

YEAR 3

HAIRDRESSING



CAUCASIAN
LEARNER GUIDE

CAUCASIAN

Content YEAR 3

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Chapter 1

Preparing for work



Unit 1: Daily salon maintenance

LEARNING OBJECTIVE:

When you have finished this chapter, you should:

- ♥ Know the job roles that people within the hair industry
- ♥ Know the working patterns of people working within the sector
- ♥ Know the career opportunities available to you in the future
- ♥ Understand the services associated with hairdressing and barbering

KEY TERMS:

Beard/Moustache Trimming Cutting Salon Blow-Drying
Setting Hair Up Colour Correction Highlights Shaving Colouring
Lightening Perming Shampooing Consultation Relaxing
Styling Lotion Botox Hair Shaft Cuticle Layer
Cortex Layer Hair Extensions

CAREERS:

- ♥ Cleaner at a salon
- ♥ Receptionist
- ♥ Shampooist
- ♥ Operator
- ♥ Stylist
- ♥ Colour Technician
- ♥ Junior hairdresser
- ♥ Hairdresser
- ♥ Supervisor
- ♥ Manager
- ♥ Salon owner
- ♥ Hairdressing consultants
- ♥ Image and deportment advisor
- ♥ Retail consultants
- ♥ Store merchandiser
- ♥ Stylist on board a Cruise Liner
- ♥ Field technician
- ♥ Teacher
- ♥ Trichologist (hair doctor)
- ♥ Salon owner
- ♥ Assistant Hairdresser

SKILLS DEVELOPMENT:

- ♥ Organisational skills
- ♥ Decision making Social skills
- ♥ Communication skill
- ♥ (verbal and non-verbal)
- ♥ Teamwork Skills
- ♥ Respect
- ♥ Integrity
- ♥ Positive attitude
- ♥ Enthusiasm

ENTREPRENEURSHIP:

- ♥ Selling products
- ♥ Promotional day
- ♥ Promote new services
- ♥ Offer of updated techniques

Introduction to preparing for work

A visit to our favourite hair or beauty salon is something that we all look forward to, whether for a regular appointment or a special occasion making us look and feel fantastic, we take for granted that our hairdresser will adhere to the highest standards of health, safety and hygiene. That not only means maintaining their own personal hygiene, but also doing their part to keep their salon safe and hygienically clean, so clients leave with nothing more than a healthy glow.

Unit 1: Daily salon maintenance

From styling hair and haircuts to permanent wave and colouring service, hair stylists of all types have a considerably 'hands-on' approach to their jobs. Which means that the potential for skin-to-skin cross-contamination, as well as infection from contaminated equipment or surfaces is high – unless of course, effective health, hygiene and cleanliness practices in hair salons are in place and followed by all staff.

Where are the health and safety risks in hairdressing and beauty salons?

From chemicals used within treatments, to bacteria from the skin or substances such as nail filings, skin particles and hair clippings, the potential risks to health and safety in hair and beauty salons are numerous. Areas that employees should be particularly aware of include:

♥ Skin-to-skin contact:

. Hairdressers should wash and dry their hands thoroughly before and after each client or treatment. Where possible, wear disposable gloves, to reduce the risk of contact dermatitis during wet working, such as hairdressing. Any obvious cuts or abrasions on the skin covered

♥ Tools and equipment:

To prevent-cross contamination, clean tools and equipment for every client, from fresh towels to hygienic scissors or sterile spatulas. Use appropriate cleaning products to clean and disinfect your equipment – such as surgical spirit with a minimum concentration of 70% alcohol, an autoclave, or a liquid or spray disinfectant used as directed.

♥ Work surfaces:

Viruses and common bacteria can live on surfaces for over 24 hours. Regular cleaning and disinfecting of salon surfaces, including couch beds and workstations, minimises the risk of infection. You can also use towels and disposable paper coverings to help contain any substances or prevent skin-to-skin contact with surfaces.

♥ **Product containers:**

Never use fingers to dispense products from jars or pots, as this can cause bacteria to form and cross-contamination to take place. Instead, a sterile spatula or tool used to dispense only the amount required for the treatment.

♥ **Floors:**

Floors regularly swept throughout the day and mopped with a commercial floor cleaner at closing. To prevent the spread of infection (such as verrucae or athlete's foot), at no time should clients be permitted to walk barefoot in the premises, except in showers, saunas and steam rooms, or when laying on the couch or laying/standing in the sunbed.

Hair Salon Cleaning Checklist



Have you found yourself to look around it recently only to realize it is time some tidying up and cleaning around the salon? When it comes to cleaning any hair salon, the first thing you will need on hand is a quality hair salon-cleaning checklist that is ready to go and help get the job done right. To help ensure your salon cleaned from top to bottom without a single spot missed, we have put together this hair salon-cleaning checklist to help you!

Activity 1

Name three things you would do every day

Hair Salon Cleaning Checklist

- ✓ Sweep all hair from underneath and around all salon hair stations.
- ✓ Sweep and mop all floors throughout the entire salon.
- ✓ Wipe down and sanitize all salon chairs.
- ✓ Windex all salon and hair station mirrors.
- ✓ Wipe down and tidy up the reception desk and entire reception area.
- ✓ Deep clean and sanitize all hair styling equipment and tools.
- ✓ Wipe down and sanitize all tables, counters, and surfaces.
- ✓ Windex the front salon shop windows.
- ✓ Throw out and empty all trash bins – done daily.
- ✓ Replace all paper products throughout the salon daily, this includes, but is not limited to: toilet paper in restrooms, tissue, paper towels, etc.
- ✓ Deep clean all restrooms in the salon, this includes, but is not limited to:
 - ♥ Sweeping and mopping bathroom floors
 - ♥ Windex bathroom mirrors
 - ♥ Clean and sanitize all toilets
 - ♥ Replace all restroom paper products and toiletries: toilet paper, paper towels, soap, etc.
 - ♥ Wipe down and sanitize ALL bathroom surfaces:
 - ♥ Sinks, faucets, and faucet handles
 - ♥ Toilet paper and paper towel dispensers/holders
 - ♥ Door handles
 - ♥ Bathroom stalls
 - ♥ Bathroom counters Etc.
- ✓ Tidy up the hair salon customer waiting area, which includes, but is not limited to:
 - ♥ Sweeping and mopping all hard floors
 - ♥ Vacuuming and cleaning of any area rugs and/or carpet in the waiting area
 - ♥ Tidying up and stacking neatly all magazines, books, etc. you may have provided to guests while they wait
 - ♥ Wiping down and sanitizing all chairs, tables, and surfaces in the waiting area
- ✓ Dust all salon surfaces.

Although all items on a salon-cleaning checklist are going to vary from salon to salon, a general list of cleaning tasks to go by .a Hair salon that's not only looks nice, but that is kept clean on a consistent, daily basis, is essential to the success of any salon. This is not important for success only, but also considered more important and vital to the health and safety of your employees, as well as your customers than one would think.

CHAPTER 2

HEALTH SAFETY AND HYGIENE



Unit :1 Covid-19

Unit :2 Dressing and behaving professionally

Unit 3 Maintain effective and safe methods when performing technical services

LEARNING OBJECTIVES:

When you have finished this chapter, you should:

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- * Field technician
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ENTREPRENEURSHIP:

- * Selling products
- * Promotional day
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Introduction to Health and safety

The ways in which you and your work colleagues go about daily duties have a direct effect upon the general health and safety of every one with in the workplace. poor hygiene or preparation not thinking for others or cleaning up properly and not noticing potential hazards an all have a disastrous impact on the safety and wellbeing of others

You should be able to both identify and reduce risks within the working environment and these two factors addressed in this chapter. It looks at the types of hazards that you might find in your work and the second looks at how you should go about eliminating them.

Unit 1 Covid 19

“CO” stands foe corona, “VI” for virus, and “D” for disease. Formerly, this disease referred to as “2019 novel coronavirus” or “2019-nCoV”.

The COVID-19 virus is a new virus linked to the same family of viruses as Severe Acute Respiratory Syndrome (SARS) and some types of common colds.

What is covid?

The 2019–20 corona virus pandemic is an ongoing pandemic of corona virus disease 2019 (COVID-19) caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2).

What are the symptoms of the corona virus?

- * Common symptoms:
- * Fever
- * Dry cough
- * Tiredness
- * Less common symptoms:
- * Aches and pains
- * Sore throat
- * Diarrhoea
- * Conjunctivitis
- * Headache
- * Loss of taste or smell
- * A rash on skin, or discolouration of fingers or toes



Virus transmit ion

- * Current evidence suggests that transmission of SARS-CoV-2 occurs primarily between people through direct, indirect, or close contact with infected people through infected secretions such as saliva and respiratory secretions, or through their respiratory droplets, expelled when an infected person coughs, sneezes, talks or sings.

Prevention

- * Clean your hands often. Use soap and water, or an alcohol-based hand rub.
- * Maintain a safe distance from anyone who is coughing or sneezing.
- * Wear a mask when physical distancing is not possible.
- * Don't touch your eyes, nose or mouth.
- * Cover your nose and mouth with your bent elbow or a tissue when you cough or sneeze.
- * Stay home if you feel unwell.
- * If you have a fever, cough and difficulty breathing, seek medical attention.



Unit :2 Dressing and behaving professionally

Personal appearance

The effort we put in to get ready for work reflects our pride in our work and that we care about what we do. Sometimes we have to wear things that we would not wear if we had personal choice, but professional standards and salon image must come first.

Clothes Work wear should be practical and easy to maintain. Clothes should be easy to clean and iron if necessary and made of suitable fabrics. They should not be tight and restrictive which would make working harder and more tiring they may also make you perspire and increase body odour



Shoes Hairdressers and barbers should wear flat or low-heeled shoes that enclose the feet (cover the toes) we spend most of our feet so comfortable shoes will help prevent backache

Hair As hair professionals our hair is an advertisement for our skill in the salon if your hair is a mess think about how that will affect your client's confidence in you. Your hair should always look good and well styled to reflect the salon image your hair should always be clean tidy and representative of the place where you work



Make –up if you wear make up to work make sure that you check with your salon supervisor to see what is acceptable and appropriate

Nails You should have similar length short neatly manicured nails.

Jewellery Wear only a minimum of jewellery while you are working. It can harbour germs and tangle in their hair.

Personal health hygiene and behaviour

Hands and nails make sure your hands are very clean. Dirty hands are not only unattractive but also spread germs and could cross-infect your clients. Your hands are very important they are the way you earn a living so look after them. Keep your nails clean especially underneath and try to keep them neatly manicured and not too long. Check them regularly for any disorders.

Always wash your hands before work after using the toilet and coughing or sneezing. This will reduce the risk of spreading infection to others. Use moisturizing creams regularly to help replace the moisture lost by constant washing. When you shampoo for example, it may be helpful to apply moisturizing cream. If the skin on your hands dries out, it cracks and make sores. This may prevent you from working until it heals.

Some people may suffer from dermatitis from exposure to all the chemicals used in the profession. If your hands continue to be, sore and do not heal consult your doctor in some cases a person's sensitivity could mean that they have to give up their job

Body The body has sweat glands all over its surface that are used to help control the body temperature by secreting moisture out on to the surface of the skin when you are hot This provides a good breeding ground for bacteria which in turn causes body deodorants antiperspirants or similar.

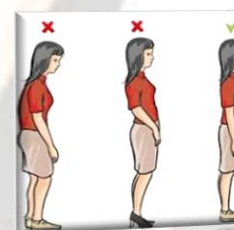
Mouth Unpleasant breath can be offensive to others by all sorts of things we have eaten like onions or garlic which are usually temporary by smoking stomach upsets or other problems such as pieces of food that are stuck between teeth and then decay. As you will be working very close to the client, you easily not smoke at all when you are duty



Feet Like our hands our feet are important because we do most of our work standing, we have looked at the sort of shoes we wear and must make sure they fit properly. You should also wash your feet regularly some people sweat a lot and this can be cause foot odour. Keep your toenails short so that they do not become painful during long periods of standing during the day

Personal wellbeing to work successfully as a hairdresser or a barber you will need energy and stamina. Having a good health routine will give you that energy and stamina. The first aspect of that routine would be a well-balanced diet one that is healthy and nutritious You should take regular exercise perhaps try playing sport or dancing You should also get sufficient sleep and relaxation to help you recover from the stresses of the working day

Good posture is necessary as hair professionals we stand for long periods. Always stand with the back straight your feet apart and your weight evenly distributed on both legs. Never stand with all your weight on one leg and pelvis tilted, you will get backache and over a long period causes varicose veins.



The care and attention you pay to how you present yourself for work is very important to your success and progress. Whatever job you do make sure you look the part. Being thorough about your personal hygiene will ensure that you do not cause offence to anyone else either to your clients or your colleagues. It can be embarrassing to be told you have a hygiene problem the best way to avoid this is to make sure you do not have to be told

Personal behaviour the salon or barbershop is professional environment and you are on show. The way that you react to others and respect you, show will be apparent by not only what you say but also how you say it. Treat others with a mutual professional respect regardless of what you think or would like to say. Always conduct your work in a safe professional manner never fool around as this could put others at risk by your actions or negligence

Maintain effective and safe methods of working when cutting hair

Your salon will have a procedure of gowning and protecting client from spillage or hair clippings. Methods for preparing tools and equipment and the expectation for personal standards in relation to technical ability and hygiene.

Make sure that the gown is on properly and fastened around the neck. It should cover and protect their clothes and come up high enough to cover collars and necklines.

Don't make the fastening too tight but it should be close enough at least to protect the client's clothes and stop hair clipping from going down their neck which is both uncomfortable whilst they are in the salon and irritating if they are returning to work or doing these things for the rest of the day.

Make sure the hair is clean

You cannot cut hair well if it is loaded with hairspray or it has product build-up. If the client uses a lot of finishing products on their hair, make sure that this is thoroughly washed out before you start. The quality of the finish that you can achieve upon the hair directly related to the freedom needed to complete the job without the hair locking together with grease and gum. The hair should comb easily and freely during sectioning so that you can achieve the correct holding angles and cutting angles without tangles and binding.

Adjust the working position and height

Client positioning has a lot to do with your safety too. If a client is slouched in the chair, they are a danger not only to themselves but to you too as they put unnecessary pressure on the spine and you will not be able to start up properly causing fatigue or risk of injury from poor posture.

Salon chairs designed with comfort and safety in mind your client should be seated with their back flat against the back of the chair their legs uncrossed and the chair at a height comfortable for you to work. You need to be able to get to all parts of the head. Do not be afraid of asking the client to sit up. It is in their best interest too!

Preparing the tools and equipment

Get your own scissors, clippers, combs and sectioning clips ready beforehand that it doesn't mean as the client arrives in the chair from the basin! You must be prepared your tools and equipment must be hygienically clean sanitised and safe to use. Remove your combs from the Barbicide or steriliser rinsed, dried, and put neatly at your workstation.

Client Preparation

- Stages of preparation are:
- Protect the client with suitable gown and towels
- Agree suitable products
- Ensure client comfort



HOW DO YOU PREPARE YOUR WORK AREA?

Ensure dress out is clean, tidy and sterilised

Ensure your chair is clean and free from hair

Collect the suitable tools needed and ensure they have been sterilised

Collect the suitable products for the client's hair



Preventing infection

A warm humid salon can offer a perfect home for disease-causing bacteria. If they can find food in the form of dust and dirt, they reproduce rapidly. Good ventilation however provides a circulation air current that will help to prevent their growth. Therefore, it is important to keep the salon clean dry and well aired at all times

Sterilisation means to destroy all living organisms.

Different devices use different sterilisation methods based on the use of *heat, radiation or chemicals*.

- * **Ultraviolet radiation** - Is a cabinet that has ultraviolet light in and sterilise with the heat it produces
- * **Chemical sterilisation / disinfectants** - This is the most effective form of salon disinfectant is achieved by a total immersion of the contaminated implements into a jar of fluid such as Barbicide or Savlon
- * **Autoclave** – The autoclave provides a very efficient way of sterilising using heat.



Any used materials should be disposed of and not left out the side failure to do so is unprofessional and present a health hazard to others. You need to work in an orderly environment you need to have the materials that you need at hand and the equipment that you want to use in position and ready for action.

Keep an eye on the clock you must remember that you need to be working to time and that means providing the service in a commercially acceptable time.



