of epilation to find the DC setting. This equation works for all hair sizes and epilation times. Let's see how this works.

Suppose you judge a hair to be 30 units in size. You then find your HF working point to be 10 seconds epilation time. You now know two facts: the required amount of lye (30 units), and the time you have to "pour in" the lye (10 seconds). So, you divide 30 units by 10 seconds and get "3."

SET DC METER

The number you get by dividing units by seconds is the actual DC meter setting. In our example, the quotient is "3." Set the DC meter to 3 tenths mA. (All epilators differ, so check your manual to set the meter on your machine.)

The best way to grasp this technique is to practice. Suppose you are treating 15-unit hairs that epilate in about 5 seconds. Divide 15 by 5 and you get "3." Set the DC meter to 3 tenths mA. Suppose you are treating 80-unit hairs that average 11 seconds epilation time. Divide 80 by 11 and you get "7.3." Just round off the number and set the DC meter to 7 tenths mA. Obviously, shorter epilation time requires higher DC intensity (Figure 3).

One word of caution: Don't use mathematically precise DC settings. Don't attempt to use such settings as "4.5 tenths." Just round off the number. It is not important to achieve exact settings. Remember, you are mainly "blending and balancing" the two currents.

Do not use second counters. Just count seconds yourself. Some epilators have beepers that indicate time. Do not use beepers. As you shall see, epilation time must not be so precise that your judgment is not used.

5 Chapter

PROGRESSIVE EPILATION

For the blend, "progressive epilation" is the key controlling system. It unites machine operations, the blend "program" and your professional judgment into a single process.

At this point in the tutorial, you can choose the right needle, find the HF "working point" and set the DC meter. Essentially, you know the machine operations.

The blend, however, is more than machine operations. *Judgment* is the foremost component. Is the skin moist or sensitive? Is the hair thoroughly treated? Is overtreatment taking place?

Such questions are only answered by keen judgment and insight. As you shall see, *progressive epilation* is the operating system that links professional insight and epilator mechanics into a single process.

Key Terms:

Progressive epilation

Loop the hair

Aftercount

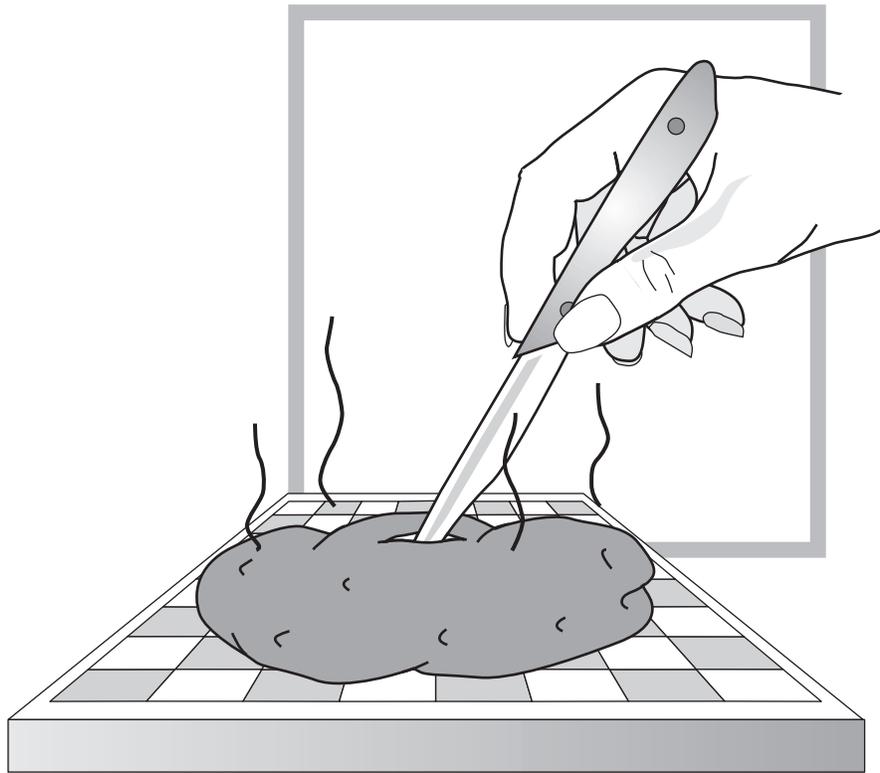


Figure 1

Progressive epilation is like testing a potato to see if it's cooked.

