

Straight Razor Shaving

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September 2015

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Introduction

This manual is designed for those new to straight razor shaving. The material leads the shaver through the major skills and knowledge required to succeed in their efforts.

The information in this document is deliberately concise and to the point.

Read through this manual carefully until you understand the material. It is strongly advised that you read the “Common Mistakes” section at the bottom of this manual before shaving with a straight razor.

Resources

Additional resources are available at BadgerAndBlade.com and www.StraightRazorPlace.com, and other straight razor user sites on the Internet. The wiki articles at this site are located here:

http://wiki.badgerandblade.com/index.php/Main_Page
http://straightrazorplace.com/srpwiki/index.php/Straight_Razor_Place_Wiki

Additional help is available from Larry Andreassen:

LarryAndro@WhippedDog.com

Vintage straight razors, supplies and equipment are available at many sites. Larry Andreassen’s site is www.WhippedDog.com, which currently specializes in reasonably-priced, entry-level shave gear. Shave-ready vintage razors, strops, honing services and barber’s hones are available.

Another quite popular and quality site is www.StraightRazorDesigns.com where many straight razor supplies can be purchased.

Philosophy

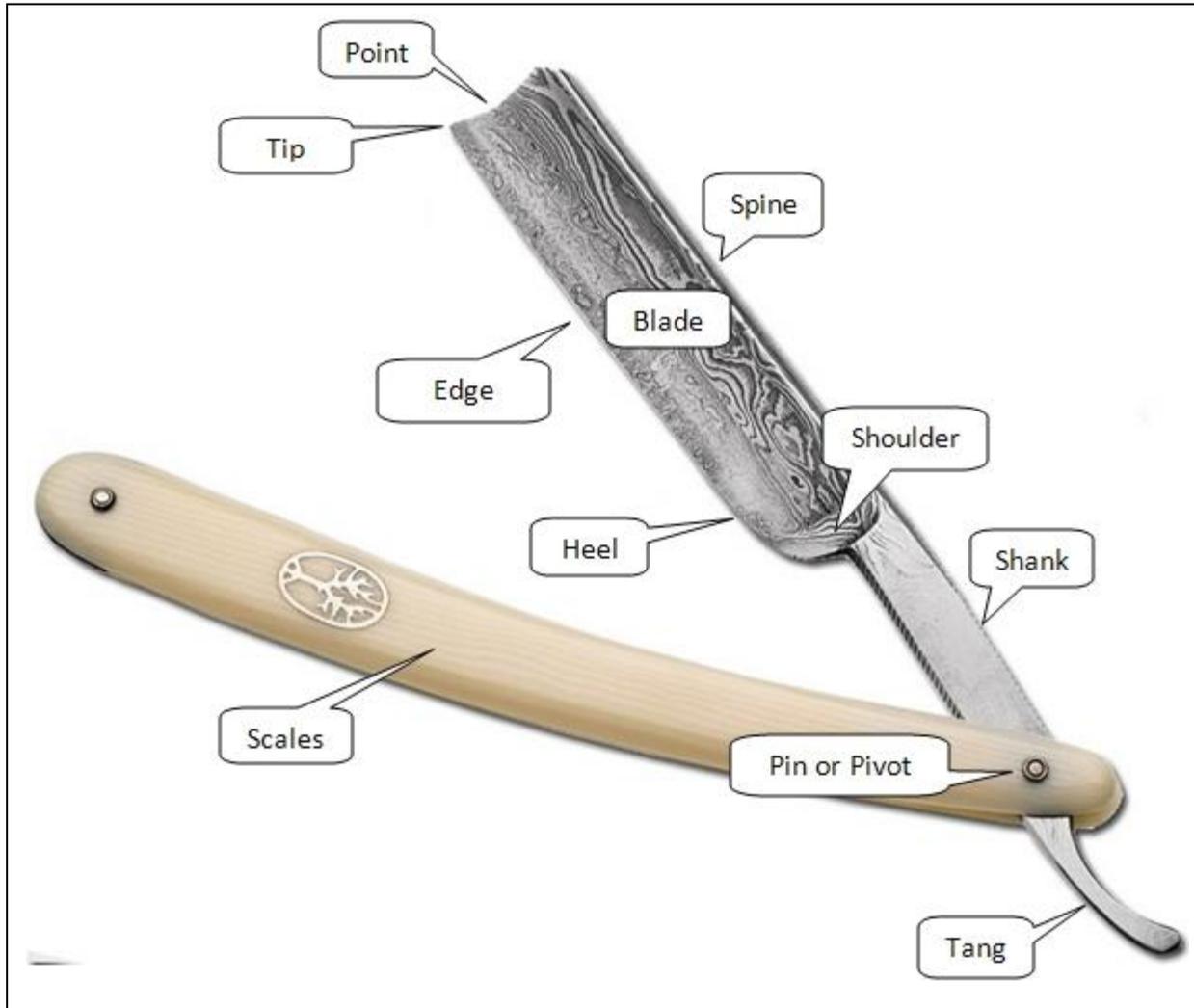
Although this manual is designed for those new to straight razor shaving (“newbies”), a very basic knowledge of wet shaving is assumed by this manual. Otherwise, this manual would be very large!