Maintain effective and safe methods of working when relaxing

Salon procedures for preparing the workstation and client

- * Assemble all material before starting the relaxing process
- * After seating the client ask her to remove her earrings and necklace
- * Look for any scalp problems or sicknesses
- * Place a clean towel over her shoulders, then the cape
- * Fold the towel in the collar

Adhere to safety precautions for a relaxing service

- * Use a pair of gloves
- * Select relaxer strength according to the hair texture, results of hair and scalp analysis Apply barrier cream according to manufacturer's instructions
- * Do not use heat it will open pores of the hair and cause scalp irritation
- * Use a protective base e.g. (barrier cream)
- * Apply relaxer away from the base of the hair (near scalp) the natural heat speeds up the process
- * Apply last to the ends of the hair as it is porous

Health and safety

In all relaxing processes you must take great care to prevent damage to your client's hair or skin. You must ensure that the client is adequately protected throughout

Salon Health & Safety

ENHANCED HYGIENE MEASURES

All our staff have undertaken proper hygiene training according to [enter specific details here]

Your health and safety are our top priority

1. Staff are required to wash hands frequently (after each client and as required) according to the World Health Organization guidelines
2. Hand sanitizer provided to patrons upon entrance into the salon
3. Masks and other Personal Protective Equipment will be worn by staff during treatments
4. Physical distancing wherever practically possible



**Protective
gloves must
be worn**

Chapter 3

Consultation and advice



Unit 1: Factors influencing services

Unit 2: Identify what the client wants

Unit 3: Analyse the hair, skin and scalp

LEARNING OBJECTIVES:

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ENTREPRENEURSHIP

CAREERS:

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- Receptionist
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- Operator
- Stylist
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- Hairdresser
- Supervisor
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- Respect
- Integrity
- Positive attitude
- Enthusiasm

ENTREPRENEURSHIP

- Selling products
- Promotional day
- Promote new services
- Offer of updated techniques

Introduction Consultation and advice

Consultation is arguably the most important service provided in hairdressing salon. This is where you sit down with your client and discuss what will be done and your result will be the plan to follow for the services that is provided.

TERM1

Unit 1 Factors influencing services

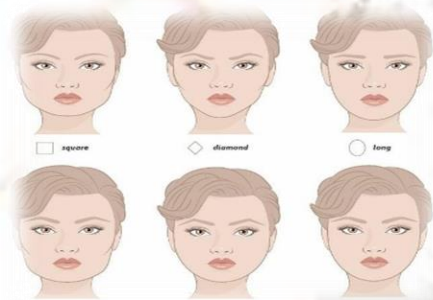
The client's physical features and their lifestyle have an important impact on their choice of styling. Their face and head shape may not be suitable for what they have in mind. Similarly, if their job or leisure activities constrain the option available to them, then you will need to point these aspects out.

The basic rule for styling and face shapes suitable are:

- Face shape
- Lifestyle personality and age
- Hair growth patterns

Face shapes

- An oval shaped face suits any hairstyle
- Round shaped face needs height to compensate for the width
- Long shaped face needs width to compensate for the extra length
- Square shaped face needs rounder styled edges to soften jawlines
- Triangular shaped face needs height to compensate for the width and soft lines at the jawline



Lifestyle personality and age

Lifestyle is a considering factor as client type of lifestyle has a big role in choosing the right style. For instance, if a client has a sporty lifestyle, you would guide her to a short upbeat style easy to maintain. As if the client is in a professional position, you will guide her in a more conservative style.



Hair growth patterns

Hair growth patterns refers to the direction in which it protrudes from the scalp. Natural hair fall seen on wet or dry hair and strong direction growth will have major impact on the lie of the hair when it is styled. It is essential that it is taken into account during consultation.

- Double crown
- Nape whorl
- Cowlick
- Widow's peak

Activity 1 Identify the face shapes

Activity 2 Draw the suitable style for the face shape



Unit 2 Identify what the client wants

Hairdressing is about professional relationships build over time and through good communications. So, in consultation use your communication skills to find out what the client wants in a clear and mutually understood way. It is not that client's wants to mislead us it is more to do with the fact that most people find explaining an idea very difficult.

Most people have no self-visualization. This means that they have not an ability to imagine what a style would look like on them and be a huge problem for those trying to give advice. Seeing what the clients are seeing is everything so you have to find a way of seeing through their eyes.



Asking questions to find out what the client wants

The main types of questions styles are:



Open questions – These are good to use if you want to gain more in-depth information from the client they start with ‘who’ ‘what’ ‘when’ ‘why’

- ☁ What products do you use on your hair?
- ☁ When did you last wash your hair?
- ☁ How often do you use the straightening irons on your hair?

Close questions – These are useful for a quick “Yes” or a “No”

- ☁ Have you coloured your hair before?
- ☁ Would you like me to help you in your lunch hour?
- ☁ Are you against moving your parting to the other side?

Feeling questions – These questions focus upon the client

- ☁ How do you feel about cutting your hair short?
- ☁ How do you feel about a total colour change?

Choice questions – Leading questions

- ☁ Would you prefer a leave in conditioner or one to rinse out?
- ☁ Shall we see if there is time to day to do all services or split them up?
- ☁ Where do you like to wear your parting?



do you know
your ideal client?

Activity 3 For discussion

Discuss with your class how different client personalities will affect the style and method of consultation. Discuss also how you can vary the consultation delivery to ensure that a mutually outcome is derived

Whatever pattern of questioning you choose to use you must make sure:

- ☁ You identify influencing factors
- ☁ The client understands what you are saying
- ☁ You allow the client to consider the options provided
- ☁ You urge the client to give you as much information possible
- ☁ You listen here and understand the client request
- ☁ You confirm what you hear before moving on to the next step of styling.

Using visual aids in consultation

Visual aids are important role as

Pictures they can speak a thousand words the term is an old overworked cliché but very true. Pictures convey aspects of hairstyles or effects that are very difficult to put into words. They cut straight through technical jargon and establish a basis for things that you and the client can see and confirm. Pictures are immensely important visual aid and another form of language that hairdressers understand very well. One reason for this is hairdressers understanding of *shape proportion and balance*. Stylists are trained in looking into pictures to see more than just an overall image. You see things like volume distribution where hair needs shaping in certain way and how colour can influence an overall effect.

Colour charts colour charts are extremely useful for hairdressers. However, they are not always a very helpful visual aid for the client. We treat others, as we would want to be treated. Clients have very little ability for self-visualization but that is why they are asking you for your opinions and advice. Colour charts tend to have very small samples of coloured wefts. Unless you can help the client visualize the

- ☁ Amount and placement of colour
- ☁ Colour intensity
- ☁ Density and saturation of colour



Activity 4 Body talk

What would be the visible signs of someone who?

1. Is defensive
2. Show no interest?
3. Seems confused
4. Want to know more about in salon promotions

Unit 3 Analyse the hair, skin and scalp

All successful salon services must begin with a thorough analysis of the condition of the client's scalp and client's hair type.

Knowing the client's scalp condition and the client's hair type allows you to prepare and make decisions.

Because different types of hair react differently to the same service, it is essential that a thorough analysis performed before all salon services.

Hair analysis is an observation using the senses of sight, touch, hearing, and smell. You need to brush and separate the hair in several directions in different areas over the head so that you can look for any signs that will either limit or change the options available for the client.

The four most important factors to consider in hair analysis are texture, density, porosity, and elasticity. Other factors that you should also be aware of are growth pattern and dryness versus oiliness.

You are looking for anything that could affect your decisions and this could relate;

☁ **Hair texture** is the *thickness* or diameter of the individual hair strand. Hair texture is *coarse, medium, or fine* and can vary from strand to strand on the same person's head. Hair from different areas of the head to have different textures. Hair in the nape (back of the neck), crown, temples, and front hairline of the same person may have different textures.

Coarse hair texture has the largest diameter. It is stronger than fine hair, for the same reason that a thick rope is stronger than a thin rope. It is often more resistant to processing than medium or fine hair, so it usually requires more processing when you are applying products such as hair lighteners, hair colours, permanent waving solutions, and chemical hair relaxers.

Medium hair texture is the most common texture. Medium hair does not pose any special problems or concerns.

Fine hair has the smallest diameter and is more fragile, easier to process, and more susceptible to damage from chemical services than coarse or medium hair as with hair cuticle analysis, hair texture can be determined by feeling a single dry strand between the fingers. Take an individual strand from four different areas of the head—front hairline, temple, crown, and nape—and hold each strand securely with one hand while feeling it with the thumb and forefinger of the other hand. With a little practice, you will be able to feel the difference between coarse, medium, and fine hair diameters.

- ☁ **Hair density** measures the number of individual hair strands on 1square inch (2.5 square centimetres) of scalp. It indicates how many hairs there are on a person's head. Hair density described as low, medium, or high (also known as thin, medium, or thick/dense).

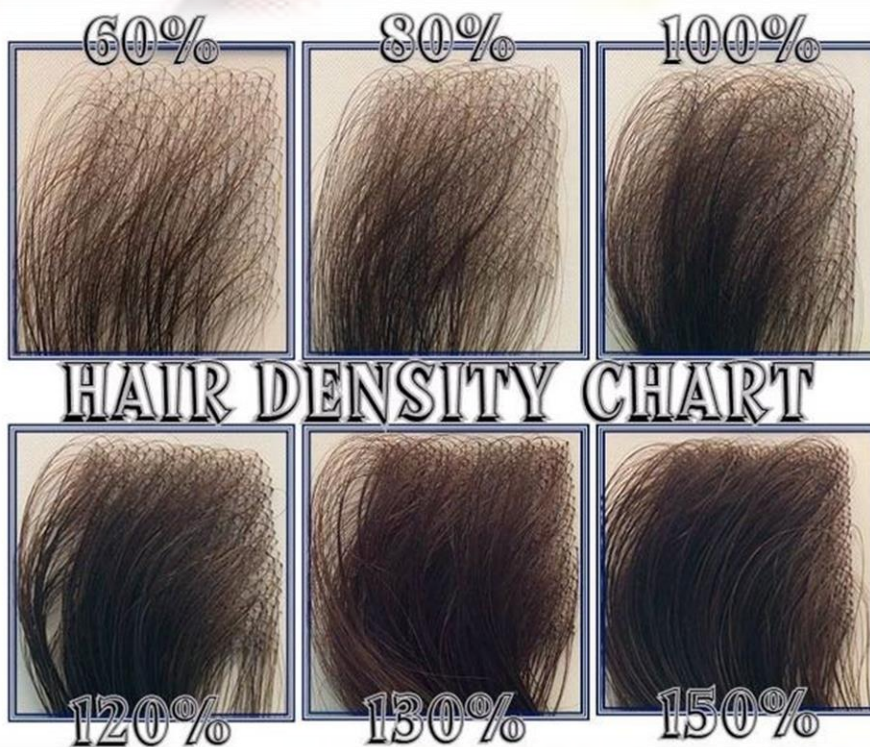
Hair density is different from hair texture—individuals with the same hair texture can have different densities. Some individuals may have coarse hair texture (each hair has a large diameter), but low hair density (a low number of hairs on the head).

Others may have fine hair texture (each hair has a small diameter), but high hair density (a high number of hairs on the head). The average hair density is about 2,200 hairs per 1 square inch. Hair with high density (thick or dense hair) has more hairs per 1 square inch, and hair with low density (thin hair) has fewer hairs per 1 square inch.

The average head of hair contains about 100,000 individual hair strands.

The number of hairs on the head generally varies with the colour of the hair.

Blond hair usually have the highest density, and people with red hair end to have the lowest.



HAVE A GOOD HAIR DAY

3 TEXTURES OF HAIR

Fine

- Has the smallest diameter
- Most fragile
- Caution should be taken when coloring
- Lightens fastest when bleached
- Iron temp. should be between 340-370
- Should be kept covered from the sun
- Can be damaged easily from rough brushing or tight hair ties
- Tends to lack volume and body

Medium

- Most versatile hair texture
- May contain medulla if naturally dark
- Iron temp. should be between 360-390
- Does not damage as easily as fine hair, but will damage easier than coarse hair
- Typically the easiest hair to style
- Care should still be taken while brushing and spending time in the sun

Coarse

- Has the largest diameter of all textures
- Contains a medulla
- Most male facial hair is coarse
- Most difficult texture to lighten
- Will not damage as easily
- Iron temp. should be between 380-410
- Strongest of all hair textures

☁ **Hair porosity** is the ability of the hair to absorb moisture.
The degree of porosity related to the condition of the cuticle layer.

Healthy hair with a compact cuticle layer is naturally resistant to being penetrated by moisture and is referred to as **hydrophobic**

Porous hair has a raised cuticle layer that easily absorbs moisture (hydrophilic)

Hair with *low* porosity is resistant. Chemical services performed on hair with low porosity require a more alkaline solution than those on hair with high porosity. Alkaline solutions raise the cuticle and permit uniform saturation and processing on resistant hair. Hair with average porosity is normal.

Chemical services performed on this type of hair will usually process as expected, according to the texture.

Hair with *high* porosity is considered overly porous hair and is often the result of previous over processing

Overly porous hair is damaged, dry, fragile, and brittle. Chemical services performed on overly porous hair require less alkaline solutions with a lower pH, which help prevent additional over processing and damage.

The texture of the hair can be an indication of its porosity.

Although coarse hair normally has a low porosity and is resistant to chemical services, in some cases coarse hair will have high porosity, perhaps as the result of previous chemical services. You can check porosity on dry hair by taking a strand of several hairs from four different areas of the head (front hairline, temple, crown, and nape). Hold the strand securely with one hand while sliding the thumb and forefinger of the other hand from the end to the scalp. If the hair feels smooth and the cuticle is compact, dense, and hard, it is resistant. If you can feel a slight roughness, it is porous. If the hair feels very rough, dry, or breaks, it is highly porous and may have been over processed

HOW TO WORK OUT HAIR POROSITY

FILL A CUP WITH ROOM TEMPERATURE WATER, AND PLACE A STRAND OF CLEAN HAIR INTO IT. WATCH THE STRAND FOR JUST UNDER 5 MINUTES.

If the hair immediately sinks, your hair is...



HIGH POROSITY

Holes and gaps in the cuticle allow moisture to be absorbed easily but also lost. More products are required to lock moisture in. This hair type will frizz in humid weather.

If the strand gradually sinks, your hair is...



NORMAL POROSITY

The cuticle layer is loose but has no holes and gaps, so just enough moisture enters without it leaving again. Needs little maintenance.

If the strand is floating, your hair is...



LOW POROSITY

Your hair repels water so requires more time to get fully saturated. Products are not easily absorbed so tend to sit on the hair and build up.

☁ **Hair elasticity** is the ability of the hair to stretch and return to its original length without breaking.

Hair elasticity is an indication of the strength of the side bonds that hold the hair's individual fibres in place.

Wet hair with normal elasticity will stretch up to 50 percent of its original length and return to that same length without breaking. Dry hair stretches about 20 percent of its length.

Hair with low elasticity is brittle and breaks easily. It may not be able to hold the curl from wet setting, thermal styling, or permanent waving.

Hair with low elasticity is the result of weak side bonds that usually are a result of over processing.

Chemical services performed on hair with low elasticity require a milder solution with a lower pH to minimize further damage and prevent additional over processing.

Check elasticity on wet hair by taking an individual strand from four different areas of the head (front hairline, temple, crown, and nape). Hold a single strand of wet hair securely and try to pull it apart. If the hair stretches and returns to its original length without breaking, it has normal elasticity. If the hair breaks easily or fails to return to its original length, it has low elasticity.

5 Ways To Improve The Elasticity

IN YOUR HAIR

Up Your Washes

Frequent washes and moisture deep conditioning sessions will help moisten your strands and relax the hydrogen bonds in the cortex improving hydration levels and elasticity in each strand.

L.O.C/L.C.O

The moisture retained while using the L.O.C or L.C.O method enhances your hair's elasticity while easing possible stress in manipulation and friction.

Use EVOO

The fatty acids in Extra Virgin Olive Oil aid in improving the strength and elasticity of your hair strands.

Baggy

Bagging (your ends or entire head) draws moisture & softness into your hair while increasing the hair's ability to stretch beyond its original length and return to its original state without breaking.

Steam

The warm water vapours, while steaming, easily seep into your strands increasing hydration levels. Increased elasticity will be present in effectively moistened hair.

