ADVANCE HAIR DESIGNING

Level-3

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Preface

Change is the only constant.
–Heraclitus

And ever-changing are the concepts and techniques in the profession of Beauty and Wellness. Orane maintains the highest bar of standards of quality education in the national and international market, hence mandating us to constantly upgrade our curriculum. This book is to provide authoritative and useful information aimed at a beauty practitioner. In this edition of coursework of Advance Hair Designing, we have strategically simplified the language and broken down the techniques of execution of latest styles in easiest of means. This book would increase the reader's understanding of many aspects beyond one's particular area of focus and specialization. Because the book is intended to be useful in a practical sense, the material clearly informs us the practical methodology and various practices to be incorporated for every procedure.

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Part 1

COMPOSITION OF HAIR

1.1 Introduction
1.2 Hair Composition
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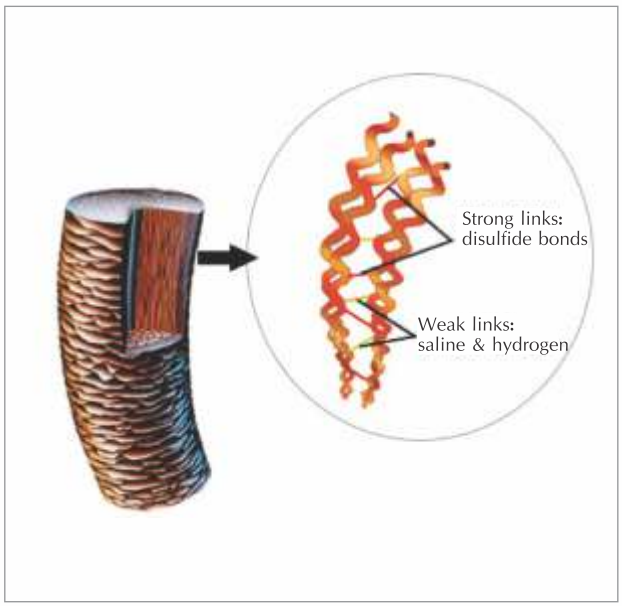
1.4 The Chemical Properties of Hair
1.5 Self Assessment Questions



In Hair (Part 1&2) Book, we have studied the ANATOMY OF HAIR. In this chapter, you will study what hair is made up of and how different chemicals or treatments effect it.

1.1 INTRODUCTION

An interest in the study of hair care originated in 1860 in London by Professor Whealer. Later in 1902, this interest in hair disorders came to be known as, "Trichology" which means the branch of dermatology that deals with the scientific study of the health of hair & scalp. It is a Greek word 'Trichos' meaning hair & 'ology' means study of.

1.2 HAIR COMPOSITION

Human hair is an appendage which grows from follicles. The hair that we cut, relax, color & style is a non-living fiber composed of keratinized protein and deep within the structure there are linkages & cross-bonds that create network of strength. Raw elements, proteins, amino-acids and bonds work together in forming hair fiber. Protein makes 91% of hair fiber.

Amino Acids: The building blocks of protein, are made up of COHNS elements (carbon, oxygen, hydrogen, Nitrogen & Sulfur).

These elements form bonds called **"side bonds"** which link together the large chain of amino acids known as the polypeptide chain. This chain forms a helix by creating spiral movements that intertwines around each other.

1.3 HAIR BONDS

There are three types of hair bonds. These are hydrogen bonds, salt bonds and disulfide bonds. Collectively, these bonds are called SIDE BONDS.

Side bonds link chains of the hair's amino acids together which attribute to the elasticity & strength of hair.

a. Hydrogen Bond

These bonds are the most flexible and are easily broken in the presence of water and heat. These account for 30% of hair strength. Hydrogen bonds allows hair to change shape temporarily and produces strong hold. For Eg: When wet hair is set in rollers until it dries, hydrogen re-bonding occurs but in new "shape". Hydrogen bonding is the reason why hair frizzes and curls falls and hair can be manipulated into various hair styles.