Given this philosophy, it is to be expected that you may not fully understand some concepts that are discussed below. When this occurs, consult the wiki articles and threads at www.StraightRazorPlace.com, www.BadgerAndBlade.com and other Internet resources.

You may also address questions to Larry Andreassen by email for personalized answers.

Straight Razor Nomenclature

The following diagram lists the parts of the straight razor most commonly referenced in this document.



Lathering

The most common setup for creating lather is a shaving brush, the traditional shave mug and shave soap, with lather being created on top of the soap. I don't favor this method as the lather can become too soapy and thick by the end of the shave. Rather than build lather by this method, I recommend putting a little soap and water on the brush, applying it to the face, and lathering on the face.

Another method and my favorite, is the use of a separate mug or bowl for lather. (For brevity, only bowl will be referenced below. But, you may use a mug or bowl or any suitable container.)

This is called the lather bowl. (Any small bowl from the kitchen will do, and I won't tell your wife! Later, if you continue this method, buy a nice ceramic bowl that is aesthetically pleasing.) Using this method, the shave soap plug, or puck, doesn't have to be placed in a mug. It can be stored in any convenient way, such as in a Ziploc bag, or other small container. .

With the brush full of hot water, but not dripping, swirl the brush on the soap for 30 seconds to load it with soap. Then, scrape the soap off the brush sides into your lather bowl. Remoisten the brush and repeat the process.

Swirl the brush in the lather bowl to create lather. You might need to add a little water for the best lather. But, until you learn lathering, start by swirling without adding water. Swirl for 30 seconds and then examine the lather. It should be very wet and airy. (It will not ever be as light and fluffy as aerosol shave cream, which is too dry for straight razor shaving.) Your lather might be perfect, or you might need to add a few more drops of water. But, experiment, adding water and swirling, until you can get a rich moist lather consistently.

My experience is that lathering in a lather bowl is the easiest method, and also produces the best lather. However, many shavers successfully lather in a traditional shave mug or on their face. So, pick the method that best works for you.

Face Preparation

Face preparation before shaving with a straight razor does not differ largely from the preparation for other forms of wet shaving. You must warm and moisten the whiskers to soften them prior to shaving. But, you knew that!

Here are a few suggestions...

- Wash your face with soap at the beginning of face preparation to remove oil. This makes it easier for water to soak into the hair follicles.
- Apply hair conditioner to your beard at the end of face preparation, immediately prior to application of lather, to further soften your whiskers.
- Some shavers omit the use of a conditioner, or use a few drops of pre-shave oil to soften their whiskers.

Shaving Details

Shaving with a straight razor is a learned physical skill that requires some knowledge of technique, and a lot of practice. You can expect to shave portions of your face well within a week or two. You might get reasonably good full shaves within one month. Consistently good full shaves might well take several months.

Enjoy the hunt for that elusive perfect shave!

Variables

There are many variables in a good shave with a straight razor. These include:

- Sharpness.
- Angle.
- Passes
- Slicing.
- Pressure.

These variables are discussed below.

Sharpness

Satisfying straight razor shaves require a sharp blade. However, the sharpest straight razor is not as sharp as commercial shaving blades. And, in fact, do not need to be as sharp. The technique used while shaving is as important, if not more important than the sharpness of the blade.