Conceptually, progressive epilation is simple. It's like testing a potato to see if it's cooked. Whether you boil, bake or roast a potato, you test it by sticking a knife into it (Figure 1). A certain "feeling" tells you the potato is done. You may use a simple wood stove or a modern microwave oven, but you still test with a knife.

Similarly, progressive epilation tells you when the hair is cooked. With both currents on, you gently lift the hair until it epilates with "just the right feeling." You may need to adjust the currents or allow more time to achieve this "just right feeling."

The "just right feeling" of the perfectly epilated hair cannot be measured, but relies on your sense of touch. A properly treated hair offers little "feeling" resistance when epilated. However, some slight resistance should be felt.

With time, patience and practice you will master this important skill. However, whether you use a simple blend epilator or a computerized device, *progressive epilation is the only way to verify a properly treated hair!*

THE ANCHOR

For our purposes, you need only pay attention to the anchor. When the anchor releases from the destroyed tissue and the hair epilates, you may assume the hair is properly treated. Whether the hair is in anagen, catagen or telogen, the position of the anchor is nearly the same. Thus, hairs in all stages of growth receive the same treatment procedure.

INSERT TO ANAGEN DEPTH

You know the correct depth of insertion by establishing the depth gauge. Operationally, you just insert to anagen depth.

Using the depth gauge, the target area of an anagen hair can be determined because the papilla is at anagen depth. However, in catagen and telogen the papilla drifts upward. Thus, you never know the exact location of the papilla and target area in catagen or telogen.

Whether the hair is in anagen, catagen or telogen, the entire target area is always somewhere between anagen depth and the top of the anchor. So, you insert to anagen depth. The currents rise and eventually dislodge the anchor. The hair epilates. Thus, you destroy the entire target area regardless of its location.

Insert to the same depth on all hairs of the same size. For example, if you are treating 45-unit chin hairs, insert to your established anagen depth on all similar 45-unit hairs. If you treat smaller or larger hairs in the same area, say 15-unit hairs, you must find the right insertion depth for these different size hairs.

With the needle inserted and currents flowing, see that the skin remains level. Sometimes the needle is lifted and causes the skin to "tent" (Figure 2-B). This error compels the needle to slip upward in the follicle. Consequently, the lower target area is not treated, but the perilous zone is often damaged by the HF.

Beginning electrologists often push-down with the needle and make a dimple in the skin (Figure 2-C). This common error produces unfortunate results. When the needle is pressed against the epidermis, the HF "short circuits" into the upper skin. As a result, the lower follicle receives almost no HF current. This mistake seldom causes over-treatment because the HF is harmlessly absorbed over a large surface area of the epidermis. However, the hair is insufficiently treated and regrows.