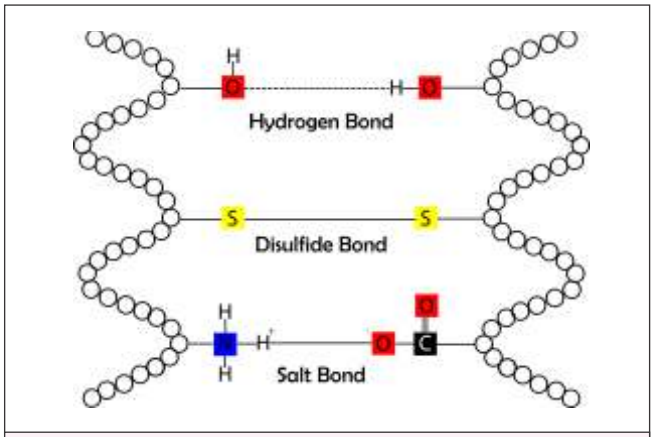
b. Salt Bonds

These bonds are abundant throughout the cortex. Salt bonds account for 1/3 of the hair's strength. They are broken by pH changes in the hair. Readjusting the hair's pH will reform and stabilize these bonds.

c. Disulfide Bonds

Disulfide bonds are also known as CYSTINE BONDS or SULFUR BOND. These are the strongest bonds and accounts for 90% of the hair's strength. The more disulfide is in hair fiber, the more curlier and kinkier the hair would be. These bonds cannot be broken by water or heat. These can be broken only by chemical agents such as perms, relaxers or color. For Eg:- If a person with curly hair wants straight hair, chemicals which can break up or "relax" these bonds would be used. After the disulfide bonds break, relaxers "cap" the bonds so that they cannot reform again. Once broken, disulfide bonds cannot be reformed.

To keep the bonds of the hair strong healthy hair pH (4.5-5.5) must be maintained so that they may maintain proper moisture retention.



Hair Bonds

1.4 THE CHEMICAL PROPERTIES OF HAIR:

Essentially composed of Keratin (Protein), hair also contains other elements and molecules that contribute to its appearance & behaviour.

a. Chemical elements of hair is

Chemicals	Percentage
Carbon	45%
Oxygen	28%
Nitrogen	15%
Hydrogen	7%
Sulfur	5.3%

b. Trace elements

Like Calcium, Cadmium, Copper, Zinc, Iron etc. are also present in hair.

c. Chemical Composition

The elements that compose the Chemical composition of hair are: keratin, water, lipids & Pigments.

1. Keratin

Keratin is a protein found in the cortex. It may be deformed with water vapor (styling). Dietary deficiency also leads to irregular Keratinization which results in structural defects in hair shaft.

2. Water

Water is a natural ingredient that supports vitamin consumption and assists in efficient and healthy hair growth. Water makes ¼ of the weight of a hair strand. Lack of moisture results in dry & brittle hair.

3. Hair Lipids

Hair lipids are made up of triglycerides, waxes, cholesterol and free fatty acids. These contribute to hair's elasticity and keep the cuticle scales attached to the hair shaft.

4. Hair Pigments

The natural hair color is the result of the pigments (melanocytes) located within the cortex. The pigments consist of melanin (colored substances) present in the hair in a diffused or granular form. These are not water soluble but they are soluble in strong acids and the color may be removed with hydrogen peroxide. Melanocytes synthesize two main types of melanin:

i. **Eumelanin :** It is dark colored and is present in black hair.

ii. **Pheomelanin :** It is lighter and is present in golden, blonde and red hair.

Thus, hair color of a person is the result of the ratio of Eumelanin and Pheomelanin along with the total number and size of pigment granules.

1.5 Self Assessment Questions

1. The study of hair care is originated in :-
   a. 1966 b. 1920 c. 1860 d. 1806
2. TRICHOLOGY is :-
   a. The scientific study of skin and nail
   b. The scientific study of the health of hair and scalp
   c. The scientific study of micro-organisms
   d. The scientific study of micro-organisms
3. Human hair is an appendages of :-
   a. Nail b. glands c. Follicles d. Skin
4. Protein makes .....% of hair fiber :-
   a. 80% b. 91% c. 30% d. 50%
5. These bonds are broken by water and heat :-
   a. Hydrogen bonds b. Salt bonds c. disulfide bonds d. Side bonds
6. The chemical bond that joins amino acids to each other is called a :-
   a. Peptide bonds b. Polypeptide bonds c. COHNS d. Cystine bonds

7. The elements that compose the chemical composition of hair are:-

   a. Nitrogen, sulfur & lipids
   b. Carbon, keratin & lipids
   c. Keratin, water, lipids & pigments
   d. Keratin, pigments, nitrogen and sulfur