Angle

During shaving the edge of the blade makes contact with the skin, and the spine is elevated. Under most circumstances, the spine of the blade should be elevated about 30 degrees

Passes

A shaving pass is simply the movement of the blade across the face while shaving. There are three basic shaving passes:

- With the grain (WTG)
- Across the grain (XTG)
- Against the grain (ATG)

The grain referred to is the growth pattern of your whiskers; the direction your whiskers lay down when long. Shaving with the grain (WTG) is shaving in the same direction as your whiskers lay down. It is the most important shaving pass, and at times can be the most difficult shaving pass.

Your first shaving pass should always be WTG. After this, run your hand on your face in the same WTG direction as you shaved. Your face should feel smooth to the hand as it moves across your face. If you feel stubble, you should relather and shave WTG again.

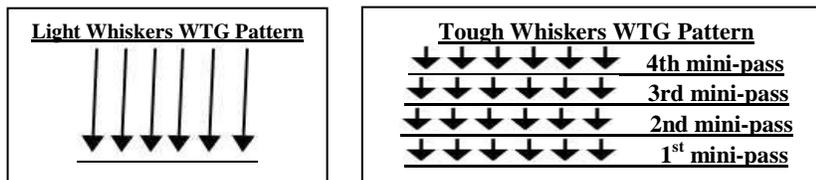
The WTG pass is the most important pass. Do it well, and the rest of the shave falls in place. Do it poorly and enjoy a good case of razor burn!

Shaving WTG is often all that is needed for a satisfying shave. If a closer shave is desired, you will have to shave XTG, and possibly ATG.

Relather your face before each shaving pass.

Edge Shaving

Let's say you have a patch of tough whiskers on your chin. You probably won't be able to shave down through the whiskers as easily as along your cheek. It might be better to "shave from the edge", specifically shave from the *bottom* edge and slowly shave upward in narrow passes. This is shown in the second diagram here, and explained in the following paragraphs.



To "shave from the edge" you still shave WTG as before. But, you will start shaving at the bottom of the area, the 1st mini-pass above. Shave a wide, but shallow patch, about 3 inches wide and 1/3 inch deep. Now, shave another 3 inch wide strip, but 1/3 inch above the previous shave line. This is the 2nd mini-pass above. Then, shave another 3 inch wide strip 1/3 inch higher than before the 3rd mini-pass. Continue shaving higher and higher, 1/3 inch higher each time, until you have shaved the area.

When "shaving at the edge" you start shaving where you would otherwise end your shaving pass, and finish shaving where you would normally begin your pass if the whiskers weren't so tough.

Slicing

When you shave the first time, you will be nervous! You will carefully and slowly move that sharp weapon down your face. And, you do well to be cautious.

Even though it is safest to shave with the blade positioned perpendicular to the direction of motion, for truly satisfying shaves you will need to add a slicing motion to your shaving passes.

Is it easier to cut a slice of bread when moving the knife straight down, or when moving the blade down while slicing back and forth? Of course, slicing back and forth dramatically improves the cutting efficiency!

The same principle applies to shaving with a straight razor. For good shaves, you will need to add a *very slight* slicing or scything motion.

But, don't worry about that now. Shave straight, with the blade moving straight forward. Add the slicing motion later, when you feel comfortable doing so.

Pressure

The pressure of the blade against the skin should almost always be light. The blade does the work unaided by anything other than the lightest pressure needed to guide it properly and to keep full control of the blade.

The one exception to the "light touch rule" is covered in the 'Beard Reduction' section below.

Shaving

Shave WTG first, followed optionally by XTG and ATG passes. However, don't attach too much importance to the 90 degree difference between these passes. These three passes are used to give a basic idea, and not to prescribe exact procedure.

Always shave WTG as your first pass. After that, you might go straight to ATG. Or, you might need to shave WTG plus 45 degrees.

Determine the best way to shave by experimentation.

It is recommended that you shave only your cheeks first. That is typically the easiest shaving location. Finish your shave with your usual shaving method. When you are comfortable shaving that section, add another section of your face.

Start slowly and conservatively. Experiment.

Beard Reduction

You might assume that a sharp straight razor will shave off your whiskers cleanly, down to the skin, with one slick pass. And, for lighter whisker areas, this might be the case. However, for areas where your beard is thicker, and/or longer, you might initially need to “beard reduce” instead of shave.

Think about mowing tall grass. If you set the mower blade too low, the engine bogs down and dies. So, you set the level of the blade high during your first “grass reduce” pass. By using multiple “grass reduce” passes, lowering the level of the blade each time, you eventually can cut the grass to the desired length.