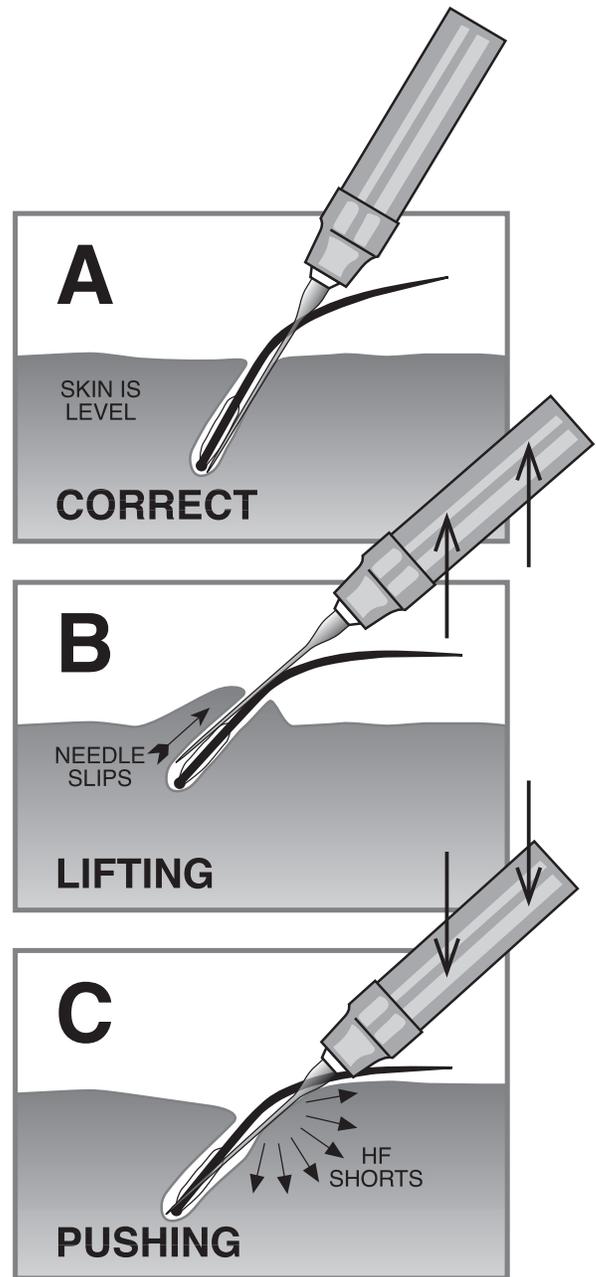


Figure 2

A) During treatment, the skin must remain level. B) Lifting the needle causes "tenting." The follicle is insufficiently treated and upper skin damaged. C) Pushing down with the needle causes dimpling and short circuits the HF.

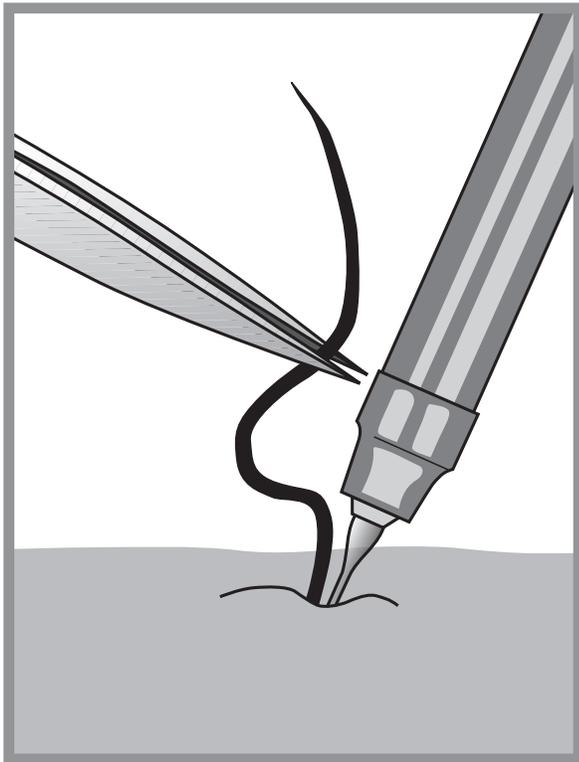


Figure 3

Make a loop with the hair to ensure you are not pulling. Gently lift to test the hair. Then, return to the loop position.

HOLD HAIR WITH TWEEZERS

After the needle is inserted and both currents turned on, hold the hair with the tweezers. Although easier to accomplish, *do not hold the hair first and then insert!* (Most beginning electrologists make this mistake.)

When the tweezers hold the hair, slight tension is put on the hair that slightly changes the apparent direction of the pathfinder. The first few millimeters of hair out of the follicle must be totally undisturbed so that the correct angle of insertion can be determined.

Don't get frustrated trying to hold the hair. Remember, only the tips of the tweezers grasp. As you hold the hair, don't touch the tweezers to the needle. This tweezer-to-needle contact, short circuits the HF into your body and stops the current from entering the follicle.

GENTLY TEST HAIR

With the needle inserted and both currents on, *gently* test the hair. As you count seconds, momentarily lift the hair with the tweezers. Test every few seconds until the hair releases with little traction.