Activity 5

Do this activity with a partner and analyse each other's hair and scalp?

Chapter 4

Anatomy of hair and skin



Unit 1: Basic of chemistry

Unit 2: Physical properties of the hair

Unit 3: Physical properties of the skin

LEARNING OBJECTIVES:

When you have finished this chapter, you should:

- ✿ Know the job roles that people within the hair industry
- ✿ Know the working patterns of people working within the sector
- ✿ Know the career opportunities available to you in the future
- ✿ Understand the services associated with hairdressing and barbering

KEY TERMS:

Beard/Moustache Trimming Cutting Salon Blow-Drying
Setting Hair Up Colour Correction Highlights Shaving Colouring
Lightening Perming Shampooing Consultation Relaxing
Styling Lotion Botox Hair Shaft Cuticle Layer
Cortex Layer Hair Extensions

CAREERS:

- ✿ Cleaner at a salon
- ✿ Receptionist
- ✿ Shampooist
- ✿ Operator
- ✿ Stylist
- ✿ Colour Technician
- ✿ Junior hairdresser
- ✿ Hairdresser
- ✿ Supervisor
- ✿ Manager
- ✿ Salon owner
- ✿ Hairdressing consultants
- ✿ Image and deportment advisor
- ✿ Retail consultants
- ✿ Store merchandiser
- ✿ Stylist on board a Cruise Liner
- ✿ Field technician
- ✿ Teacher
- ✿ Trichologist (hair doctor)
- ✿ Salon owner
- ✿ Assistant Hairdresser

SKILLS DEVELOPMENT:

- ✿ Organisational skills
- ✿ Decision making Social skills
- ✿ Communication skill
- ✿ (verbal and non-verbal)
- ✿ Teamwork Skills
- ✿ Respect
- ✿ Integrity
- ✿ Positive attitude
- ✿ Enthusiasm

ENTREPRENEURSHIP:

- ✿ Selling products
- ✿ Promotional day
- ✿ Promote new services
- ✿ Offer of updated techniques

Introduction Anatomy of the hair and skin

In this chapter we are going to investigate the anatomy of the hair and skin this means that we going to look at the structure and the functions of the elements of the hair and skin.

TERM 2

Unit 1 Basic of chemistry

Chemistry is the science that deals with the composition, structures, and properties of matter and how matter changes under different conditions.

Organic chemistry is the study of substances that contain the element carbon. All living things or things that were once alive, whether they are plants or animals, contain carbon. Organic substances that contain both carbon and hydrogen can burn. Although the term *organic* is often used to mean safe or natural because of its association with living things, such as foods or food ingredients, not all organic substances are natural, healthy, or safe.



You may be surprised to learn that poison ivy, gasoline, motor oil; plastics, synthetic fabrics, pesticides, and fertilizers are all organic substances.

All hair color products, chemical texturizers, shampoos, conditioners, styling aids, nail enhancements, and skin care products are organic chemicals. So, remember, the word *organic*, as applied to chemistry, does not mean natural or healthy; it means that the material contains both carbon and hydrogen from either natural or synthetic sources.

Inorganic chemistry is the study of substances that do not contain the element carbon, but may contain the element hydrogen. Most inorganic substances do not burn because they do not contain carbon. Inorganic substances are not, and never were, alive. Metals, minerals, glass, water, and air are inorganic substances. Pure water and oxygen are inorganic, yet they are essential to life. Hydrogen peroxide, hydroxide hair relaxers, and titanium dioxide (a white pigment used to make white enhancement polymer powders and nail polish) are examples of inorganic substances.

There are no exceptions to this rule.

Matter is any substance that occupies space and has mass (weight). All matter has physical and chemical properties and exists in the form of a solid, liquid, or gas. Since matter is chemicals, everything made out of matter is a chemical.

Matter has physical properties that we can touch, taste, smell, or see. In fact, everything you can touch and everything you can see—with the exception of light and electricity—is matter.

You can see visible light and light that electrical sparks create, but these are not made of matter. Light and electricity are forms of energy, and energy is not matter. Everything known to exist in the universe is made of either matter or energy.

Elements

An **element** is the simplest form of chemical matter and cannot be broken down into a simpler substance without a loss of identity. There are 90 naturally occurring elements, each with its own distinct physical and chemical properties. All matter in the universe is made of these 90 different chemical elements. Elements are identified by a letter symbol, such as *O* for oxygen, *C* for carbon, *H* for hydrogen, *N* for nitrogen, and *S* for sulfur. Symbols for all elements found in the Periodic Table of Elements in chemistry textbooks or by searching the Internet.

Atoms are the smallest chemical components (particles) of an element. They are the structures that make an element and have the same properties of the element. Elements are different from one another because the structure of their atoms is different. Atoms are divided into simpler substances by ordinary chemical means.

Molecules

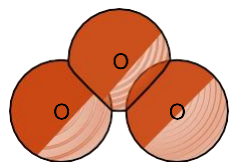
Combining letters forms a word molecule made by combining atoms.

A **molecule** is a chemical combination of two or more atoms in definite (fixed) proportions. For e.g. Water made from hydrogen atoms and oxygen atoms.

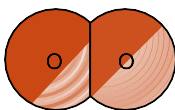
Carbon dioxide made from carbon atoms and oxygen atoms.

Atmospheric oxygen and other chemical substances, such as nitrogen and water vapor, make the air you breathe. This type of oxygen is called an **elemental molecule** a molecule containing two or more atoms of the same element (in this case, oxygen) in definite (fixed) proportions. Known as O_2 . Ozone is another elemental molecule made of oxygen. Ozone is a major component of smog and can be very dangerous. It contains three atoms of the element oxygen and is written as O_3 .

Compound molecules also known as **compounds**, are a chemical combination of two or more atoms of different elements in definite (fixed) proportions. Sodium chloride ($NaCl$), common table salt, is an example of compound molecules. Each sodium chloride molecule contains one atom of the element sodium (Na) and one atom of the element chlorine (Cl).



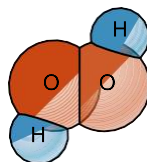
Ozone, O_3 .



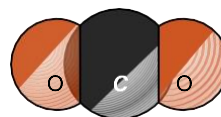
Oxygen, O_2 .



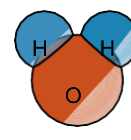
Sodium chloride, $NaCl$.



Hydrogen peroxide, H_2O_2 .



Carbon dioxide, CO_2 .

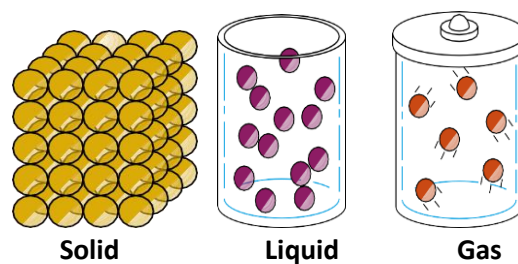


Water, H_2O .

States of Matter

All matter exists in one of three different physical forms:

- ✦ Solid
- ✦ Liquid
- ✦ Gas



*These three forms called the **states of matter**.*

Matter becomes one of these states, depending on its temperature

Like many other substances, water (H_2O) can exist in all three states of matter, depending on its temperature.

For example:

- Water changes according to how the temperature changes, but it is still water.
- When water freezes, it turns to ice.
- When ice melts, it turns back into water.
- When water boils, it turns to steam.
- When the steam cools, it turns back into water.

The water stays the same chemical, but it becomes a different physical form. When one chemical change its state of matter, the change known as a physical change,

Steam is an example of a vapor. Vapors are not a unique state of matter; they are liquids that have undergone a physical change.

- Vapor is a liquid that has evaporated into a gas-like state.
- Vapors return to being a liquid when they cool to room temperatures, unlike a gas.

Physical and Chemical Properties of Matter

Every substance has unique properties that allow us to identify it.

The two types of properties are **physical** and **chemical**.

Physical properties are characteristics that can be determined without a chemical reaction and that do not involve a chemical change in the substance. Physical properties include color, size, weight, hardness, and glossiness. (As described above, the state of matter that a substance becomes is an example of a physical property.)

Chemical properties are characteristics that can only be determined by a chemical reaction and a chemical change in the substance.

Examples of chemical properties:

- The ability of iron to rust
- Wood to burn,
- Hair to change colour using hair color and hydrogen peroxide.

Physical and Chemical Changes

Matter changed in two different ways.

- Physical forces cause physical changes
- Chemical reactions cause chemical changes.

A **physical change** is a change in the form or physical properties

A **chemical change** is a change in the chemical composition of a substance. This change caused by chemical reactions that create new chemical substances, usually by combining or subtracting certain elements. Those new substances have different chemical and physical properties.

An example of a chemical change:

- **Oxidation** of hair color. The term *oxidation* refers to a chemical reaction that combines a substance with oxygen to produce an oxide.
- Wood turning into charcoal after it has burned is a form of oxidation

Oxidation–reduction, also known as **redox** is a chemical reaction in which the oxidizing agent reduced (by losing oxygen) and the reducing agent is oxidized (by gaining oxygen). Redox reactions can take place without oxygen because oxidation also can occur when hydrogen subtracted from a substance. Redox reactions are also responsible for the chemical changes created by hair colors hair lighteners, permanent wave solutions, and thioglycolic acid neutralizers. These chemical services would not be possible without oxidation– reduction (redox) reactions

An **oxidizing agent** is a substance that releases oxygen.

- Hydrogen peroxide (H_2O_2), water with an extra atom of oxygen,

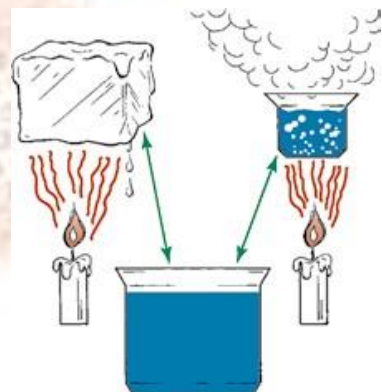
A **reduction** process where oxygen subtracted from hydrogen and added to a substance through a chemical reaction.

In fact, all oxidation reactions are exothermic reactions. An example of an exothermic reaction is a nail product that hardens

A **reducing agent** is a substance that adds hydrogen to a chemical compound or subtracts oxygen from the compound. When hydrogen peroxide mixed with an oxidation hair colour, oxygen subtracted from the hydrogen peroxide and the hydrogen peroxide reduced. At the same time, oxygen added to the hair colour and the hair colour oxidized.

- In this example, hair color is the reducing agent.

Combustion is the rapid oxidation of a substance, accompanied by the production of heat and light. Lighting a match is an example of rapid oxidation. Oxidation requires the presence of oxygen; this is the reason that there cannot be a fire without air. Under certain circumstances, chemical reactions can release a significant amount of heat.



Pure Substances and Physical Mixtures

All matter is either a pure substance or a physical mixture (blend).

A **pure substance** is a chemical combination of matter in definite (fixed) proportions. Pure substances have unique properties. All atoms, elements, elemental molecules, and compound molecules are pure substances. Distilled water is a pure substance that results from the combination of two atoms of the element hydrogen and one atom of the element oxygen in fixed proportions. Water that comes out of a faucet is not pure water.

Most substances do not exist in a pure state. Air contains many substances including nitrogen, carbon dioxide, and water vapor. This is an example of a physical mixture.

A **physical mixture** is a physical combination of matter in any proportions. The properties of a physical mixture are the combined properties of the substances in the mixture. Salt water is a physical mixture of salt and water in any proportion. The properties of salt water are the properties contained in salt and in water: salt water is salty and wet. Most of the products cosmetologists and nail technicians use are physical mixtures

Other Physical Mixtures

Ointments, pastes, pomades, and styling waxes are semisolid mixtures made with any combination of petroleum jelly, oil, and wax.

Powders are a physical mixture of one or more types of solids.

Powdered hair lighteners are physical mixtures. These mixtures may separate during shipping and storage and be thoroughly mixed before each use.

Common Chemical Product Ingredients Cosmetologists use many chemical products when performing client services. Following are some of the most common chemical ingredients used in salon products.

Volatile alcohols evaporate easily, such as isopropyl alcohol (rubbing alcohol) and ethyl alcohol (hairspray and alcoholic beverages). These chemicals are familiar to most people, but there are many other types of alcohols, from free-flowing liquids to hard, waxy solids. Fatty alcohols, such as acetyl alcohol and centenary alcohol, are nonvolatile alcohol waxes used as skin conditioners.

Ammonia is a colorless gas with a pungent odor that is composed of hydrogen and nitrogen. Used to raise the pH in hair products to allow the solution to penetrate the hair shaft.

Ammonium hydroxide and ammonium thioglycolate are compounds of ammonia used to perform chemical services in a salon.

Glycerin is a sweet, colorless, oily substance used as a solvent and as a moisturizer in skin and body creams.

Silicones are a special type of oil used in hair conditioners, water-resistant lubricants for the skin, and nail polish dryers. Silicones are less greasy than other oils and are breathable

Potential Hydrogen (pH)

Although **pH**, the abbreviation used for *potential hydrogen*.

The term *pH* represents the quantity of hydrogen ions.

Notice that *pH* written with a small *p* (which represents a quantity) and a capital *H* (which represents the hydrogen ion).

Water and pH

Before you can understand pH, you need to learn about ions. An **ion** is an atom or molecule that carries an electrical charge. **Ionization** is the separation of an atom or molecule into positive and negative ions.

An ion with a negative electrical charge is an **anion**

An ion with a positive electrical charge is a **cation**

In water, some of the water (H_2O) molecules naturally ionize into hydrogen ions and hydroxide ions. The pH scale measures these ions. The hydrogen ion (H^+) is acidic. The more hydrogen ions there are in a substance, the more acidic it will be.

The hydroxide ion (OH^-) alkaline. The more hydroxide ions there are in a substance, the more alkaline it will be. pH is only possible because of this ionization of water.

Only products that contain water can have a pH.

In pure (distilled) water, each water molecule that ionizes produces one hydrogen ion and one hydroxide ion. Pure water has a neutral pH because it contains the same number of hydrogen ions as hydroxide ions. It is an equal balance of 50 percent acidic and 50 percent alkaline. The pH of any substance is always a balance of both acidity and alkalinity. As acidity increases, alkalinity decreases. The opposite is also true; as alkalinity increases, acidity decreases. Even the strongest acid also contains some alkalinity.

The pH Scale

A **pH scale** is a measure of the acidity and alkalinity of a substance. It has a range of 0 to 14.

A pH of 7 is a neutral solution, a pH below 7 indicates an **acidic solution**, and a pH above 7 indicates an **alkaline solution**

The term **logarithm** (LOG-ah-rhythm) means multiples of 10. Since the pH scale is a logarithmic scale, a change of one whole number represents a tenfold change in pH.

This means, for example, that a pH of 8 is 10 times more alkaline than a pH of 7.

A change of two whole numbers represents a change of 10 times 10, or a 100-fold change.

a pH of 9 is 100 times more alkaline than a pH of 7. Even a small change on the pH scale represents a large change in the pH.

pH is always a balance of both acidity and alkalinity. Pure water has a pH of 7, which is an equal balance of acid and alkaline. Although a pH of 7 is neutral on the pH scale, it is not neutral compared to the hair and skin, which have an average pH of 5. Pure (distilled) water, with a pH of 7, is 100 times more alkaline than a pH of 5, so pure water is 100 times more alkaline than your hair and skin. This difference in pH is the reason pure water can cause the hair to swell as much as 20 percent and the reason that water is drying to the skin.

Acids and Alkalis

All acids owe their chemical reactivity to the hydrogen ion. Acids have a pH below 7.0.

Alpha hydroxy acids (AHAs) derived from plants (mostly fruit), are examples of acids often used in salons to exfoliate the skin and to help adjust the pH of a lotion or cream.

Acids contract and harden hair. One such acid is **thioglycolic acid** a colorless liquid or white crystals with a strong unpleasant odor that is used in permanent waving solutions.

All **alkalis** also known as **bases**, owe their chemical reactivity to the hydroxide ion. Alkalis are compounds that react with acids to form salts. Alkalis have a pH above 7.0. They feel slippery and soapy on the skin. Alkalis soften and swell hair, skin, the cuticle on the nail plate, and calloused skin.