You will follow the same technique to “beard reduce” tall whiskers to skin level.

Lay the blade flat on your face, and push the razor forward to start shaving, in the WTG direction. When you do, the blade will tend to ride up on the whiskers away from your skin. This is normal, and in fact desired to avoid cuts and razor burn. When you push the razor forward, the whiskers will be pushed over prior to being cut. The blade will be slicing through whiskers at a diagonal angle instead of the more typical 90 degree angle experienced later in the shave. For this reason, it will take slightly more forward force to cut the whiskers than normal.

To reduce the length of the beard to or almost to skin level you might need to take more than one beard reduction pass. If so, relather between passes and repeat shaving in this way as many times as required.

After reducing the length of your beard sufficiently, you can raise the razor elevation and assume a more typical shaving action during the remainder of the shave.

Safety Razor Use

You don't have to tackle the difficult beard reduction phase of straight razor shaving until you are ready. With your first few shaves, it is recommended that you shave first with a safety razor, shaving down to stubble level that way. Then, finish your shave with the straight razor.

With subsequent shaves, you can continue to shave first with the safety razor, but shaving less and less of your beard off before use of the straight razor. This allows you to learn beard reduction at your own pace.

Skin Stretching

When your whiskers stand straight up, instead of leaning over, they are easier to shave. And, you can force your whiskers to stand up straight by stretching the skin on your face with your non-shaving hand. You normally stretch the skin in the opposite direction to the shaving pass. For example, if you are shaving down your cheek you would stretch the skin, with your non-razor hand above the razor, upward while you shave downward.

Skin stretching with the non-shaving hand is very important! Work this technique into your shaving procedure from the beginning.

Tip: Stretching your skin with your non-shaving hand can be difficult when the skin is wet and slippery. Drying the skin with a washrag helps achieve traction. Applying an astringent such as alum or styptic pencils also can assist in achieving traction.

Astringents are discussed in the next section.

Astringents & Antihemorrhagics

Cuts and bleeders – small spots of blood from cutting a surface level capillary vessel - occur during shaving from time to time. Natural blood clotting will stop the flow of blood. However, there are chemicals that will stop the flow of blood more rapidly. These chemicals or chemical mixtures are called by terms such as astringents, antihemorrhagics or styptics. More commonly, you might hear these compounds referred to as alum or alum blocks or styptic pencils.

Technically, not all agents that slow and stop blood flow are astringents. Nonetheless, the rest of this section uses the term astringent in a general sense to refer to these chemicals used to stop blood flow more rapidly than natural clotting.

When shaving, keep an astringent like alum or a styptic pencil handy. As soon as bleeding starts, apply one of these astringents to stop blood flow. It is believed that stopping blood flow immediately results in a less severe cut which is easier to treat, then when the blood flow is stopped several minutes later. Even for small cuts, don't finish your pass or shave of a section before applying astringent. Do it immediately.

First Aid

Most cuts produced in shaving are slight and superficial. Even when cuts are deeper, they are typically very clean cuts and oftentimes will not scar if treated properly.

It is important for healing, and for the least chance of scarring, that blood flow be quickly stopped, and the tissue returned to its pre-cut position. Astringents can help slow and stop blood flow. Compression – applying pressure with a finger - is also extremely useful. Compression stops blood from reaching the area of the cut, and thus speeds up the clotting of blood in the injured area.

Once the blood flow is stopped, and the tissue returned to its pre-cut position, physical protection must be applied. Protection can be supplied using such things as bandages, tape or liquid bandages.

After stopping blood flow, returning skin to pre-cut position and applying physical protection, monitor the injured area for 30 minutes. Sometimes, slow almost imperceptible bleeding can occur and your skin can move out of position.

If the above steps are taken, cuts that appear fairly severe will heal and in many instances not leave scars. When seemingly minor cuts are not cared for, especially when the skin is not returned to original position, these minor cuts can leave scars much worse than anticipated.

Take care! Don't cut corners on wound care.

Most Common Mistakes

The most common shaving mistakes made by newbies are listed below.

- Shaving with heavy pressure.
- Not beard reducing in heavy whisker areas.
- Insufficient skin stretching.
- Low quality WTG pass.

The following common mistakes are not shaving-related, but are included for completeness of the list of most common mistakes by newbies.