The most common error of beginning electrologists is to pull on the hair continuously. The novice is anxious and wants the hair to release before the skin is damaged. So, the beginner starts tugging on the hair. This action pulls the skin up and plunges the needle down into the skin—substantially below anagen depth. I have seen beginners insert the entire available length of the needle, sometimes more than two times deeper than anagen depth.

Such a deeply injected needle impedes the hair's release because the heating pattern forms far below the follicle. Also, greater needle depth increases surface contact area. Thus, the needle becomes "cooler," and coagulation takes much longer. The novice becomes frantic as the hair refuses to release—then, pulls with even more vigor. Finally, in desperation, the hair is tweezed.

Avoid even the slightest premature pulling. As you hold the hair, nudge it down to form a tiny loop (Figure 3). The loop shows that you are not pulling the hair. When you test, gently pull up for a brief moment. (Keep the skin level.) If the hair doesn't release, return it to the loop position and test again in a few seconds. Repeat this procedure until the hair releases with little resistance.

APPLY DC AFTER-COUNT

When the hair epilates, turn off the HF. Coagulation has reached the "critical point." *Keep the needle in the follicle* and continue to apply the DC for a 2 to 3 second after-count.

The hair shaft and root partially insulate the follicle from both currents. With the hair evacuated, the naked follicle is defenseless and fully exposed to the DC. Lye penetrates the denatured cells and swirls into the sebaceous gland to ensure the follicle's demise.

If you have properly blended the currents, you will see lye froth overflowing the follicle during the after-count. Don't worry about lye injuring the skin. The epidermis and infundibulum (the follicle opening) are dry and nearly impervious to the lye. If no froth is seen, check your computations—the DC may be too low. Conversely, if large amounts of froth are seen well before the after-count, the DC may be too high.

CORRECT YOUR ERRORS

The DC after-count gives you a last chance to correct any errors. When the hair epilates, you may discover your insertion was too shallow. Just insert deeper. Apply the DC for a longer after-count, perhaps 4 to 6 seconds. You may even apply the HF during the after-count to coagulate the missed lower follicle. Watch for overtreatment.

Some manufacturers have computerized the after-count. You always get exactly 2 seconds of DC when the HF is turned off. This is a mistake. You must be able to judge each epilation, individually. You may wish to give a longer after-count. Or, if the follicle appears overtreated, you will not give an after-count.

TEN STEPS

You now know the main blend procedures. Operationally, these can be summarized in ten steps. The next page has a chart with these steps. Refer to the chart each time you begin a treatment and soon the "ten steps" will become "second nature."

TEN STEPS TO THE BLEND

1) SIZE THE HAIR: Before you begin the treatment, *look* at the hair and decide the size in units of lye. Is it a 15, 30, 45, 60 or 80-unit hair (pages 140-142*)?

2) CHOOSE THE CORRECT NEEDLE: Select a needle that is about the thickness of the hair and long enough to achieve full (anagen) insertion depth (page 122*).

3) FIND THE WORKING POINT: With HF *only*, find the epilation time based on the patient's pain tolerance (page 135*).

4) ESTABLISH DEPTH OF INSERTION: Using the depth gauge technique, find the anagen insertion depth (page 129*).

5) COMPUTE UNITS OF LYE: Divide units by seconds. For example, 60 units (hair size) divided by 10 seconds (epilation time) equals "6" (page 143*).

6) SET THE DC METER: The quotient from the computation is the actual meter setting. From the above example, set the meter to 6 tenths mA (page 143*). (Consult your manual to set your epilator's meter.)

7) BEGIN TREATMENT: Insert to anagen depth, turn on *both* currents and start counting seconds.

8) HOLD THE HAIR: Grasp the hair with the tweezers. Loop the hair to avoid accidental pulling (page 151*).

9) PROGRESSIVELY EPILATE: Gently test the hair until it releases effortlessly.

10) GIVE DC AFTER-COUNT: With the hair epilated and the needle in the empty follicle, turn off the HF and continue to apply the DC for another 2 to 3 seconds (page 153*).

*These pages refer to the main text, *The Blend Method, the Illustrated Manual of the Blend Method of Electrolysis*, by Michael Bono (1995). For a complete explanation of each step, you may refer to the main text.