8. What are the building blocks of protein :-

   a. Carbon
   b. Amino acids
   c. Sulfuric acid
   d. DNA & RNA

9. Starting with the weakest, place the bonds in order of strength :-

   a. Salt, hydrogen, peptide
   b. Hydrogen, salt, disulfide
   c. disulfide, salt, hydrogen
   d. salt, disulfide, hydrogen

10. Which type of melanin is present in golden, blond and red hair:-

   a. Pheomelanin
   b. Eumelanin
   c. Melanin
   d. Melanocytes

11. The cortex, middle layer of the hair is made up of millions of .....

   a. Color
   b. Moisture
   c. Polypeptide chains
   d. None of these

Part 2

HAIR ANALYSIS

2.1 Introduction
2.2 Growth Pattern
2.3 Self Assessment Questions

2.1 INTRODUCTION

All successful salon hair services must begin with analysis of the client's hair type and its present condition in order to determine the results that can be expected from the service. Since different types of hair react differently to the same service, it is essential that a hair analysis must be done prior to all salon services. Hair analysis is performed by comparing and analysing hair textures, porosity, elasticity and density, length, moisture level of hair, growth pattern and type of hair. By analyzing, a professional is able to make good choices when it comes to the styles and hair services.

a. TEXTURE

Hair texture depends on thickness or diameter of the individual hair whether it is fine, medium or thick.

1. Fine Hair

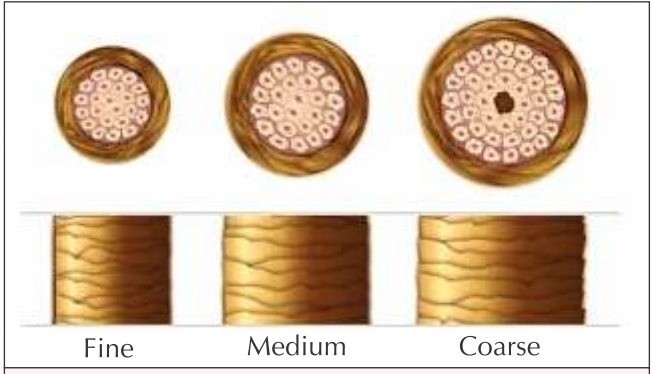
Fine hair is fragile. It has two layers-cortex & cuticle. It is hard to keep fine hair in style and its gets oily quickly. Too much product will weigh it down and it breaks easily.

2. Medium Hair

These are thicker than fine hair. It has two layers-cortex & cuticle but may also have third layer (medulla). Medium hair can keep hair styles better, looks thicker and is more resistant to breaking.

3. Thick Hair

It has all the three layers-cortex, cuticle and medulla. Thick or Coarse hair has the largest diameter. It is stronger than fine hair. Thick hair gives the impression of a fuller head of hair & it can keep a hair do well. It usually requires more processing then medium or fine hair and may also be more resistant to heat, styling products and hair color. It also takes longer to dry and can get frizzy in humid weather.



Texture of Hair

b. POROSITY

Porosity refers to "an ability of hair to absorb and retain the moisture". It is affected by the flexible outer hair layer called the cuticle, which determines how easily moisture and oils pass in and out of the hair. Knowing hair's porosity helps to choose the right products to keep hair well moisturized, supple, strong & shiny.

1. High Porosity

It means that due to hair's raised cuticle layer, it can absorb too much moisture and also leaks out moisture so its retention is hampered. In most cases, this is generally found in damaged hair. One of the characteristics of high porosity hair is it lacks shine and luster.

2. Low Porosity

It is found in hair that is resistant to absorbing moisture. This is because the cuticles in this case are extremely compact and overlapping. But once the moisture is in it does not leak out, so this hair type has good retention abilities. Low porosity hair often looks very healthy but in a lot of cases it lacks elasticity.

3. Normal Porosity

The hair cuticles are compact but not to an extreme like in the case of low porosity hair. Normal porosity hair absorbs and retains moisture adequately. The hair looks healthy, full of bounce and has elasticity.