- Stropping with heavy pressure.
- Stropping with sagging strop.

Razor Burn

New straight razor users often experience more problems from razor burn than from cuts. For this reason, a discussion of razor burn, and how to avoid this problem is included here.

The WTG pass is the most important pass. After the WTG pass, your face should feel smooth when rubbing your hand over your face in the WTG direction. And, this leads to a short discussion of the action of the blade edge while shaving.

When shaving WTG, the blade tends to ride up on the whiskers, riding above the skin to some degree. (This is why you will have to exert some pressure during the beard reduction passes, to force the razor to bite into and cut whiskers instead of ride on top of the whiskers.) Common

sense tells you that shaving whiskers that are above skin level in the ATG direction will result in the razor riding downward on the shafts of the hair.

When the WTG pass or passes is done right, the whiskers are shaved off to skin level. Subsequent XTG and ATG passes don't have anything to "ride down on", and so simply nip off the tip of the whiskers. However, if too much whisker length is exposed the razor rides down on the shaft at the same time as it cuts the whiskers.

Razor burn occurs when the razor rides down into the skin. Yes! Into the skin. When this occurs the top few layers of protective (dead) skin is actually shaved off. This leaves the more tender lower layers of skin exposed. And, that is not pleasant!

Shave WTG and do it well! If in doubt, shave WTG again. If done right, you will greatly reduce the chance of experiencing razor burn from shaving.

If done properly, you should be able to shave WTG multiple times without razor burn. If the WTG pass is done properly, and the whiskers are clipped off close enough to the skin, you should be able to shave XTG multiple times without producing razor burn. This is because the razor is moving along simply nipping off the tops of the whiskers. Because it is not riding down the shaft of the whiskers, it is not shaving off skin layers. And, if the XTG pass is done properly, you should be able to shave ATG multiple times without razor burn for the same reason.

And, finally, happy hunting for that perfect shave!

Blade Maintenance

Typically, straight razor shavers strop with a leather strop between shaves. The leather strop cleans the blade edge, and also sharpens the blade. It is recommended that the razor be fully cleaned, dried and stropped after shaving so the blade edge is clean when stored.

After stropping, coat the blade with oil, any type of oil to protect the metal from rusting. Microscopic examination has shown serious pitting from rust can occur in a very short period of time, even though not visible to the naked eye.

Stropping

Many surfaces can be used for stropping a razor. Usually, a hanging leather strop is used. The use of a hanging strop is assumed for the rest of this manual.

When stropping, hold the strop tightly. The strop should never sag. If you have trouble, lay the strop on the edge of a table while stropping.

Always use a very light touch when stropping! Barely more than the weight of the razor.

A stropping pass, (and also a honing pass), consists of an up and back motion on the strop. Place the razor on the strop at the bottom with the spine up and the blade edge down. Move the razor up the strop, with the spine leading. At the top of the strop, flip the razor over on the spine. DO NOT lift the razor or you will cut your strop!

Now, with spine still leading, drag the razor down to the bottom of the strop. This up and back stropping action is called a “pass”- a stropping pass.

Typically, you will strop 20-40 passes between shaves. This varies greatly depending on razor geometry and weight, whiskers and technique.

Stropping should return your razor to shave readiness. If not, try stropping another 10 or 20 passes. Some experimentation is required to determine the optimal amount of stropping required.

Abrasive Stropping

A freshly honed razor edge has a sharp “V” shape. The “V” shape is created by the ceramic or stone hone surface. When you strop, the blade is sharpened by the friction with the leather in the same way as a stone or ceramic hone.

But, there is one big difference between the hone and leather. The hone is rigid, while the leather is relatively soft and spongy. It has “give.”

You should always strop lightly. But, even when done properly, the blade will to some degree sink into the surface of the leather and the edge of the razor will drag along and over the leather.

The leather strop sharpens the razor. But, the “give” of the leather strop slowly rounds the edge of the razor. In other words, when you strop day by day, the sharp “V” of the edge will slowly move toward a “U” shape.

Because of this progressive rounding of the edge, stropping will eventually fail to return the edge to shave readiness. For this reason, the razor must be rehone back to the “V” shape, after which the above pattern of shaving and stropping can resume.

