Dry shaving fact sheet
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Introduction

Shaving has always played an important part in a man’s day. For thousands of years, men have been removing hair, using very different methods. For many men, shaving their facial hair is at the heart of the grooming process – the shaver is the key that unlocks and starts their day.

This fact sheet provides everything you need to know about dry shaving. It will help you to achieve the perfect shave.

Fact:
On average, a man has up to 15,000 hair stubble on his face every morning and spends about 1,800 hours or c. 110,000 minutes in his life shaving.
What is hair?
A strand of human hair consists of three parts: the cortex, the cuticle and the medulla. Human hairs are contained within hair follicles. The number of hair follicles is determined by genetics – after birth no new follicles are formed. The hair root, or papilla, is found at the base of the follicle, deep within the skin and is the only living portion of the structure. Hair itself is not alive - except at the root.

How does hair grow?
Once the cells that comprise hair are produced, they die and harden, forming the hair shaft. The hair shaft is then pushed up through the follicle opening toward the surface of the skin at an average rate of one-quarter inch per month.

Is there a difference between men's and women's hair?
Yes. Men's facial hairs are 50 to 60 percent larger in diameter and more irregularly shaped than women's hair, which is primarily oval-shaped.
The perfect shave is what all men strive for every morning when they bring their shavers up to their cheek for an effortless shave that will leave the skin smooth, and without irritation.

Many complex factors such as individual hair, beard characteristics, how the shaver is handled, the shaver type and the shaving environment can all play a role in achieving a close and comfortable shave. Every man is different; no two beards are the same. The unique hair length, skin type and contours of a man's face, in addition to its hair growth pattern and direction can vary significantly. In fact, even on a single face, there is great variability in the characteristics of hair.

There is further variation between different ethnic groups, age and even the season!

Number of facial hairs the average man has

- Upper lip - 900
- Chin - 2,200
- Cheeks - 4,900
- Neck - 7,000

Key facts about facial hair

- A single hair has a normal life of about 4 or 5 years. That hair then falls out and is replaced with a new hair
- Hair is only alive at the root
- Skin and hair are elastic and this elasticity decreases with age
- No beard is like any other - growth patterns differ and hair can vary substantially according to age, skin type and ethnicity
- The average growth rate for beard hair is 400μm (approx 0.35 millimetres) per day
- The absolute maximum of strokes for a full face shave is 500, the minimum is 100.
01 The science of hair

How does facial hair differ from head-hair?

- Hair never stop growing. It sheds and grows back but over time it can become thin and change colour due to reduced Melanin production.
- Seasons have a certain influence on hair regrowth – in particular, some studies have shown there is a slight spurt of hair growth in spring. Unlike head hair, facial hair has a smaller root and only grows to a certain length.

Unique contours

Unique hair growth pattern

*1 pictures are from Gillette and showing Gillette employees
*2 pictures are from Gillette
01 The science of hair

Differences between neck and cheek

Skin on neck compared to cheek:
- Softer
- Epidermis thinner
- Greater soreness
- Rougher topography

Hairs on neck compared to cheek:
- Higher hair mobility in skin
- Easier to deflect
- Lower angles to skin
- Complex hair growth patterns

* all pictures are from Gillette
Dry versus wet shaving is a matter of personal preference.

400 million men worldwide shave primarily with an electric shaver. And 50 percent of that share are dual users between wet and dry.

The reasons for choosing between a wet or a dry shave are very different. More commonly the choice is made when shaving habits are passed on from the father to son. Shaving also differs widely from region to region, in some cultures wet shaving is the predominant way of removing facial hair, while elsewhere dry shaving dominates.

**Blade principle: Wet shaving**

**Scissors principle: Dry shaving**

Wet shaving is just what the term implies – keeping your face wet with plenty of hot water before, and during, the entire shave. This is usually done with a straight razor or safety razor. With a layer of hot water between your skin and the lather, the blade skims the surface instead of dragging on it, which is the main cause of irritation, redness, and “shave bumps”.

Dry shaving usually refers to using an electric shaver. Many men prefer dry shaving because they find it more convenient since the use of water and shaving cream are unnecessary. In addition, many modern dry shavers are supplied with cleaning centres making the cleaning process effortless. Dry shaving can also be quicker and so safer than wet. Other advantages of this method of shaving are fewer cuts and for some, less skin irritation and ingrown hairs (pseudofolliculitis barbae).