Sodium hydroxide, commonly known as lye, is a very strong alkali used in chemical hair relaxers, callous softeners, and drain cleaners. These products according to manufacturer's instructions, and it is very important that you do not let the products touch or sit on the skin as they may cause injury to or a burning sensation on the skin.

Sodium hydroxide products may be especially dangerous if they get into the eyes, so always wear safety glasses to avoid eye contact. Consult the product's MSDS for more specific information on safe use.

Acid-Alkali Neutralization Reactions

The same reaction that naturally ionizes water into hydrogen ions and hydroxide ions also runs in reverse. When acids and alkalis mix in equal proportions, they neutralize each other to form water. Neutralizing shampoos and normalizing lotions used to neutralize hair relaxers work by creating an acid-alkali neutralization reaction. Liquid soaps are usually slightly acidic and can neutralize alkaline callous softener residues left on the skin after rinsing.



ACTIVITY 1

For a product to have a pH, it must contain water. Shampoos, conditioners, haircolor, permanent waves, relaxers, lotions, and creams have a pH. Divide into groups and research these products online to find their pH. If the information is not available online, contact the manufacturers. Make a chart and compare your findings with what your classmates found. How will the pH of these products affect the hair?

Structure of the Hair

The scientific study of hair and its diseases known as trichology that comes from the Greek words trichos (hair) and ology (the study of).

The hair, skin, nails, and glands are part of the integumentary system.

Although we no longer need hair for warmth and protection, hair still has an enormous impact on our psychology.

Human hair divided into two parts:

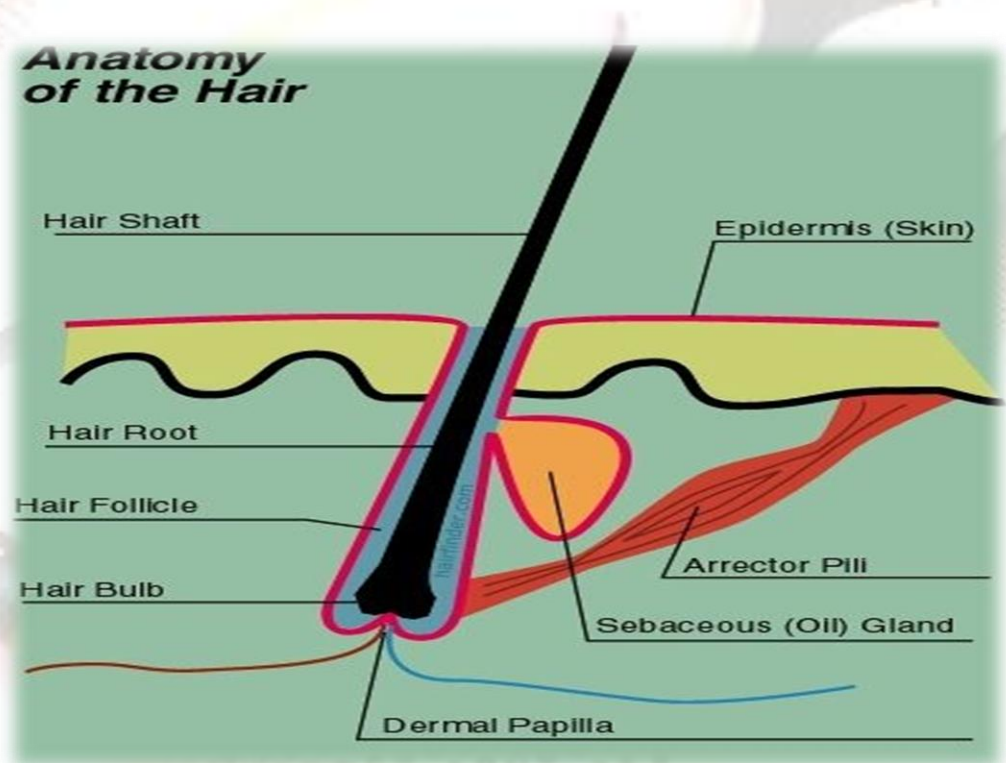
- The hair root and
- The hair shaft.

The hair root is the part of the hair located below the surface of the epidermis (outer layer of the skin). The hair shaft is the portion of the hair that projects above the epidermis

Structures of the Hair Root

The five main structures of the hair root include:

- the hair follicle,
- hair bulb,
- dermal papilla,
- arrector pili muscle, and
- sebaceous (oil) glands



Activity 2

Complete a worksheet on the structure of the skin and hair

The hair follicle is the tube-like pocket in the skin or scalp that contains the hair root.

Hair follicles distributed all over the body, with the exception of the palms of the hands and the soles of the feet.

The follicle extends downward from the epidermis into the dermis (the inner layer of skin), where it surrounds the dermal papilla. Sometimes more than one hair will grow from a single follicle.

The hair bulb is the lowest part of a hair strand. It is the thickened, club-shaped structure that forms the lower part of the hair root. The lower part of the hair bulb fits over and covers the dermal papilla.

The dermal papilla is a small, cone-shaped elevation located at the base of the hair follicle that fits into the hair bulb. The dermal papilla contains the blood and nerve supply that provides the nutrients needed for hair growth.

Some people refer to the dermal papilla as the mother of the hair because it contains the blood and nerve supply that provides the nutrients needed for hair growth. •

The arrector pili muscle is the small, involuntary muscle in the base of the hair follicle.

Strong emotions or a cold sensation cause it to contract, which makes the hair stand up straight and results in what we call goose bumps.

Sebaceous glands are the oil glands in the skin that connect to the hair follicles.

The sebaceous glands secrete a fatty or an oily substance called sebum.

Sebum lubricates the skin.

Structures of the Hair Shaft

The three main layers of the hair shaft are the hair cuticle, cortex, and medulla

The hair cuticle is the outermost layer of the hair. It consists of a single overlapping layer of transparent, scale-like cells that look like shingles on a roof.

The cuticle layer provides a barrier that protects the inner structure of the hair as it lies tightly against the cortex. It is responsible for creating the shine and the smooth, silky feel of healthy hair.

To feel the cuticle, pinch a single healthy strand of hair between your thumb and forefinger.

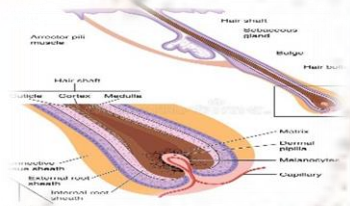
Starting near the scalp, pull upward on the strand. The strand should feel sleek and smooth.

Next, hold the end of the hair strand with one hand, and then pinch the strand with the thumb and forefingers of your other hand. Move your fingers down the hair shaft. In this direction, the hair feels rougher because you are going against the natural growth of the cuticle layer.

A healthy, compact cuticle layer is the hair's primary defence against damage. A lengthwise cross-section of hair shows that although the hair cuticle scales overlap, each individual cuticle scale attached to the cortex. Overlapping scales make up the cuticle layer.

Swelling the hair by applying substances such as hair colour raises the cuticle layer and opens the space between the scales, which allows liquids to penetrate into the cortex.

A healthy hair cuticle layer protects the hair from penetration and prevents damage to hair fibres. Oxidation hair colours, permanent waving solutions, and chemical hair relaxers must have an alkaline pH to penetrate the cuticle layer, because a high pH swells the cuticle and causes it to lift and expose the cortex.



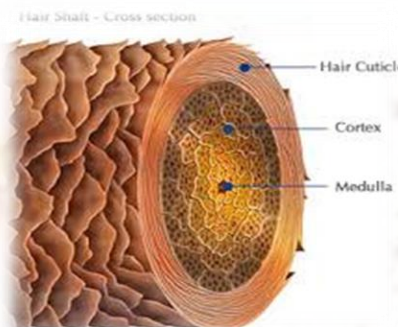
The cortex is the middle layer of the hair. It is a fibrous protein core formed by elongated cells containing melanin pigment. About 90 percent of the total weight of hair comes from the cortex. The elasticity of the hair and its natural colour are the result of the unique protein structures located within the cortex. The changes involved in oxidation hair colouring, wet setting, thermal styling, permanent waving, and chemical hair relaxing take place within the cortex

The medulla is the innermost layer of the hair and is composed of round cells. It is quite common for very fine and naturally, blond hair entirely lack a medulla. Generally, only thick, coarse hair contains a medulla.

All male beard hair contains a medulla. The medulla is not involved in salon services.

Hair is composed of protein that grows from cells originating within the hair follicle. This is where the hair begins. As soon as these living cells form, they begin their journey upward through the hair follicle. They mature in a process called **keratinization**. As these newly formed cells mature, they fill up with a fibrous protein called keratin. After they have filled with keratin, the cells move upward, lose their nucleus, and die.

By the time the hair shaft emerges from the scalp, the cells of the hair completely **keratinized** and are no longer living. The hair shaft that emerges is a non-living fibre composed of **keratinized** protein.



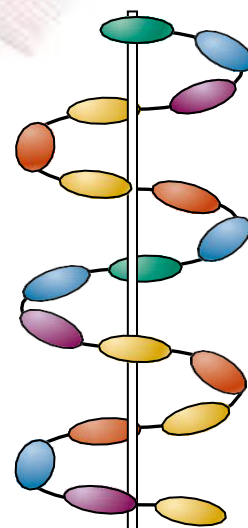
Hair is approximately 90 percent protein. The protein is long chains of amino acids, The major elements of human hair are carbon, oxygen, hydrogen, nitrogen, and sulphur. Known as **COHNS** elements and are found in skin and nails.

The C H O N S elements.	
Elements	Percentage in normal hair
Carbon	51%
Oxygen	21%
Hydrogen	6%
Nitrogen	17%
Sulphur	5%

Proteins are made of long chains of amino acids units that joins end to end like pop beads. The strong, chemical bond that joins amino acids is a **peptide bond**.

A long chain of amino acids linked by peptide bonds known as a **polypeptide chain**

Proteins are long, coiled complex polypeptides made of amino acids. The spiral shape of a coiled protein known as a helix created when the polypeptide chains intertwine with each other



Activity 3

Name and explain the layers of the hair

Activity 4

Name and explain the growth cycle of the hair

Side Bonds of the Cortex

The cortex made of millions of polypeptide chains. Polypeptide chains cross-linked like the rungs on a ladder by three different types of side bonds that link the polypeptide chains together and are responsible for the extreme strength and elasticity of human hair.

They are essential to services such as wet setting, thermal styling, permanent waving, and chemical hair relaxing

The three types of side bonds are hydrogen, salt, and disulphide bonds

A hydrogen bond is a weak, bond that breaks easily by *water or heat*.

Although individual hydrogen bonds are very weak, there are so many of them that they account for about one-third of the hair's overall strength.

Hydrogen bonds break by wetting the hair that allows the hair to stretch and wrapped around rollers. The hydrogen bonds reform when the hair dries.

A salt bond is also a weak, bond between polypeptide chains.

Salt bonds depend on pH, so they are easily broken by strong alkaline or acidic solutions Even though they are weak bonds, there are so many of them that they account for about one-third of the hair's overall strength

A disulphide bond is a strong, chemical, bond that is very different from the hydrogen bond or salt bond.

Although there are far fewer disulphide bonds than hydrogen or salt bonds, disulphide bonds are so much stronger that they also account for about one-third of the hair's overall strength.

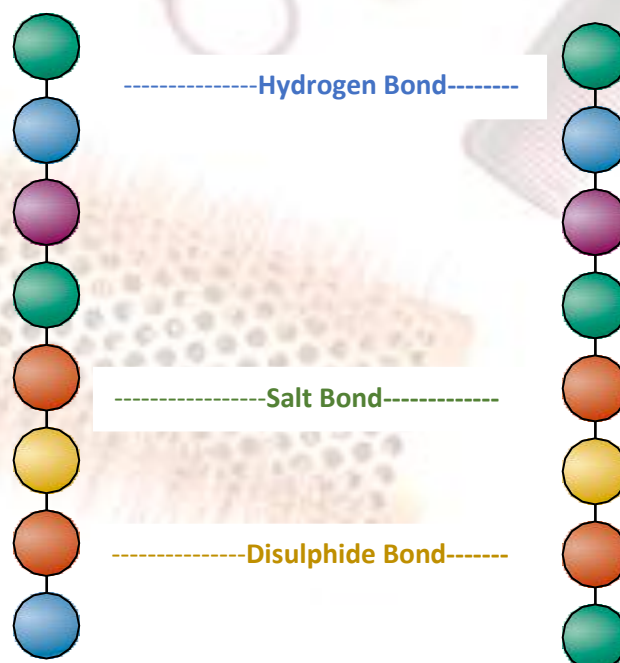
They break by permanent waves and chemical hair relaxers that alter the shape of hair.

Additionally, normal amounts of heat, such as the heat used in thermal styling, do not break disulphide bonds.

The bonds break by extreme heat produced by boiling water and some high temperature thermal styling tools such as straightening or flat irons.

Permanent waves break disulphide bonds and reform the bonds with neutralizers.

The disulphide bonds that break with hydroxide relaxers are broken permanently.



Hair Pigment

All-natural hair colour is the result of the pigment located within the cortex. Melanin are the tiny grains of pigment in the cortex that give natural colour to the hair.

The two types of melanin are **eumelanin** and **pheomelanin**.

- **Eumelanin** provides natural dark brown to black colour to hair.
- **Pheomelanin** provides natural colours ranging from red and ginger to yellow and blond tones.

All-natural hair colour is the result of the ratio of eumelanin to pheomelanin, along with the total number and size of pigment granules.

Grey hair absence of melanin. Grey hair grows from the hair bulb in exactly the same way that pigmented hair grows. It has the same structure, but without the melanin pigment.

Wave Pattern

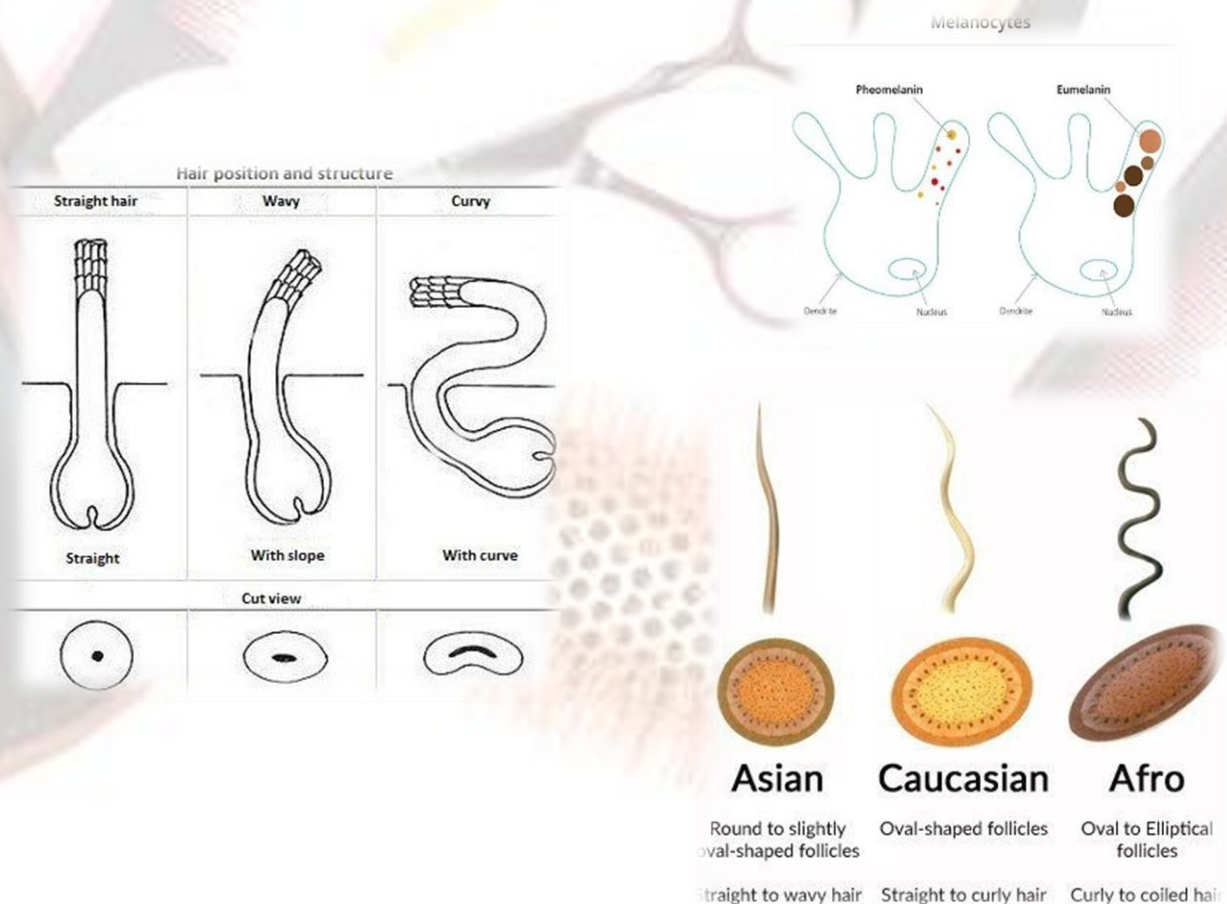
The wave pattern of hair refers to the shape of the hair strand.