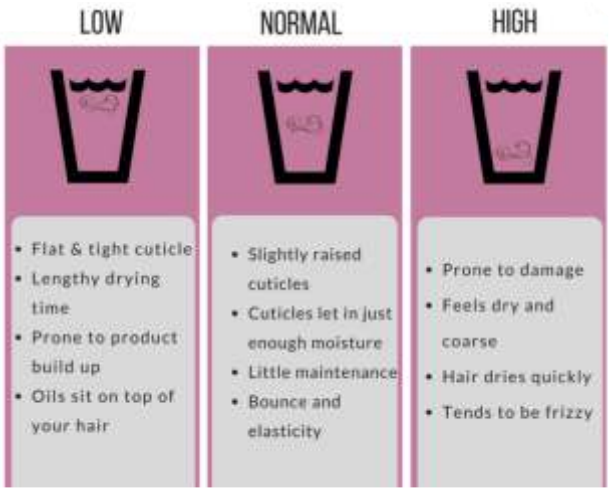
POROSITY TEST

There are two methods to find out the porosity of hair:

1. The slip 'n' slide test

Take a strand of hair and slide your fingers from the end towards the scalp. If it ruffles or feel bumpy, it means that the cuticle is lifted and hair has high porosity and can absorb moisture. If fingers slip smoothly than its low porosity hair.

2. The float test



Hair Porosity Float Test

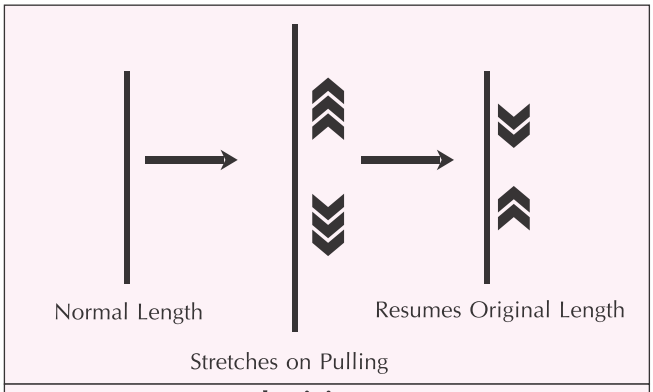
c. HAIR ELASTICITY

Hair elasticity is an ability of hair to stretch and return to its original length without breaking. Hair elasticity comes from the side bonds in the hair shaft. Hair with low elasticity is brittle and breaks easily and may not be able to hold the curls from thermal styling

or permanent relaxing. On the other hand, hair with good elasticity have tendency to hold any styles whether it is thermal or relaxers.

ELASTICITY TEST

To test of elasticity of hair, select strands of hair from four different areas on the head. The hair should be wet. Normally, dry and curly hair will stretch about one-fifth of its normal length without breaking. Grasp half a dozen strands from the crown area and pull them gently. If the hair appears to stretch, it has elasticity.



ElasticityTest

d. Moisture Level

Moisture is a important part for hair. If the hair lack luster, it means it has acute lack of moisture. Another sign of lack of moisture in hair is static electricity. Hair needs 15 to 17% of water. Any pressure put on dry hair will result in breakage.

Moisture Content= Strength of hair coloured

e. Types of Hair

It is important to know about the hair type as it helps a professional to understand how susceptible the hair is to damage while using hair styling or chemical products and how to care for the hair properly.

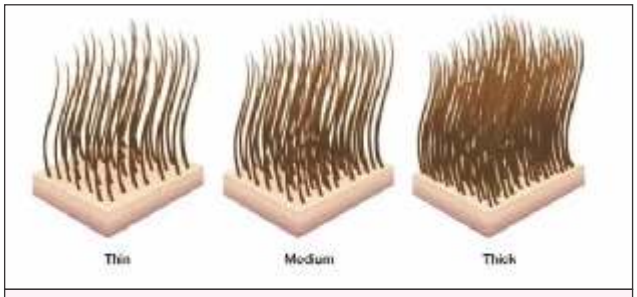
	Type 1 : Straight
1a Straight (Fine/Thin)	Hair tends to be very soft, shiny, oily, poor at holding curls but difficult to damage.
1b Straight (Medium)	Hair characterized by volume and body.
1c Straight (Coarse)	Hair tends to be bone-straight and difficult to curl. Common in Asian Women.
	Type 2 : Wavy
2a Wavy (Fine/Thin)	Hair has definite "S" pattern and is usually receptive to a variety of styles.
2b Wavy (Medium)	Can tend to be frizzy and a little resistant to styling.
2c Wavy (Coarse)	Frizzy or very frizzy with thicker waves; often more resistant to styling.
	Type 3 : Curly
3b Curly (Loose)	Curly hair that usually presents a definite "S" pattern and tends to combine thickness, fullness and body.
3b Curly (Tight)	As 3a but with tighter curling like a spiral.
	Type 4 : Kinky
4a Kinky (Soft)	Hair tends to be very fragile, tightly coiled and can feature curly patterning.
4b Kinky (Wiry)	As 4a but with less visible (or no) curly Patterning.
4c Kinky (Wiry)	As 4a and 4b but with almost no defined curl pattern.