However, there is a quick fix for a rounded edge that is used that will resharpen the edge. This quick method is stropping on surfaces with abrasives added. The surfaces vary from newspaper to denim to balsa to leather and more. The abrasives used vary from carbon compounds to chromium oxide to ferrous oxide to diamond and more.

There is a wide variety of possibilities!

The most common abrasive and surface used is chromium oxide on leather or linen. Often strops have a linen or cloth strop and a leather strop. Chromium oxide is applied to the linen strop.

One of the best combinations is chromium oxide on balsa. (See the “Poor Man Strop Kit” at www.WhippedDog.com.) Do-it-yourself instructions for the creation of a balsa or leather strop are available on request.

Honing

A hone is a stone or ceramic whetstone of very fine grit size used to sharpen a razor edge to a “V” shape. Before and during honing, apply a lubricant to the hone.

The most commonly used lubricant is lather! Yes, the same lather you apply to your face.

There are two approaches to honing:

- Periodic
- Continual

Periodic

Periodic honing is most commonly used. You shave and strop, shave and strop, and shave and strop until the stropping no longer returns the blade to shave readiness (as described above.) Then, strop on a surface with abrasives.

After stropping with abrasives, you return to the shave and strop day by day procedure.

After some months, and typically many months, even abrasives will not return the blade to shave readiness. At this point the now U-shaped rounded blade edge will have to be honed to return the blade to the “V” shape.

Honing a razor at this point requires significant skill and some additional, and often pricey, equipment. Many straight razor shavers find it easier to send their razors out to be honed.

Continual

This periodic return of the razor to the hone is the method preferred by most. But, razors can be continually honed to perpetually maintain the “V” shape.

To me, it seems obvious that continual honing is the best process. And, using proper technique, it can be used effectively. To understand why it is not the most commonly used method, a little metal theory is required.

Hones feel smooth. But, in reality they are rough and their grit leaves scratches in a blade edge. Even worse, they produce a blade edge that is not perfectly straight, resembling on a much smaller scale the edge of a saw.

Strops treated with abrasives, and untreated strops are smoother than hones. After honing, it is necessary to “tame” the harsh hone-produced edge by stropping on these surfaces. And, it is this extra effort required for further smoothing that is the basic reason why continual honing is less often used.

If you use the continual honing method, you will have to strop until the blade is smooth. And, the only way to determine how much stropping is required is by shaving. The shave test!

For this method, it is recommended that you hone a few passes only after every shave or two. And, add maybe 30 additional stropping passes.

All that is required for implementing this method is a small finishing stone, or a fine barber’s hone, and a bit of patience.

Sharpness Tests

The best test of the sharpness of any blade is shaving! However, there are other tests that can be used to give feedback on sharpness.

The two tests that will be discussed in this manual are the thumb pad test (TPT) and the hanging hair test (HHT.)

Thumb Pad Test

Remember sharpening knives, how you tested sharpness by *lightly* dragging the thumb across the edge. Well, that is the same test you should use when testing straight razor.

At first, you won’t know exactly what a properly sharpened straight razor should feel like. With experimentation and experience you will become able to fairly accurately determine the sharpness of the edge with your thumb.

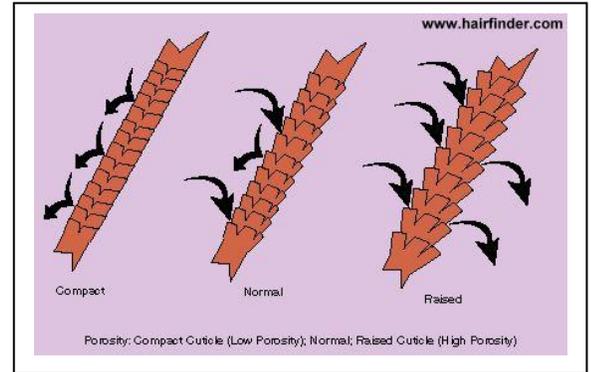
Hanging Hair Test

Many straight razor users consider the hanging hair test (HHT) to be a parlor trick of dubious usefulness. However, with proper method and procedure, the HHT can be very useful.

A few facts about hair first, though.

Hair is jagged along its length as can be seen in the picture to the right. Hair can be compared to a tall stack of hand bell globes.

The HHT makes use of these “scales” or sections. When properly sharpened, a razor will catch into one of these scales and cut the hair. If not sufficiently sharp, the edge will simply slide along the hair length without cutting the hair.