- straight,
- wavy,
- curly
- extremely curly

Natural wave patterns are the result of genetics. Although there are many exceptions, generally, Asians tend to have extremely straight hair. Caucasians tend to have straight, wavy, or curly hair, and African hair tends to be extremely curly.

Straight, wavy, curly, and extremely curly hair occur in all races—anyone of any race, or mixed race, can have hair with varying degrees of curl from straight to extremely curly.

The wave pattern may also vary from strand to strand on the same person's head.



Type of Hair

The two main types of hair found on the body are **vellus** hair and **terminal** hair

Vellus hair is short, fine, unpigmented, and downy hair that appears on the body. Vellus hair almost never has a medulla. It is commonly found on infants and can be present on children until puberty. On adults, vellus hair is usually found in places that are normally considered hairless (forehead, eyelids, and bald scalp), as well as nearly all other areas of the body, except the palms of the hands and the soles of the feet. Women normally have 55 percent more vellus hair than men. Vellus hair helps with the evaporation of perspiration.

Terminal hair is the long, coarse, pigmented hair found on the scalp, legs, arms, and bodies of males and females. Terminal hair is coarser than vellus hair. It usually has a medulla. Hormonal changes during puberty because some areas of fine vellus hair replaced with thicker terminal hair. All hair follicles are capable of producing either vellus or terminal hair, depending on genetics, age, and hormones.

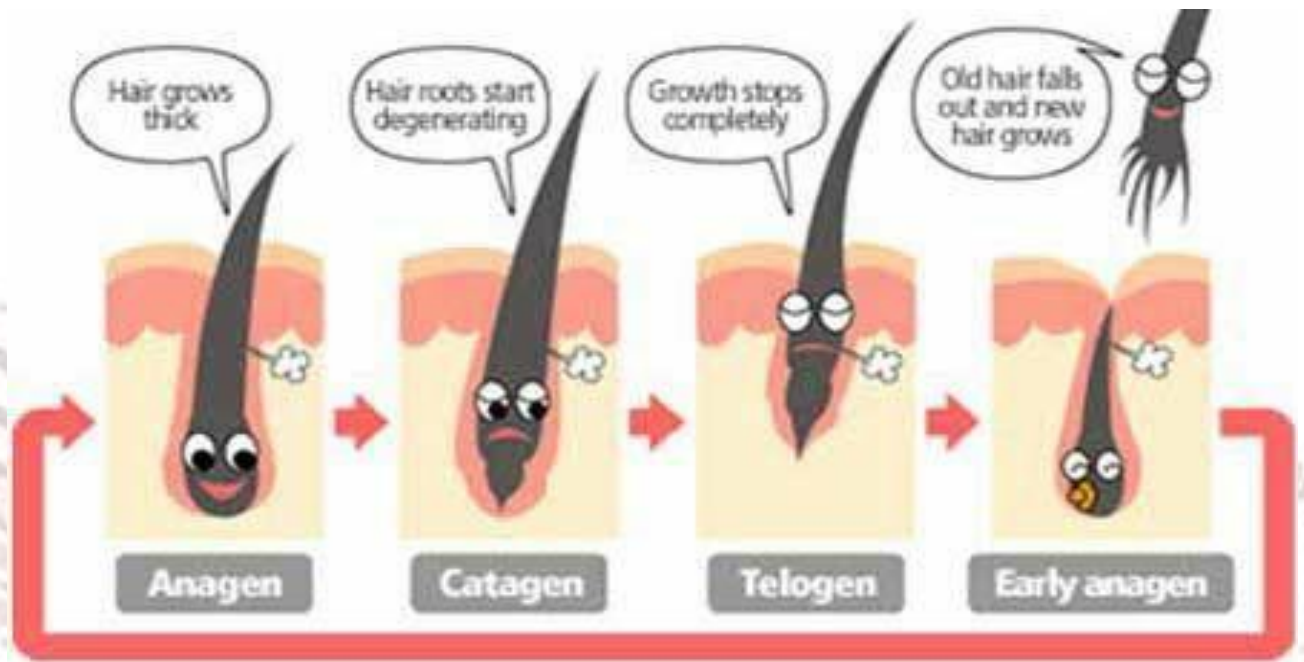
Growth Cycles of Hair

Hair growth occurs in cycles. Each complete cycle has three phases that are repeatedly throughout life.

The three phases are anagen, catagen, and telogen

On average, the entire growth cycle repeats itself once every four to five years.

- ✿ **The anagen phase** also known as growth phase, hair cells produced faster than any other normal cell in the human body. The average growth of healthy scalp hair is about $\frac{1}{2}$ (0.5) inch (1.25 centimetres) per month. Scalp hair grows faster on women than on men. Scalp hair grows rapidly between the ages of 15 and 30, but slows down sharply after the age of 50. Vellus hair and terminal hair generally, lasts from three to five years, but in some cases, it can last as long as 10 years. The longer the anagen cycle is, the longer the hair is able to grow. This is why some people can only grow their hair down to their shoulders, while others can grow it down to the floor. About 90 percent of scalp hair is growing in the anagen phase at any time.
- ✿ **The catagen phase** is the brief transition period between the growth and resting phases of a hair follicle. It signals the end of the anagen phase. During the catagen phase, the follicle channel shrinks and detaches from the dermal papilla. The hair bulb disappears and the shrunken root end forms a rounded club. Less than one percent of scalp hair is in the catagen phase at any time. The catagen phase is very short, lasting from one to two weeks.
- ✿ **The telogen phase** also known as resting phase, is the final phase in the hair cycle and lasts until the fully grown hair is shed. The hair either shed during the telogen phase or remains in place until the next anagen phase, when the new hair growing in pushes it out. About 10 percent of scalp hair is in the telogen phase at any one time. The telogen phase lasts for approximately three to six months. As soon as the telogen phase ends, the hair returns to the anagen phase and begins the entire cycle again.

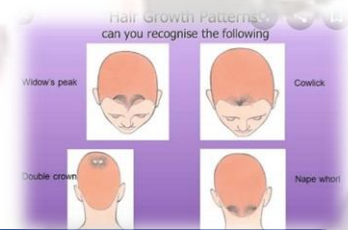


Hair Growth Patterns

It is important when shaping and styling hair to consider the hair's growth patterns. Hair follicles usually do not grow out of the head at a perpendicular, 90-degree angle or in a straight direction out from the head.

When they do, these growth patterns result in:

- ✿ Hair Streams,
- ✿ Whorls,
- ✿ Cowlicks.



The Truth about Hair Growth

As a stylist, you may hear opinions about hair growth from your clients or from other stylists.

Here are some myths and facts about hair growth:

Myth. Shaving, clipping, and cutting the hair on the head makes it grow back faster, darker, and coarser.

Fact. Shaving or cutting the hair on the head has no effect on hair growth. When hair is blunt cut to the same length, it grows back more evenly. Although it may seem to grow back faster, darker, and coarser, shaving or cutting hair on the head has no effect on hair growth.

Myth. Gray hair is coarser and more resistant than pigmented hair.

Fact. Other than the lack of pigment, gray hair is exactly the same as pigmented hair. Although grey hair may be resistant, it is not resistant simply because it is grey. Pigmented hair on the same person's head is just as resistant as the grey hair. Gray hair is simply more noticeable than pigmented hair.

The medical branch of science that deals with the study of skin— its nature, structure, functions, diseases, and treatment—is called dermatology

A dermatologist is a doctor who specializes in diseases and disorders of the skin, hair, and nails.

Because some skin symptoms may be a sign of internal disease, many dermatologists have additional training in internal medicine.

Cosmetologists may clean skin, preserve the health of skin, and beautify the skin, depending on the laws and regulations of their state.

Cosmetologists may not diagnose, prescribe, or provide any type of treatment for abnormal conditions, illnesses, or diseases. Cosmetologists refer clients with medical issues to dermatologists more than to any other type of physician.

The skin is the largest organ of the body. Skin of an average adult stretched out, it would cover 5m and weigh about 2.7 to 4.9 Kg.

Our skin protects the network of muscles, bones, nerves, blood vessels, and everything else inside our bodies. It is the only natural barrier between our bodies and the environment. Healthy skin should be free of any visible signs of disease, infection, or injury.

The scalp constructed similarly to the skin elsewhere on the human body, but the scalp has larger and deeper hair follicles to accommodate the longer hair of the head.

The skin is composed of two main divisions: the **epidermis** and the **dermis**

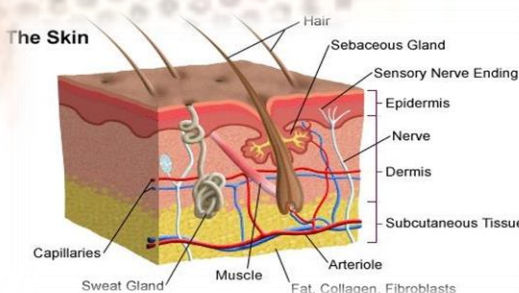
The epidermis is the outermost and thinnest layer of the skin. It contains no blood vessels, but has many small nerve endings.

The dermis also known as the true skin is the underlying or inner layer of the skin.

The dermis extends to form the subcutaneous tissue. The highly sensitive dermis layer of connective tissue is about 25 times thicker than the epidermis. Within its structure, there are numerous blood vessels, lymph vessels, nerves, sudoriferous (sweat) glands, sebaceous (oil) glands, and hair follicles, as well as arrector pili muscles.

Arrector pili muscles are the small, involuntary muscles in the base of the hair that cause goose flesh—or goose bumps.

Subcutaneous tissue is the fatty tissue found below the dermis. It gives smoothness and contour to the body, contains fats for use as energy, and acts as a protective cushion for the skin. Subcutaneous tissue varies in thickness according to the age, gender, and general health of the individual



Skin Nourishment

Blood supplies nutrients and oxygen to the skin. Nutrients are molecules from food, such as protein, carbohydrates, and fats. These nutrients are necessary for cell life, repair, and growth.

Functions of the Skin

The six principal functions of the skin are

- ✿ Protection,
- ✿ Sensation,
- ✿ Heat regulation,
- ✿ Excretion,
- ✿ Secretion,
- ✿ Absorption.

Protection The skin protects the body from injury and bacterial invasion.

This outermost layer is resistant to wide variations in temperature, minor injuries, chemically active substances, and many forms of bacteria. •

Sensation By stimulating different sensory nerve endings, the skin responds to heat, cold, touch, pressure, and pain

Heat regulation the skin protects the body from the environment. A healthy body maintains a constant internal temperature of about 37 degrees Celsius. As changes occur in the outside temperature, the skin makes necessary adjustments to allow the body to cool off by the evaporation of sweat. •

Excretion Perspiration from the sweat glands excreted through the skin. Water lost through perspiration takes salt and other chemicals with it.

Secretion Sebum secreted by the sebaceous glands. This oil lubricates the skin, keeping it soft. Emotional stress and hormone imbalances can increase the flow of sebum.

Absorption the outer layers of the skin can absorb ingredients but very few can penetrate the epidermis. Small amounts of fatty materials, such as those used in skin care products may be absorbed

Chapter 5

Cutting Ladies Hair



Unit :1 Basic Principles of Haircutting
Unit :2 Cutting tools
Unit :3 Controlling the shape
Unit :4 Provide after care advice

LEARNING OBJECTIVES:

When you have finished this chapter, you should:

- ✿ Know the job roles that people within the hair industry
- ✿ Know the working patterns of people working within the sector
- ✿ Know the career opportunities available to you in the future
- ✿ Understand the services associated with hairdressing and barbering

KEY TERMS:

Beard/Moustache Trimming Cutting Salon Blow-Drying
Setting Hair Up Colour Correction Highlights Shaving Colouring
Lightening Perming Shampooing Consultation Relaxing
Hair Shaft Cuticle Layer Cortex Layer Hair Extensions

CAREERS:

- ✿ Cleaner at a salon
- ✿ Receptionist
- ✿ Shampooist
- ✿ Operator
- ✿ Stylist
- ✿ Colour Technician
- ✿ Junior hairdresser
- ✿ Hairdresser
- ✿ Supervisor
- ✿ Manager
- ✿ Salon owner
- ✿ Hairdressing consultants
- ✿ Image and deportment advisor
- ✿ Retail consultants
- ✿ Store merchandiser
- ✿ Stylist on board a Cruise Liner
- ✿ Field technician
- ✿ Teacher
- ✿ Trichologist (hair doctor)
- ✿ Salon owner
- ✿ Assistant Hairdresser

SKILLS DEVELOPMENT:

- ✿ Organisational skills
- ✿ Decision making Social skills
- ✿ Communication skill
(*verbal and non-verbal*)
- ✿ Teamwork Skills
- ✿ Respect
- ✿ Integrity
- ✿ Positive attitude
- ✿ Enthusiasm

ENTREPRENEURSHIP:

- ✿ Selling products
- ✿ Promotional day
- ✿ Promote new services
- ✿ Offer of updated techniques

Introduction Cutting

Cutting is the most important aspect of hairdressing even if it's not considered number one by hairdresser and professionals in the craft.

Unit 1 Basic Principles of Haircutting

Good haircuts begin with an understanding of the shape of the head, referred to as the head form, also known as head shape.

Hair responds differently on various areas of the head, depending on the length and the cutting technique used.

Being aware of where the head form curves, turns, and changes will help you achieve the look that you and your client are seeking.

Note that the bang area, when combed into a natural falling position, falls no farther than the outer corners of the eyes.

Reference Points

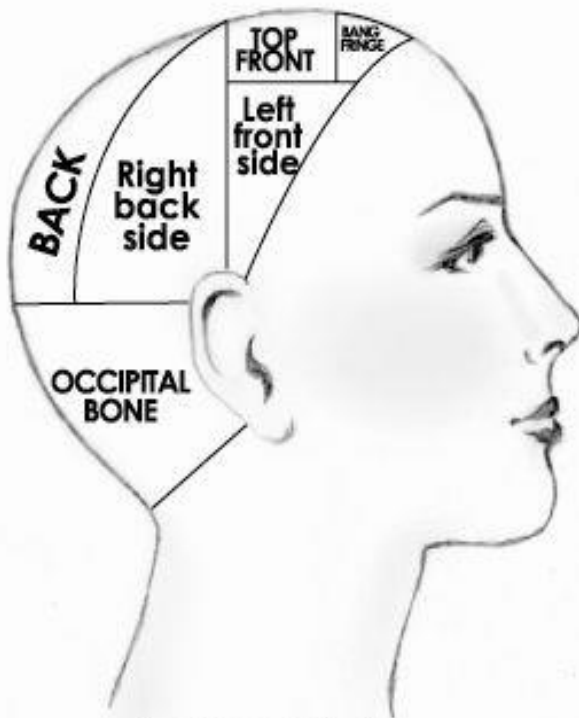
Reference points on the head mark where the surface of the head changes, such as the ears, jawline, occipital bone, or apex.