f. DENSITY

Hair density refers to how much hair you have. It is a measure of how many strands are living on your head. Density may be low, medium or High. One can have high density with fine strands and low density with thick / medium strands.

DENSITY TEST

Let the dry hair hang loose. If its difficult to see scalp, hair is high density and if only some of the scalp is seen, its medium density and if scalp is seen easily, it is low density hair.



Hair Density

2.2 GROWTH PATTERN

It is important when shaping and styling hair to consider the hair growth pattern. Hair follicles do not usually grow perpendicular to the scalp. Most hair follicles grow at different angels and in a specific direction. The angle at which the hair follicles grows determines the direction in which the hair will fall and ultimately the pattern that the hair makes on the head. The most common hair growth pattern are:-

a. Widow's Peak

A widow's peak is hair that forms a point at the hair line at the top of the forehead. While recommending a cut to such client, consider a slightly longer fringe as this will avoid hair sticking straight up.

Widow's Peak

b. Crown Whorl

It is hair that forms in a circular pattern as on the semi-crown area. While giving a cut, follow the direction of the hair and leave the hair a bit longer so that the hair will be flat and not spike out.

Crown Whorl

c. Nape Whorl

It is found at the nape of the neck. In this, hair grow upwards or towards the center, either both sides

Nape Whorl

or one side of the head. When cutting a nape whorl, either leave hair long so that it is heavy enough to lay flat or tapered very short so that hair growth pattern is shaped.

d. Cowlick

A cowlick is found on the hairline at the front of the head. Some cuts will be unsuitable if the cowlick makes a strong pattern. If cowlick is present, hair should not be cut too short as it will bounce and straight up from the head.

Cowlicks

2.3 Self Assessment Questions

1. Which hair texture has the largest diameter :-

   a. Fine hair b. Medium hair c. Thick hair d. All of these

2. Porosity of hair is affected by the which layer of hair :-

   a. Cuticle b. Cortex c. Medulla d. All of these

3. The SLIP 'N' SLIDE test is to check .....of the hair :-

   a. Elasticity b. Porosity c. Density d. Length

4. If the hair is brittle and breaks easily, then it has :-

   a. Low elasticity b. Medium elasticity c. High elasticity d. None of them

Part 3

HAIR CUTS

3.1 Introduction
3.2 Client Consultation
3.3 Directions
3.4 Face Shapes vs Hair Cuts
3.5 Advance Female hair Cuts
3.6 Male Hair Cuts
3.7 Self Assessment Questions

3.1 INTRODUCTION

The perfect haircut is one that complements one's lifestyle and flatters the face. To achieve this, the stylist requires knowledge of hair maintenance, styling face shape and techniques for cutting of hair. He should able to judge the hair texture, type and growth pattern as all these factors effects the shape of hair cut considerably.

3.2 CLIENT CONSULTATION

The foundation of great haircut is the consultation. It sets the tone for the experience, gives the client confidence and the stylist direction. Without a consultation, a stylist and client cannot stay on the same page. There are several elements to a consultation that make it effective:

a. Always introduce yourself to the client and give him the chance to introduce himself to you.

b. Ask about client's present hair style – "So tell me what you like and don't like about you hairstyle." This helps stylist to give client a result that is in response to their feelings about their hair.

c. A good stylist needs to be able to assess all the elements like hair's growth pattern, cowlicks, texture of hair etc. and explain to the client how these factors effect the haircut. Educating the client about his/her haircut is a critical part of the consultation.

3.3 DIRECTIONS

In part I (Basic Hair Book) you have learnt about the ELEVATIONS (Vertical aspect of silhouette). In advance book, we will explore OVER DIRECTION. (Horizontal aspect of the silhouette)

a. Over direct forward

It creates length and density towards the back of the head.

b. Over direct back

It creates length and density towards the front of the head.

c. No over direction

In this, hair is cut without moving it forward or backward allowing it to follow the natural head shape.

d. Over direct to a stationary guide

All the hair is directed to and cut at the point of a stationary guide. The guide never moves.

e. Over direct to a previously cut section

All the hair is cut with a traveling guide. Each new section becomes the point of cutting for the next section which results in a soften weight buildup.