**Fact:**

Globally, men spend on average, €20.4/$26.76 on blades and shavers per year.
An electric shaver consists of a set of oscillating blades, held behind a perforated metal foil which prevents them from coming into contact with the skin, which makes up the ‘shaver head’.

When the shaver is held against the skin, it enters the apertures (holes in the foil) and forms bulges. The facial hair is pushed out of the apertures by the blade where it is finally cut. Those with small apertures lead to poor feeding and closeness but better comfort, whilst large apertures provide better feeding and closeness.

What causes skin irritation when shaving?

As you shave, the blade of a dry shaver can irritate the skin and cause it to become increasingly tender and difficult to shave. This irritation produces small bumps and can make skin more prone to redness and cuts during shaving.

Stratum Corneum

Epidermis

Dermis

H & E Stained section of male beard skin
While stronger pressure on the shaver can lead to a cleaner shave, the closer interaction between the cutter and skin can lead to irritation and possible cuts. This can be minimised by reducing pressure on the shaver, but this often means a less close shave.

The following tips can help in managing razor bumps and ensuring a more comfortable shave:

- **Shave daily:** Braun research shows that shaving daily can reduce the frequency of re-entrant hairs, which cause razor bumps
- **Condition Skin:** Refresh skin after shaving to soothe and moisturise it
- **Use superior shavers:** Comfort is key for men with razor bumps. Braun's new Series 5 features the unique FlexMotionTec technology, delivering significantly more skin contact in the neck than before, for efficient shaving with less skin pressure, minimizing skin irritation
- **Keep your shaver clean:** The new Braun Series 5 5090 cc is the first shaver to feature the new Intelligent Clean&Charge Station from Braun, proven to clean more hygienically than tap water. The world’s only 4-action alcohol-based Clean&Charge Station automatically cleans, charges, lubricates and selects the cleaning program at the touch of a button - so your shaver feels like new every day
- **Change your shaver’s foil & cutter:** Braun shavers are built to last but within 18 months, your shaver will cut an average of 6,000,000 hairs. Therefore Braun recommends changing your shaver’s foil & cutter block every 18 months to maintain your shaver’s maximum performance.

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**Fact:**

One strand of facial hair grows 0.04 cm a day and 12 cm in a year.
There are two types of men's electric shavers: foil and rotary.

In some designs the blades consist of one or more rotating cylinders ('rotary'). In others they are a set of oscillating blades ('linear'). Each design has an optimum motion over the skin for the best shave. In general, for circular blades it is a circular motion and for cylindrical or oscillating blades it is up and down.

**Linear / Foil System**

Foil based electric shavers feature a fine metal foil with many holes wrapped over an oscillating cutter block. The foil stays still while the cutter block moves from side to side and cuts the hair as it enters the holes in the foil.

Braun foil shavers are designed to work with efficient sideways movements on the skin giving perfect control and precision. The foils protect the skin from irritation and are specifically designed to deliver the most thorough and comfortable shave from Braun.

**Rotary System**

Rotary based electric shavers typically feature three round cutting heads. Each cutting head consists of an outer guard featuring a number of slots, sometimes in combination with round holes. A rotary cutter then spins beneath the guard to cut the hair as it enters.
Rotary shavers easily can cut the longer hairs; however, they often don’t shave as closely as foil. Designed to work with efficient up-and-down movements on the skin, Braun shavers consist of a series of knives hidden under a rectangular metallic foil, which raise the hairs and guide them close to the vibrating knives, giving perfect control and a clean comfortable shave.

Braun’s top of the line shaving system is designed with a shaving cartridge consisting of a single pre-cutter and of two foil cartridges for providing the closest shave. Each foil cartridge is formed by a foil held within a frame and by an under-cutter.

The new Braun Series 5 provides a unique combination of power and precision for efficient shaving with less skin pressure. For precision, the new Series 5 features the new FlexMotionTec technology; dynamic Micro- and MacroMotion suspension technology that interacts with precision for significantly better skin contact even on difficult areas of the face. For power, the Series 5’s comes with a specially designed powerdome housing a high performance engine under the hood for a fast and efficient shave. With the upgraded motor delivering 20% more power, the new Braun Series 5 seamlessly combines turbo performance and outstanding design without compromising on skin comfort. The powerful triple action cutting system features twin blades and the patented UltraActiveLift, a unique oscillating power trimmer that lifts and cuts with over 290 movements per second even flat lying hairs in fewer strokes, whilst the two CrossHair blades capture stubborn hairs and even the shortest stubble.