An understanding of head shape and reference points will help you in the following ways:

- ✿ **Finding balance** within the design, so that both sides of the haircut turn out the same
- ✿ **Developing** the ability to create the same haircut consistently showing where and when it is necessary to change technique to make up for irregularities (such as a flat crown) in the head form
- ✿ **Parietal ridge.** This is the widest area of the head, starting at the temples and ending at the bottom of the crown. This area found by placing a comb flat on the side of the head: the parietal ridge found where the head starts to curve away from the comb. The parietal ridge is also referred to as the crest area
- ✿ **Occipital bone.** The bone that protrudes at the base of the skull is the occipital bone. To find the occipital bone, simply feel the back of the skull or place a comb flat against the nape and find where the comb leaves the head
- ✿ **Apex.** This is the highest point on the top of the head. This area is easily located by placing a comb flat on the top of the head. The comb will rest on that highest point
- ✿ **Four corners.** These may be located in one of two ways. One is by placing two combs flat against the side and back, and then locating the back corner at the point where the two combs meet
- ✿ **Front.** By making a parting, or drawing a line from the apex to the back of the ear, you can separate the hair that naturally falls in front of the ear from the hair behind the ear.
- ✿ **Sides.** The sides are easy to locate. They include all hair from the back of the ear forward, below the parietal ridge.
- ✿ **Crown.** The crown is the area between the apex and the back of the parietal ridge. On many people, the crown is flat and the site of cowlicks or whorls. Because of this, it is extremely important to pay special attention to this area when haircutting.
- ✿ **Nape.** The nape is the area at the back part of the neck and consists of the hair below the occipital bone. The nape can be located by taking a horizontal parting, or by making a horizontal line across the back of the head at the occipital bone.
- ✿ **Back.** By making a parting or drawing a line from the apex to the back of the ear, you can locate the back of the head, which consists of all the hair that falls naturally behind the ear. When you have identified the front, you have also identified the back.
- ✿ **Bang area,** also known as fringe area. The bang area is a triangular section that begins at the apex and ends at the front corners this area can be located by placing a comb on top of the head so that the middle of the comb is balance on the apex. The spot where the comb leaves the head in front of the apex is where the bang area begins.

HEAD DIVISIONS

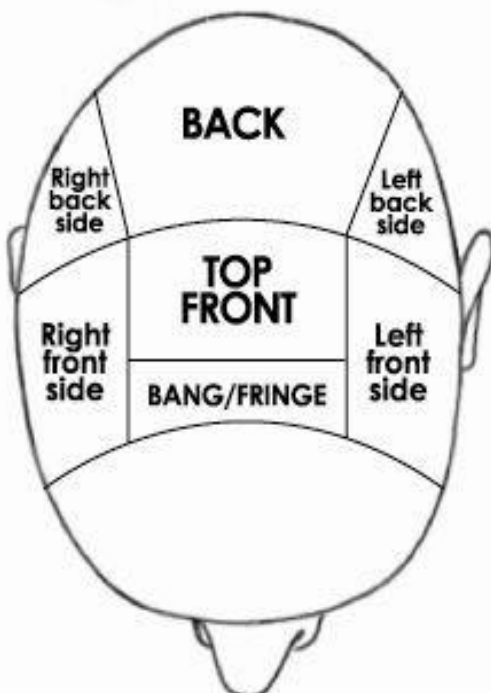
"Almost perfect" head shape



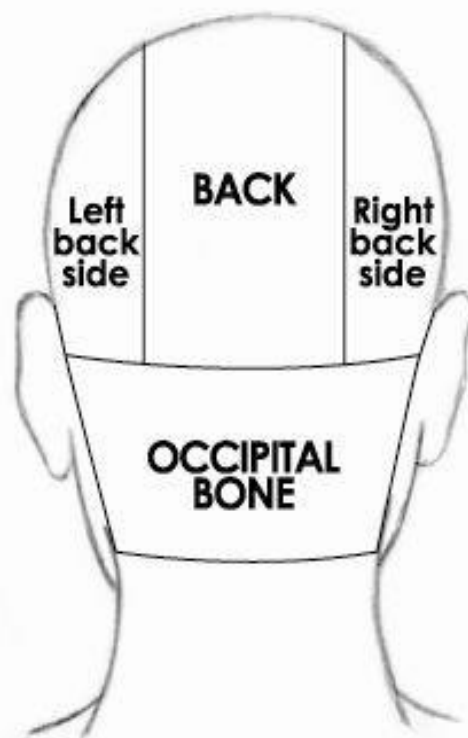
SIDE VIEW



FRONT VIEW



TOP VIEW



BACK VIEW

Lines and Angles

Every haircut is made of lines and angles.

A **line** is a thin continuous mark used as a guide.

- ✿ **Symmetrical** – The base line for evenly balanced hair
- ✿ **Asymmetrical** – The baseline to be used where the hair is unevenly balanced
- ✿ **Concave** – The baseline may be cut curving inwards or down wards
- ✿ **Convex** – The baseline may be cut curving upwards and outwards
- ✿ **Straight** – The baseline may be cut straight

Activity 1 Find pictures of people with deferent face profiles

Concave

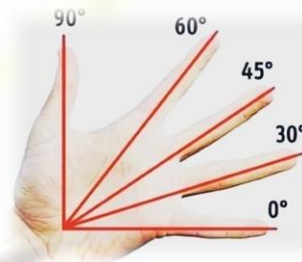
Convex

Straight

Cutting lines into the hair makes the hair fall into a shape

There are three types of straight lines and degree of holding hair in haircutting:

- ✿ Horizontal - 180°
- ✿ Vertical - 90°
- ✿ Diagonal - 45°

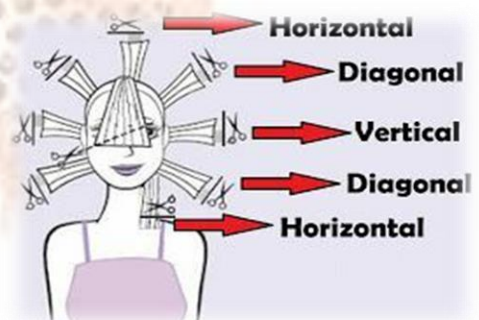


Horizontal lines. These are parallel to the horizon or the floor. Horizontal lines direct the eye from one side to the other. Horizontal lines build weight. These create one-length and low-elevation haircuts and to add weight

Vertical lines. Described in terms of up and down and are perpendicular to the floor; they are the opposite of horizontal. Vertical lines remove weight to create graduated or layered haircuts with higher elevations

Diagonal lines. These are between horizontal and vertical. They have a slanting or sloping direction. Diagonal lines create fullness and blend long layers into short layers.

An **angle** is the space between two lines or surfaces that intersect at a given point.



The two basic lines used in haircutting are **straight** and **curved**.
The head itself is curved and straight lines.
There are three aspects of cutting

- The holding angle – the angle in which the hair is held out from the head
- The cutting angle – the angle at which the scissors razor etc. cuts the hair
- The holding tension – the even pressure applied to section of the hair when held ready for cutting.

Angles are important elements in creating a strong foundation and consistency in haircutting

Sectioning For control during haircutting, hair sectioned into uniform working areas each section divided into smaller partings called subsections.

Parting is the line dividing the hair at the scalp, separating one section of hair from another, creating subsections.

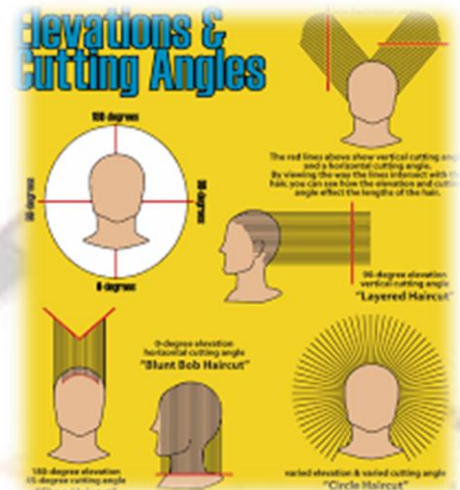
Elevation, also known as projection or lifting, is the angle or degree at which a subsection of hair held, from the head when cutting. Elevation creates graduation and layers, and is usually described in degrees

In a blunt or one-length haircut, there is no elevation (0 degrees). Elevation occurs when you lift any section of hair above 0 degrees

Once you understand the effects of elevation, you can create any shape you desire. The most commonly used elevations are 45 and 90 degrees. The more you elevate the hair, the more graduation you create.

When the hair is elevated below 90 degrees, you are building weight. When you elevate the hair at 90 degrees or higher, you are removing weight, or layering the hair.

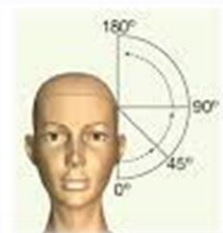
Guidelines also known as guide, is a section of hair that determines the length of the haircut. Guidelines are located at either the perimeter, (the outer line, or the interior, inner or internal line, of the cut.)The guideline is usually the first section cut when creating a shape.



90



- Elevation**
- **Elevation** – angle at which hair is held from head
 - **Graduation** – layers described in degrees
 - **Shrinkage** – hair contracts as it dries



Posture and Body

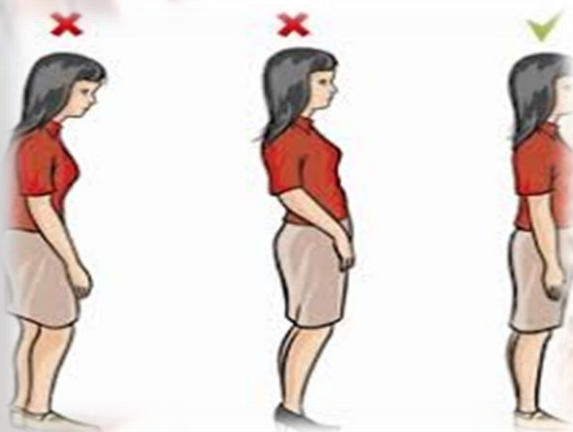
Position It is important to be aware of your habits of posture (how you stand and sit) and body position (how you hold your body when cutting hair).

As a hairdresser, you will be spending many hours on your feet, and you may want to consider using a cutting stool and wearing proper footwear as preventive measures. Good posture and body position will help you avoid future back problems and ensure better haircutting results.

Position the client. Not only is your body position important, but so is your client's. Make sure that your client is sitting up straight and that her legs are not crossed. Gentle reminders as the haircut progresses may be necessary. Remember, you can move the client by turning the chair or raising/lowering of the chair, whichever gives you the option of keeping your body in the same place,

Centre your weight. When working, keep your body weight cantered and firm. When standing, keep your knees slightly bent rather than locked. Instead of bending at the waist, try bending one knee if you need to lean slightly one way or the other. When sitting, keep both feet on the floor. •

Work in front of your section. When cutting hair, a general rule of thumb is to stand or sit directly in front of the area you are cutting. By doing this, you keep your body weight cantered, and you will automatically find yourself moving around the head during a haircut.



Unit :2 Cutting tools

How do you choose and use the right tools for the job? To find the answer, you will need to understand the function and characteristics of tools. How to use them in a way that is safe for both you and your client,



There are several tools that you will need for haircutting.

Understanding these implements, and the results you can achieve with them, is necessary for creating a great haircut. To do your best work, buy and use only high-quality professional implements from a reliable manufacturer, use them properly, and take good care of them. Follow these simple suggestions, and your tools can last a lifetime. •



Haircutting scissors.

Scissors are the most important piece of hairdressing equipment that you will ever own!

When the scissor is held, the pivotal point should just extend beyond the first finger. This allows the blades to open easily and means that the thumb is in an ideal position.

Scissors, also known as shears, used to cut blunt or straight lines in hair. They may also be used

- ✿ To slide cut,
- ✿ Point cut,
- ✿ Texturizing

Parts of a Scissors

You are going to be working with a pair or pairs of haircutting shears every day and will rely on them to enable you to create great haircuts that satisfy your clients and keep them coming into the salon for your services.

Therefore, you should know and understand all of the parts of a typical haircutting scissors

- ✿ **The finger tang** also allows you to have more control over the shear.
- ✿ **The ring finger-hole** is where you place your ring finger. Do not use your middle finger when cutting
- ✿ **The thumb hole** the bottom hole and, should only go to, or slightly over, the cuticle.
- ✿ **The pivot** and the adjustment area are the parts that make your shears cut
- ✿ **The cutting edge** is the part of the blade that actually does the cutting.

Palming the shears. Remove your thumb from the thumb grip, leaving your ring and little fingers in the grip and finger rest. Curl your fingers in to palm the shears, which keeps them closed while you comb or part the hair

Texturizing shears.

Texturizing shears used to remove bulk from the hair. Referred to as thinning shears, tapering shears, or notching shears. The more teeth in the shear, the less hair removed per cut.



Straight razors or feather blades used when a softer effect on the ends. Razors create an entire haircut, to thin hair, or texturize in certain areas.

Clippers.

Used when creating short haircuts, short tapers, fades, and flat tops. Clippers without a guard to shave hair right to the scalp, with cutting guards of various lengths, and for the clipper-over-comb technique.



Trimmers.

These are a smaller version of clippers, and known as edgers. They remove excess or unwanted hair at the neckline and around the ears.

Sectioning clips. These come in a variety of shapes, styles, and sizes and can be made of plastic or metal.

Wide-tooth comb. This comb used to detangle hair.



Tail comb. Used to section and subsection the hair.



Barber comb. This comb used for close tapers on the nape and sides when using the scissor. The narrow end of the comb allows the shears to get very close to the head.

Cutting comb. Used for most haircutting procedures. It has fine teeth at one end and wider teeth at the other.



Activity 2

Complete a worksheet on cutting equipment

Unit 3 Cut hair to achieve a variety of looks

Cutting techniques

The art of haircutting is made of variations on four basic haircuts:

- ✿ Blunt, (Line)
- ✿ Graduated,
- ✿ Layered



In a **blunt** haircut, also known as a *one-length* haircut, all the hair comes to a single hanging level, forming a weight line. The weight line is a visual line in the haircut, where the ends of the hair hang together.

Blunt haircuts are excellent for finer and thinner hair types, because all the hair is one length, therefore making it appear thicker.

A **graduated** haircut is wedged shaped. Cutting the hair with tension, low to medium elevation, or over direction. The most common elevation is 45 degrees. In a graduated haircut, there is a visual build-up of weight in a given area. The ends of the hair appear to be stacked. Many variations can be created with graduation simply by adjusting the degree of elevation, the amount of over direction, or your cutting line.

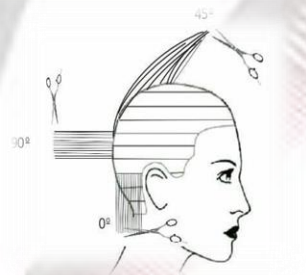


A **layered** haircut is a graduated effect achieved by cutting the hair with elevation or over direction.

Hair cut at higher elevations, usually 90 degrees and above.

Layered haircuts generally have less weight than graduated haircuts.

Layers create movement and volume in the hair by releasing weight.



Razor Cutting

A razor cut gives a very different result than other haircutting techniques.

For instance, a razor cut gives a softer appearance than a scissor cut.



Slide Cutting

Slide cutting is a method of cutting or thinning the hair in which the fingers and scissors glide along the edge of the hair to remove length. It is useful for removing length, blending shorter lengths to longer lengths, and texturizing.

Slide cutting is a perfect way to layer very long hair and keep weight at the perimeter. Rather than opening and closing the shears, you keep them partially open as you slide along the edge of the section.

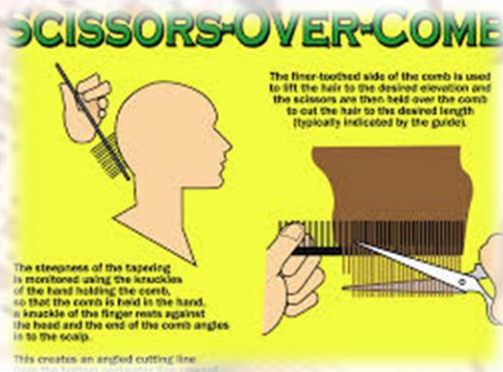
This technique performed on wet hair with very sharp scissors



Scissor over comb

This technique has been traditionally a barbering technique but now days used in hairdressing for cutting short styles on both men and woman. This technique used on either wet or dry hair and used the comb as guide to hold the hair and maintain an even lift or tension away from the head whilst you cut.

Scissors over comb is ideal for hair too short to hold between fingers start at the lower nape lift away from the head and the comb mirrors the contour of the back of the head



Thinning

Thinning is a technique done with scissors or a razor and can be used for reducing or tapering bulk from thick hair without reducing the overall length.



Activity 3

Create a poster under the following headings.