3.4 FACE SHAPE VS HAIR CUTS

A client face shape is determined by the position of the facial bones. A good way to determine face shape is to pull all the client hair completely off the face, using a towel or ponytail and observe the client face in mirror. There are six basic face shapes:

a. Oval Face Shape:-It is the most desirable and the most flattering face shape. People with this face shape can wear almost any style. The oval face is about one and a half times longer than its width across the brow. The forehead is slightly wider than chin.

Recommended: For an oval face shape, hair should be cut flat along the top and vertical or the sides, leaving the corners full. Hair should be cut to the shape of the head, rounding down the back and then straight to the neckline.

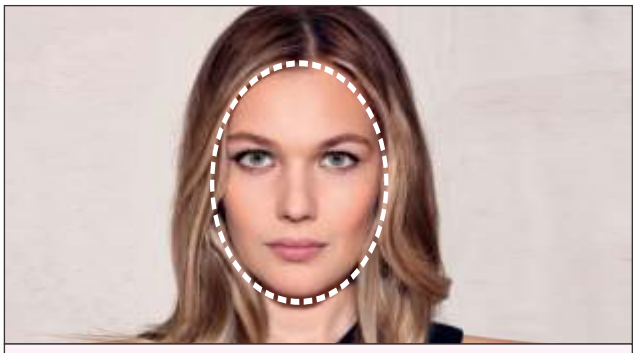
b. Round Face shape:- Round hairline, round chin line, wide face.

Recommended:- Create the illusion of length by creating height on top and the corners. Cut hair vertically on the sides.

Round Face Shape

c. Square Face shape:- Wide at the temples, narrow at the middle of the face, and squared off at the jaw.

Recommended - Create height at the crown and round the corners to decrease hard angles and give the appearance of length. Keep hair full on sides.

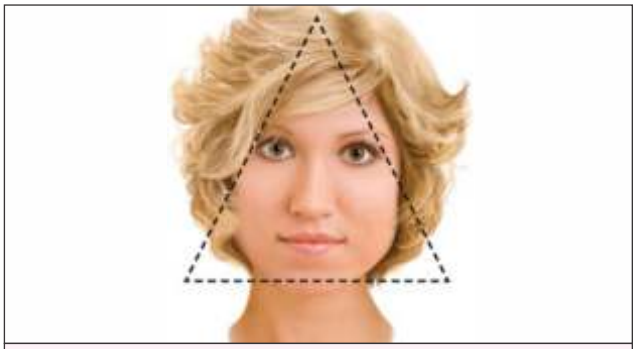


Oval Face Shape

Square Face Shape

d. Triangular Face Shape:-Narrow forehead, wide jaw and chin line.

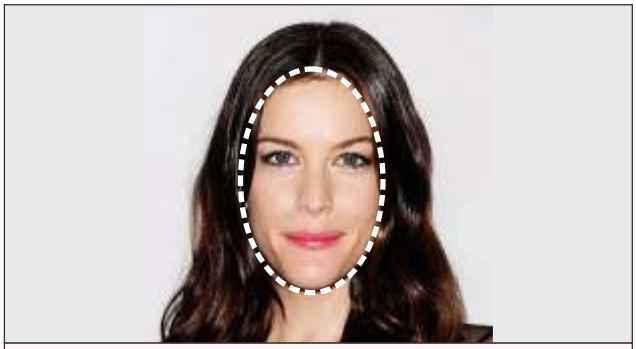
Recommended:- De-emphasize the corners of the hair while keeping fullness at the sides. Round the bottom to draw attention way from the forehead and toward the chin. Keep height at the top while cutting corners shorter and leaving the sides full.



Triangle Face Shape

e. Long Face Shape:-Long, narrow face with hollow cheeks.