Procedure

Hold a length of hair by the tip, with the root extending past the fingers about 1/2 inch. Hold the razor under the hair, edge facing upward. Lower the hair slowly onto the razor. Never use a fast motion. Slowly lower the hair, dragging it on the upturned blade edge.

When doing this, the sharp edge will catch in one of the scales and cut the hair.

Warning

As can be seen in the picture of hair above, some hair is very tight and lacks the gaps required for successful use of the HHT. If your hair is like this, even the sharp razor will fail this test.

Some hair is thick and has large gaps. This type hair cuts too easily, and might give false “good to go” results.

But, typically, hair is quite useful for the HHT. If your hair doesn’t work well, cut a big hunk of hair from someone else’s head while they are sleeping! (Or, just check someone’s hair brush.)

Always use the same hair from the same person. Whatever hair you use must remain constant so you can with experience calibrate hair performance to blade sharpness.

Vibration & Cutting

Much more can be determined about the sharpness of a blade edge other than whether the hair is cut. When a blade is very dull, the edge is wide, too wide to drop into the gaps between the hair scales. When performing the HHT, watch the vibration at the end of the hair as it moves across the razor edge. No vibration is bad! But, as the blade edge becomes narrower and narrower during sharpening, the vibration of the hair end increases. Right before the blade becomes sharp enough to cut the hair, the end vibration can become quite vigorous!

By frequent uses of the HHT you will soon be able to fairly accurately determine the sharpness of the edge by the behavior of the hair.

Appendix A: Radio Shack Microscope

The handheld microscope sold by Radio Shack is very useful when honing. Much can be learned about what is happening while honing using the microscope that is not visible to the eye.

Ordering details for the microscope are next.

Radio Shack Illuminated Mini Microscope

<http://www.radioshack.com/product/index.jsp?productId=2179604>

catalog# 63-1313

2 AAA batteries, and magnifies 60x to 100x.

Radio Shack Lives!

Many believe Radio Shack went bankrupt, and stores closed. This is not true! They were purchased, and are still open and selling this microscope.

Other microscopes can be used other than the Radio Shack product.

Vibration While Imaging

Vibration and shake is a big problem with microscopes! Try holding the blade, or putting it down on the table and imaging it, and you will be swearing quickly. The blade will shake and move. Or, about the time you get it in focus your hand will move the blade.

The “play dough method” of blade imaging solves the problem of vibration and movement.

Play Dough Method of Imaging.

You will need some play dough, something like a jar that is flat and about 3 inches tall, and a goose neck lamp. And, of course, a handheld microscope.

Put the microscope in the 100x position (or 60x) and leave it there. You won't adjust the focus on the microscope. More later.

Roll the lump of dough like a fat Tootsie Roll. Put it on top of something about 3-4 inches high and flat. Place a goose neck lamp with bright bulb in front as your light source. (I use a 100W bulb, which is much better than the light that comes with the microscope!)

Press the blade into the side of the dough facing the lamp. When you press the blade into the play dough, the razor will probably adhere to the dough sufficiently to hold it firm. However, never remove your grip on the razor! If the razor pulls out of the dough and falls, there is a good possibility of blade damage. You should hold the microscope in one hand, and the razor in the other hand. Frequently, I will simply press down on the side of the razor at the tip to hold the razor in place. This gives me great focus control, as explained next.

Now, lower the microscope down onto the top of the blade, resting the microscope lightly on the blade for stability. If you do this right, the microscope will never come in contact with the blade *edge*, as it will always be slightly above it. At this point, the microscope will be viewing the side of the blade, and it will be out of focus. Nonetheless, you will know you are above the spine because of the gray color. Now, slowly slide the microscope down the blade. When the microscope is viewing the bevel and edge the color will quickly change to a brighter hue.

When over the edge, stop and focus the image. But, don't change the focus setting on the microscope. Rather, rotate the blade on its axis to raise or lower the blade into focus. This is done with the hand not holding the microscope, and requires very little rotation. A little practice, and you will be focusing on the edge rapidly, much more rapidly than using the focus control on the microscope.

As an aside, sometimes you will want to image the side of the blade above the bevel and edge. The same strategy is applied. Focus the microscope by rotating the blade while it is held relatively steady in the dough.

With a little practice you will be sliding the microscope along the entire length of the blade edge in under a minute.