One length cut

Layered cut

Graduation cut

Style durability

Make a point of outlining the benefits of having a regular cut give your client an idea of how long the style will last and ideally because you know how long that will be get them to rebook before they leave the salon. People that do not make an appointment before they leave the salon often tend to drift beyond the normal interval times. Then when they do realise that their hair needs doing, they find that they cannot get an appointment at a time that suites them so by that time you get to work on it again the hair really needs attention

Talk though the style as you work.

Make a point talking though your styling techniques as you go as:

- ✿ Eliminates long periods of silent whilst you are working and more importantly
- ✿ It is useful to the client as they get useful advice on how to recreate a similar effect at home.

Recommend products / equipment that you use

As you work talk about how hair is styled what products used this way, they will be able to see a direct link between the effects that you have achieved on their hair with added benefits of buying those products that will help them recreate a similar effect

Activity 4

Good after care advice is about giving the client the correct advice on looking after their hair.

1. What advice should you give regarding products?
2. What advice do you need to provide regarding tools and equipment
3. What advice could you provide regarding future salon services or treatments.

Salon Practice



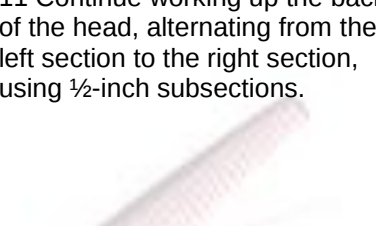
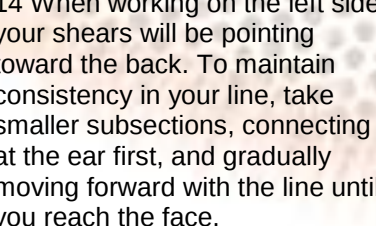
Salon practice

Points to remember

- ✿ Section and sub-section the hair before and during cutting and shaping
- ✿ Take in account critical influencing factors such as facial shapes, features, body form, hair type, hair texture and hair growth patterns
- ✿ Hold the scissors and comb in the proper cutting hold
- ✿ Section, grip, comb and cut the hair while NOT leaving the scissor and comb on the table
- ✿ Maintain good posture, tension and direction while cutting the hair
- ✿ Do a complete club cut on long hair
- ✿ Apply the same principal to cut a short or shoulder length Bob haircut.
- ✿ Section hair from the nape area and extend hair at different angles away from the scalp to feather cut the hair (layering)
- ✿ Section the hair and proceed towards the crown area to complete the feather cut
- ✿ Apply the same feather cut principle to cut short hair in layers
- ✿ Apply the same principle and technique using a thinning scissor
- ✿ Apply the same technique using a feather cut razor blade
- ✿ Apply the same feather cut principle to cut the bottom of a Bob haircut in a graduation cut
- ✿ Maintain design line throughout the cut
- ✿ Prepare the workstation for the cut

Cutting Procedure:

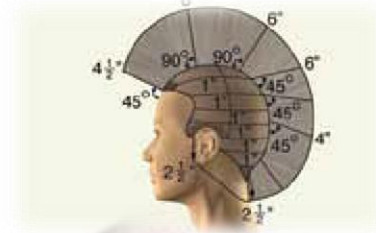
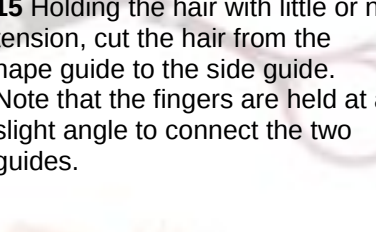
Step by step cutting a one length with a fringe		
1 Drape your client for a shampoo.	2 Shampoo and condition the hair as necessary	3 Take the client back to the styling chair. Secure a neck strip around the client's neck. Place a cape over the neck strip and fasten in the back. Fold the neck strip down over the cape so that no part of the cape touches the client's skin.
4 Detangle the hair with the wide-tooth comb	 5 To find the natural part, comb the hair back from the hairline and push the hair gently forward with the palm of the hand. Use the comb and other hand to separate the hair where it parts, or, if the natural part doesn't work for your finished style, part it the way the client will be wearing it.	 6a This haircut will use a four-section parting. Take a center part that runs from the front hairline to the nape, dividing the head in two.
 6b Find the apex of the head. Take a parting that runs from the apex to the back of the ear on both sides and clip. You have now divided the head into four sections.	7 Beginning at the nape, on the left side, take a horizontal parting $\frac{1}{4}$ to $\frac{1}{2}$ inch (0.6 to 1.25 centimetres) from the hairline, depending on the density of the hair. This creates the first subsection	 8 With the client's head upright, comb the subsection in a natural fall from scalp to ends. With your dominant hand, comb the subsection again, stopping just above the cutting line. Make sure the comb is horizontal and just above the cutting line (desired length). Cut the subsection straight across against the comb, remembering to keep your shears horizontal and parallel to the floor. Repeat on the right side, using the length of your first subsection as a guide. Check to make sure your cutting line is straight before moving on. You have now created your guideline for the entire haircut

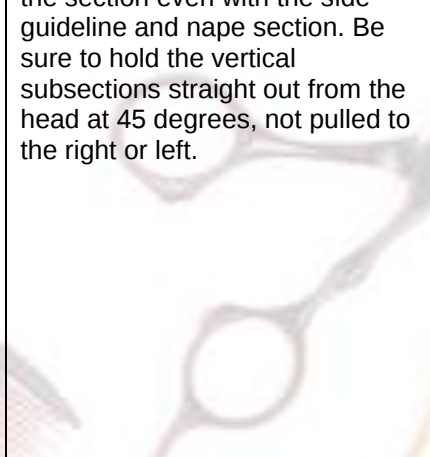
 9 If the hairline lies down nicely, an alternate way of cutting a blunt line in the nape is to comb down the subsection and hold the hair against the skin with the edge of your nondominant hand. Cut the guideline below your hand, making sure that your shears are horizontal and parallel to The floor.	 10 Take another horizontal parting, creating a subsection the same size as your previous subsection. As a rule, you should be able to see the guideline through the new subsection. If you cannot see the guide, take a smaller subsection. Comb the hair down in a natural fall, and cut the length to match the guide. Repeat on the right side.	 11 Continue working up the back of the head, alternating from the left section to the right section, using ½-inch subsections.
 12a When you reach the crown area (danger zone), pay close attention to the natural fall of the hair. Comb the hair into its natural falling position, and cut with little or no tension to match the guide.	 12b You have now completed the back of the haircut.	 13a Now move to the sides of the haircut. Beginning on the left side, take a horizontal parting and part off a portion from the back area, and use it to cut the side guideline to match in length. This will help you maintain consistency with the blunt line when connecting the back to the sides. Be sure to take a subsection that is large enough to give you an even amount of hair at the cutting line, allowing for the ears sticking out. Comb the hair from scalp to ends, release the subsection, and allow the hair to hang in a natural fall. Using the wide teeth, place the comb back into the subsection just below the ear. Slide the comb down to just above the cutting line
 13b Holding the comb parallel to the floor, cut the hair straight across just below the comb,	 14 When working on the left side, your shears will be pointing toward the back. To maintain consistency in your line, take smaller subsections, connecting at the ear first, and gradually moving forward with the line until you reach the face.	 15 An alternative approach for cutting the left side is to turn your

connecting the line to the back. Repeat on the right side. 		wrist so that your palm is facing upward and your shears are pointed toward the back of the head. This requires that you position your body slightly behind the section you are working on, with your elbow straight down. Either method gives a consistent result in your line.
 16 Before moving on, check that both sides of the haircut are even. Stand behind the client and check the lengths on both sides while looking in the mirror. Make any needed adjustments.	17 Continue working up the left side with horizontal partings, until all the hair has been cut to match the guide. When cutting the hair that falls along the face, make sure to comb the hair so it lies on the side, not the front, Of the face. Repeat on the right side	 18a Now, move directly in front of your client to cut the bangs (fringe) area. Begin by parting the hair down the middle and, using your cutting comb, find the apex of the front of the head
 18b Make a triangular parting from the apex to the centre of each eye. Leave a ½-inch subsection at the forehead and clip the rest of the hair back.	 18c Now, ask your client to close her eyes and using your cutting comb, comb the section to the bridge of the nose and cut the bang (fringe) guideline.	 19 Next, part off ½-inch subsections and, without tension, cut to match the guideline length. Continue in this manner until the bangs are completely cut
20 Sweep up cut hair from the floor and dispose of properly. 	21 In order to get a true reading of the haircut, it is best to perform a smooth blow-dry, with very little lift at the scalp. 	22 Once the haircut is dry, have the client stand. Check the line in the mirror. You should see an even, horizontal line all the way around the head. This is the time to clean up any hair at the neckline and check Where the hair falls when dry. Use the wide teeth of the comb to connect the crown area. If this section was left longer during the haircut, now is the time to connect it into the line
23 Finished looks		

Step by step cutting graduation cut

 1 Drape your client for a shampoo	2. Shampoo and condition the hair as necessary.	3 Escort the client back to the styling chair. Secure a neck strip around the client's neck. place a cape over the neck strip and fasten in the back. Fold the neck strip down over the cape so that no part of the cape touches the client's skin
4 Detangle the hair with the wide-tooth comb	 5a This haircut will use a six-section parting. Begin with a part from the front hairline just above the middle of each eyebrow back to the crown area, and clip the hair in place.	 5b Establish another part from the crown area where section one ends to the back of each ear, forming side-sections two and three. Clip these sections in place.
 5c Part the hair down the centre of the back to form sections four and five	 5d Take a horizontal part from one ear to the other across the nape area about 1 inch (2.5 centimeters) above the hairline. this section (six) is your horizontal guide section	 6 Establish your guideline by the right side of the guide to the desired length. use a horizontal cutting line parallel to the fingers. Cut the left side of the nape section the same length as the right guideline.
 7 Working upward in the left back section, measure and part off the first horizontal section approximately 1-inch wide	 8 Beginning at the center part, establish a vertical subsection approximately ½-inch (1.25 centimeters) wide. extend the subsection down to include the nape guideline. Comb the subsection smooth at a 45-degree angle to the scalp. hold your fingers at a 90-degree angle to the strand and cut	 9 Proceed to cut the entire horizontal section by parting off vertical subsections and cutting in the same manner. Check each section vertically and horizontally throughout the haircut. each completed section will serve as a guideline for the next section

 10a Beginning at the center, create another vertical subsection that extends down and includes the previously cut strands. Comb the hair smoothly at a 45-degree elevation to the head	 10b Hold the fingers and shears at a 90-degree angle to the subsection and cut. Cut the entire horizontal section this way. Make sure the second section blends evenly with the previously cut section	 11 Continue taking horizontal sections throughout the right and left back sections, and follow the same cutting procedure. the hair will gradually become longer as it reaches the apex. For example, if your nape guide was 2½-inches (6.25 centimeters) long, your upper crown section will be approximately 6-inches (15 centimeters) long
 12 Cut the crown. Maintain the length in the upper crown by holding each vertical subsection throughout the crown area at a 90-degree angle while cutting. after checking the back and crown for even blending, proceed to the left side section	 13a Establish a narrow guide section on the right side at the hairline approximately ½-inch wide. Cut side guideline to match the length in the nape. Move to the left side of the head and establish a matching guideline there.	 13b This will help you to be sure that both side sections will be the same length when the right-side section is cut later
 14 To cut the next section, establish a ½-inch parting that curves and follows the hairline above the ear back to the nape section. Smoothly comb the section, including the side guideline and part of the nape section.	 15 Holding the hair with little or no tension, cut the hair from the nape guide to the side guide. Note that the fingers are held at a slight angle to connect the two guides.	 16 Establish a horizontal section on the side, taking hair from the side and the crown area. the width of this section will vary because of the irregular hairline around the ear. this is how you will blend the side and back sections of the cut.

17 To begin cutting the side section, start at the ear, part a ½-inch vertical subsection (include the underlying guideline and a small portion of the nape section), and cut section. 	18 Continue following the same cutting procedure. take vertical subsections, comb smooth, elevate at a 45-degree angle from the head, holding the fingers at a 90-degree angle to the hair. Cut the section even with the side guideline and nape section. Be sure to hold the vertical subsections straight out from the head at 45 degrees, not pulled to the right or left. 	 19 When the left side section is complete, the hair in the uppermost part of the section should be the same length as that in the upper crown area. In the final 1-inch section, comb the vertical subsections and hold them at a 90-degree angle to the head. position your fingers at 90 degrees to the head and cut parallel to your fingers. Check the completed section horizontally to make sure the ends are even
20 Move to the right side of the head and cut the hair in the same manner as you did on the left side, using the previously established guide. Once the back and both sides are complete, move to the bang and top areas.	 21a You can create a variety of bang (fringe) designs by cutting the bang length close to that of the side guideline. Create a bang guide section along the hairline about ½-inch wide.	 21b Starting at the centre part and working on the left side of the forehead, cut to the desired length.
 22 Bring down another ½-inch section and cut this subsection of the bang section at a low elevation, to the guideline 	 23 Now take a vertical parting along the hairline that connects the guideline from the bang and the guideline from in front of the ear. Slide your hand slowly, keeping both guidelines in your grasp, and stop when you have only about a ¼ inch of both guidelines in your hand. Connecting the two guidelines will determine the angle of the cut. Complete the guideline on both sides of the head.	 24 Using the guideline you established in step 23, take ½-inch subsections and cut the top section at a 45-degree angle, blending with the sides.

25 Finish the top section by taking ½-inch vertical subsections parallel to the centre part. hold the hair up from the head at a 90-degree angle. Include hair from the crown and bang area, and cut to blend the section with the two pre-cut sections. Continue cutting in this manner until the remainder of the top section is cut. hold the hair up from the head at a 90-degree angle and check the completed cut. trim any uneven ends. the bang guide gradually increases in length to the pre-established length in the top and crown areas	 26 Once the cut is completed, use your hands to put the hair into place. Blow-dry the haircut and view the design, movement, and ends to be sure they are evenly blended.	 27 Finished look
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Step by step cutting a Layered cut		
 1 Drape your client for a shampoo	2 Shampoo and condition the hair as necessary	3 Escort the client back to the styling chair. Secure a neck strip around the client's neck. place a cape over the neck strip and fasten in the back. Fold the neck strip down over the cape so that no part of the cape touches the client's skin
4 Detangle the hair with the wide-tooth comb	 5 This haircut will use a five-section parting. Begin with a part from the front hairline just above the middle of each eyebrow back to the crown area, and clip the hair in place. establish another part from the crown area where section one ends to the back of each ear, forming side sections two and three. Clip these sections in place. part the hair down the center of the back to form sections four and five.	 6 To create the guideline, take two partings ½ inch (1.25 centimeters) apart, creating a section that runs from the front hairline to the bottom of the nape. Comb all other hair out of the way 
7  Beginning at the crown, comb the section straight out from the head, keeping your fingers parallel to the head form, and cut to the desire length. Continue working forward to the front hairline,	8  Continue cutting the guideline from the crown to the nape, rounding off any corners as you go along and making sure that	9 To maintain control and consistency while working through the haircut, separate the sides from the back by parting the hair from the apex to the back of the ear. Work through the back areas first. the parting pattern will be wedge shaped, where each section begins at the same point

making sure to stand to the side of the client	your fingers are parallel to the head form	in the crown and is slightly wider at the bottom of the nape
 10 Work through the client's right side first. take a vertical parting that begins at the crown and connects with the guideline, creating a vertical section that ends at the hairline. Keep the sections small to maintain control. Beginning at the crown and using the previously cut guideline, comb the new section to the guide, and elevate the hair straight out from the head, with no over direction. Cut the line by keeping your fingers parallel to the head and matching the guideline.	 11 Continue working with a traveling guideline to the back of the ear. repeat on the left side. When working on the left side of the back, shift your hand position so that you are now holding the section with the tips of your fingers pointing upwards and the tips of your shears pointing downwards. part from the front of the ear to the front of the other ear, including the top and side areas.	 12 Now move to the side and top section. take a section at the front hairline above the ear and begin to blend the top with the side section
 13 Continue cutting until the top and side sections are blended	14 Cut the top area using vertical partings. using the previously cut centre section as a guideline, connect to the crown, holding each section straight up at 90 degrees from the head, making sure not to over direct the hair	 15 Cross-check the top, using horizontal partings and elevating the hair 90 degrees from the head
16 Now move to the right side. Work from the back of the ear toward the face, using vertical sections, and connect to the previous section at the back of the ear and the top. Comb the hair straight out from the head at 90 degrees, removing any corners as you go. repeat on the left side. Cross-check the side sections	17 Cross-check the side sections, using horizontal partings and combing the hair straight out at 90 degrees	 18 Comb the hair down. Note the soft perimeter and rounded head shape.
19 Blow-dry and style the haircut using a vent brush to encourage movement.	20 Finished looks.	