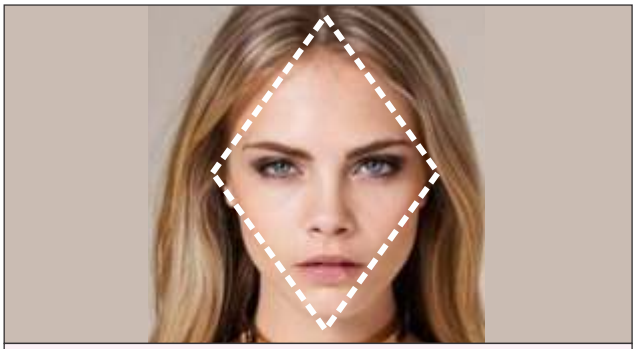
Recommended:- For long face, hair cut should be done so that the face appears shorter. Cutting with the growth pattern, leave hair flat on top and full on the sides, while rounding to the contour of the head. Keep hair long in the front to come down on the forehead giving the illusion of a shorter face.



Long Face Shape

f. Diamond Face Shape: Narrow forehead, extreme width through the cheekbones and narrow chin.

Recommended:- Increase the volume in hair cut across the jawline and forehead. Keep the hair close at the cheekbone line to create an oval appearance.



Diamond Face Shape

3.5 ADVANCE FEMALE HAIR CUTS

a. UNIFORM LAYERS

Texture:	normal to wavy
Length:	Long
Degree:	45 degree
Holding:	vertical
Cutting Technique:	point Cutting

Uniform Layers Haircut

b. GRADUATION HAIR CUT

Texture	normal to wavy
Length	shoulder length
Degree	90 degree
Holding	vertical
Cutting Technique	point Cutting

Graduation Haircut

c. BASIC CONCAVE

Texture	normal to wavy
Length	long length
Degree	over direct
Holding	horizontal or as per hair stream
Cutting Technique	point Cutting

Basic Concave Haircut

d. LONG SHAKE

Texture:	normal to wavy
Length:	long length
Degree:	overdirect
Holding:	over directed to guideline and as per hair stream
Cutting Technique:	point Cutting

Long Shake Haircut

e. RAZOR CUT

Texture:	normal to wavy
Length:	long length
Degree:	0, 45 degree
Holding:	diagonal
Cutting Technique:	slithering Cutting

Razor Haircut

f. MULTI LAYERS CUT

Texture:	normal to wavy
Length:	medium to short length
Degree:	0, 45, 60, 90
Holding:	vertical holding, Twist for 90 degree

Cutting Technique: point cut at its particular stream

Multi Layers Haircut

g. TRIANGULAR GRADUATION

Texture: normal to wavy

Length: shoulder length

Degree: 20,45 and 90 degree

Holding: vertical and horizontal

Cutting Technique: point Cutting

Triangular Graduation Haircut

h. DISCONNECTED CUT

Texture: normal to wavy

Length: shoulder length

Degree: 0 and 90

Holding: vertical

Cutting Technique point Cutting

Disconnected Haircut

i. A –LINE BOB

Texture: normal to wavy

Length: neck length

Degree: 0 degree

Holding: diagonal forward

Cutting Technique: club Cutting

A–Line Bob Haircut

j. ROUND TEXTURED BOB

Texture: normal to wavy

Length: short length

Round Textured Bob Haircut

Degree: 0, 45degree

Holding: horizontal diagonal

Cutting Technique: Club Cutting

k. STEPPED BOB

Texture: normal to wavy

Length: neck length

Degree: 0, 60 degree

Holding: Vertical

Cutting Technique: Point Cutting

Stepped Bob Haircut

3.6 MALE HAIR CUTS

1. Flat Graduation Male Cut (Crew Cut)

In this haircut, hair is cut or styled to look flat and level across the top of the head. Flat tops are usually taken short on the back & sides, narrowing and elongating the shape of the face. This cut can be achieved by several techniques. The easiest way to do is to made the hair stand with a dryer. Than spray & shape it with hair clippers.

Crew Haircut

2. Clipper Guard Hair Cut

Clipper Guards refer to the clips that attach to electric hair trimmers. Most hair clippers came with a set of 8 guards sizes and represent the length of hair that will be left when trimmed.

a. Number 0 Hair Cut

No guard is attached to the clippers. It is the shortest hair cuts. A zero is basically a shaved head.

b. Number 1 Hair Cut

It leaves 1/8" of hair on the head. It is used for faded sides or a very short cuts. Scalp is visible in this cut.

Number 1 Hair Cut

c. Number 2 Hair Cut

It is the most popular clipper sizes. It is1/4" and is used for faded sides. Scalp is not visible in this cut.

Number 2 Hair Cut