Chapter 6

Adding / extending hair



Unit 1: Maintain effective and safe methods of working when attaching hair

Unit 2: Plan and prepare to attach hair

Unit 3: Remove pieces of hair

LEARNING OBJECTIVES:

When you have finished this chapter, you should:

- 🦋 Know the job roles that people within the hair industry
- 🦋 Know the working patterns of people working within the sector
- 🦋 Know the career opportunities available to you in the future
- 🦋 Understand the services associated with hairdressing and barbering

KEY TERMS:

Beard/Moustache Trimming Salon Blow-Drying Hair Extensions
Setting Hair Up Colour Correction Highlights Shaving Colouring
Lightening Consultation Relaxing Styling Lotion
Botox Hair Shaft Cuticle Layer Cortex Layer

CAREERS:

- 🦋 Cleaner at a salon
- 🦋 Receptionist
- 🦋 Shampooist
- 🦋 Operator
- 🦋 Stylist
- 🦋 Colour Technician
- 🦋 Junior hairdresser
- 🦋 Hairdresser
- 🦋 Supervisor
- 🦋 Manager
- 🦋 Salon owner
- 🦋 Hairdressing consultants
- 🦋 Image and deportment advisor
- 🦋 Retail consultants
- 🦋 Store merchandiser
- 🦋 Stylist on board a Cruise Liner
- 🦋 Field technician
- 🦋 Teacher
- 🦋 Trichologist (hair doctor)
- 🦋 Salon owner
- 🦋 Assistant Hairdresser

SKILLS DEVELOPMENT:

- 🦋 Organisational skills
- 🦋 Decision making
- 🦋 Social skills
- 🦋 Communication skill
- 🦋 (verbal and non-verbal)
- 🦋 Teamwork Skills
- 🦋 Respect
- 🦋 Integrity
- 🦋 Positive attitude
- 🦋 Enthusiasm

ENTREPRENEURSHIP:

- 🦋 Selling products
- 🦋 Promotional day
- 🦋 Promote new services
- 🦋 Offer of updated techniques

Introduction

Why are extension services so popular? The answer is obvious people choose hair extensions to make their hair longer than it already is and, in a world, where people no longer want to wait for hair to grow. It provides a relatively quick, temporary solution to their needs.

The term hair extensions now cover a wide variety of natural and synthetic pre-formed and post-formed hair additions. Applied as single pieces be woven, stitched clipped, or bonded to the natural hair making the hair fuller and longer.

Unit 1: Maintain effective and safe methods of working when adding extensions

You will use two different types of hair extension in this chapter.

1. **Clip on extension** – is a quick and simple way of adding pre-coloured hair to create a new longer hairstyle effect that will last for an event or an evening out.
2. **Self –adhesive extension** – that is pre-coloured with weft of hair that have sticky peel back strip on double sided type positioned so that they stick to the hair close to the scalp. The effect created will last longer but need careful removal by trained people using chemicals that unstick the wefts.

Service timings

Different extension services take different lengths of time you need to be clear in your own mind how long these services take. For example, a particular head of clip in extensions is going to take less time than a whole head of self-adhesive extensions. So therefore, the cost, implication in relation to materials and cost of labour will vary from one business to another



Synthetic hair wefts

Most temporary hair extensions are made of “manmade” fibres (acrylic and nylon) and need special care and handling. These types of extension have specific advantages and disadvantages.

Hair extension type	Advantage	Disadvantage
Clip on synthetic wefts	Very easy and relatively quick to apply.	Needs careful handling tends to get matted very easily
	Colours do not fade they are pre-colour in a variety or single or multi-toned effects.	Brushed regularly when applied to avoid tangling.
	Can be cut	Avoid heat styling as all synthetic extensions are very susceptible to becoming misshapen or damaged when excess heat is applied
	Bulk up fine hair or hair that lack volume	Can cause traction alopecia if incorrectly applied.
	Can provide a quick cost-effective solution to people who want longer hair	
	Removed at home with care providing the right advice	
Self-adhesive wefts.		
	Last for a long time with care and attention.	Need careful home maintenance so advise products are essential to maintain the look
	Provides a cost –effective solution to the need for long lasting hair extensions.	Removed at the salon by trained staff.
	Far quicker to apply than single pre- bonded hot extension systems.	Avoid heat styling, as all synthetic extensions are very susceptible damaged
	Colour do not fade they are pre-coloured in a multitoned effect.	Can cause traction alopecia if incorrectly applied.
	Be cut easily to suit or achieve the desired effect.	
	Bulk up fine hair or hair that lacks volume.	

Unit 2: Plan and prepare to attach hair.

It is of upmost importance to find out if your client is suitable candidate for extension service.

Your client may be very keen to have them, but you need to safe guard the salon's good name and remove the possibility of legal action taken later

- ✂ Conduct a thorough consultation with the client
- ✂ Correctly identify any contra –indication to the extension service
- ✂ Carry out the necessary test upon the client
- ✂ Ask the client the right sorts of questions
- ✂ Record the response that the client makes in answer to your questions
- ✂ Clean and prepare the hair

Consultation

You need to consider many things before you venture into the process of adding hair. It may be exciting piece of work for you to do and make a long day much shorter.

Wanting hair extensions is not enough they have to be suitable appropriate and achievable.

Style suitability

This is an important aspect of consultation. Any work that you are doing needs planning beforehand. When you add hair to the client's existing hair it will change the appearance dramatically by making the roots a lot fuller than they were to start with. You need to make this clear to the client, as it is very difficult for anyone to visualise what the difference will be after the service is finished.

Hair condition

Test the hair for elasticity strength and suitability to look for damage or over-porous hair. Weakened hair for any reason is a contra-indication for hair extensions.

Hair tendency

This is also a major consideration if the hair is curly; it may need smoothing and straightening first.

Hair density

The amount of natural hair will affect the choice of extension and the amount needed to provide an overall balanced result.

Hair styling

It is unlikely that new wefts of hair applied without any form of styling or cutting post-application. The wefts are not the hairstyle themselves they are the material that you add in order to create a new style afterwards.

Looking for contra-indications to hair extension services

Skin sensitivity – This is another consideration. You should ask the client if they have any sensitivity issues relating to products intolerances or to synthetic materials

Allergies - This is not skin sensitivity. Someone may have a sensitivity to certain things but it does not mean that they are allergic to them the allergic reaction to something quite different and potentially far more dangerous.

Hair and skin disorders – Look for the obvious signs that something is wrong.

Medical advice – if you are unsure of any indications that you see or hear of from asking the client questions then the service must be postponed at least until the client has sought medical advice

Carry out the necessary tests

Clip-on hair extensions – You need to check the hair's strength and elasticity to make sure that the added weight to the hair does not create a pressure and tension that the hair will not be able to sustain and hence cause damage or breakage.

Self-stick extensions – In addition to a pull test and an elasticity test you should also do a skin test with the removal chemicals that you will be using in several weeks' time. There is no point in applying the extensions if they cannot be removed safely

Asking the client, the right questions

You cannot find out enough information about the client by examination alone. In addition to the questions, you should ask covering the previous aspects you need to find out whether the client has had an extensions service before and whether they had any problem with them. Ask the client how they intend to manage their hair themselves Most of the difficulties that the client encounter is to do with having more hair than they have been used to before.

Record the client's responses

Make sure that you record the responses to the questions that you ask as well as the details of the tests that you perform.

Activity 1

Write the different tests for extension and their purpose

Activity 2

Create a client record card

Prepare the hair for extensions

After conducting your consultation, you need to select the appropriate extensions. Both clip-on and self-adhesive wefts are available in a range of natural and vivid fashion shades. You will have found out during your consultation what result the client's expecting.

Hair extensions applied to a point that will create a horseshoe section (on top of head) around the head at the temples. If you continue further up than this, they will stick out from the head too much and show you would need three or four wefts on both sides and five to seven at the back a total of 11 -15 would be enough although some thicker densities could take even more. As clip-on extensions can be bulkier because of the comb/clip attachments, and need fewer as they will stick out at the sides.

Before continuing with the application, you should wash condition and dry the hair into style this is particularly important for longer lasting extensions as this could be the least time the scalp would get a good rubbing to remove dead skin cells for some time.

When hair extensions have been in for some time it is quite normal to see dandruff forming at or near the scalp. This is because it is very difficult to remove the shedding layers of the epidermis when the extensions attachment is close to the scalp. This removed by shampooing the hair

Final shaping and styling

The reasons why clients have extensions are because they want their hair to appear longer and/or thicker but sometimes the effect created by the extensions is then out of balance with the reminder of their own hair and needs further work.

So, after applying the extensions and finish to the hair you should show the client the effect to see if it compares with what they expected.



Unit 3: Remove pieces of hair

Clip- on extensions

Clip-on hair extensions removed by the client themselves. Show them how they attached and how the clips snap into position.

Self – adhesive extensions

The amount of time that hair extensions last is difficult to estimate. The durability of the effect is always directly proportionate to the handling and care that the client provides herself. So, with this in mind a client can be told that they can expect them to last up to a certain point then after this they must be removed so that they don't become too difficult to manage or cause any longer lasting damage to the hair.

Unlike clip in extensions, the self-adhesive removed professionally with a revisit to the salon.

You need to make this clear to the client right from the start. At the point where the hair with the attached extension has grown more than 1cm away from the root area (which is approximately four weeks) the hair will start to become harder to manage. It will be more difficult to shampoo as rubbing will work the edges of the extension away from the hair. Brushing/combining will be more problematic as the hair will keep on snagging and tangling removed even if a new set are to be applied.

Self-adhesive extensions use special chemical sprays or solutions to dissolve the bond attaching them into the hair. When this applied /sprayed on the self-cling tape, it quickly reduces the adhesion and therefore releases the weft from the hair

Salon Practice



Salon practice:

Step by step: Technique for adding clip on extensions

 1 Drape your client for a shampoo	2  Shampoo and condition the hair as necessary	3 Escort the client back to the styling chair. Secure a neck strip around the client's neck. place a cape over the neck strip and fasten in the back. Fold the neck strip down over the cape so that no part of the cape touches the client's skin
 4 Detangle the hair with the wide-tooth comb	5. Dry hair 	 6. Section hair
 7. Starting at the lower nape section off the hair into neat areas securing the length out of the way.	8. Backcomb the section near the root to provide an area for the clip-on extension to bond to. Apply a little hairspray to help fix the hair.	9. Select your extension making sure that the hair is free from tangles and that the snap-in clip is open and ready to use
 10. Clip-on the extension along the weft and into the backcombed section of the hair snap the clips close to lock into place	11 Continue the step2-4 around the head until you reach a point near to the temple area	12. Drop the upper section over the extensions and style to create the finished effect.
13. Finished look		

Step by step: Adding self-adhesive hair extensions.

1  Drape your client for a shampoo	 2 Shampoo and condition the hair as necessary	3 Escort the client back to the styling chair. Secure a neck strip around the client's neck. place a cape over the neck strip and fasten in the back. Fold the neck strip down over the cape so that no part of the cape touches the client's skin
 4 Detangle the hair with the wide-tooth comb	 5. Dry hair	 6. Section hair
7. Select your extension making sure that the hair is free from tangles and that the snap-in clip is open and ready to use	 8. Starting at the lower nape section off the hair into neat areas securing the length out of the way.	 9. Apply the weft directly onto the natural hair
10. Take a fine section of natural hair (about ¼cm) above the tape and drop it down over the tape pressing the natural hair into the topside of the tape to ensure that the tape is undetectable	11. Finished look 	

Step by step: Removing self-adhering extensions from dry hair.

1. Take the client to the styling chair



2. Drape your client

3. Detangle the hair with a brush



4. Section hair



5. Starting at the lower nape section off the hair into neat areas securing the length out of the way.

6. Pour a small amount of removal solution onto a cotton wool pad. Wipe the top side of the tape near the root area then lift the tape weft and wipe the underside of the weft



7. Allow the removal solution to penetrate for 30 seconds to 1 minute

8. Hold the end of the extension's hair contained in the tape and gently pull it away from the hair and scalp the weft comes away easily from the natural hair in a matter of seconds.



9. The hair and scalp should be shampooed and conditioned thoroughly and carefully to remove any dead skin cells or product build-up.

10. It can then be dried in preparation for other salon services

11. Finished look



Chapter 7

Relaxing and Straitening of hair



Unit 1: Chemical relaxers

Unit 2: Keratin Straightening Treatments

LEARNING OBJECTIVES:

When you have finished this chapter, you should:

- Know the job roles that people within the hair industry
- Know the working patterns of people working within the sector
- Know the career opportunities available to you in the future
- Understand the services associated with hairdressing and barbering

KEY TERMS:

Beard/Moustache Trimming Cutting Salon Blow-Drying
Setting Hair Up Colour Correction Highlights Shaving Colouring
Hair Extensions Consultation Relaxing
Styling Lotion Botox Hair Shaft Cuticle Layer Cortex Layer

CAREERS:

- Cleaner at a salon
- Receptionist
- Shampooist
- Operator
- Stylist
- Colour Technician
- Junior hairdresser
- Hairdresser
- Supervisor
- Manager
- Salon owner
- Hairdressing consultants
- Image and deportment advisor
- Retail consultants
- Store merchandiser
- Stylist on board a Cruise Liner
- Field technician
- Teacher
- Trichologist (hair doctor)
- Salon owner
- Assistant Hairdresser

SKILLS DEVELOPMENT:

- Organisational skills
- Decision making Social skills
- Communication skill
(verbal and non-verbal)
- Teamwork Skills
- Respect
- Integrity
- Positive attitude
- Enthusiasm

ENTREPRENEURSHIP:

- Selling products
- Promotional day
- Promote new services
- Offer of updated techniques

Introduction

Throughout hairdressing history, people with very tightly curled hair have wanted less curly smoother looks. Most early relaxing processes were physically based and temporary in their effects, but today's chemical techniques can produce effective and permanent results. Chemical hair relaxer is the process of permanently rearranging the basic structure of overly curly hair into a straight form. When done professionally, it leaves the hair straight.

Unit 1: Chemical hair relaxing.

Chemical hair relaxing is a process or service that rearranges the structure of curly hair into a straighter or smoother form. Whereas permanent waving curls straight hair, chemical hair relaxing straightens curly hair.

Other than their objectives being quite different, the permanent wave and relaxer services are very similar. In fact, the chemistry of thio relaxers and permanent waving is the same. In addition, even though the chemistry of hydroxide relaxers and permanent waving may be different, all relaxers and all permanents change the shape of the hair by breaking disulphide bonds.

The two most common types of chemical hair relaxers are

- Thio (ammonium thioglycolate) and
- Sodium hydroxide.

Extremely Curly Hair

Extremely curly hair grows in long twisted spirals, or coils. Cross-sections vary in shape and thickness along their lengths. Compared to straight or wavy hair, which tends to possess a fairly regular and uniform diameter along a single strand, extremely curly hair is irregular, exhibiting varying diameters along a single strand.

The thinnest and weakest sections of the hair strands are located at the twists these sections bent at an extremely sharp angle and stretched the most during relaxing. A chain is only as strong as its weakest link, and hair is only as strong as its weakest section. Hair breaks at its weakest point. Extremely curly hair usually breaks at the twists because of the inherent weakness in that section and because of the extra physical force that is required to straighten it.



Thio Relaxers

Thio relaxers use the same active ingredient as in permanent waving, but at a higher concentration and a higher pH (above 10). Thio relaxers are also thicker, making them more suitable for application as a relaxer.

Thio relaxers break *disulfide bonds* and soften hair, just as in permanents. After enough bonds are broken, the hair is straightened into its new shape, and the relaxer is rinsed from the hair. Blotting comes next, followed by a neutralizer.

Thio Neutralization

The neutralizer used with thio relaxers is an oxidizing agent, usually hydrogen peroxide, just as in permanents. The oxidation reaction caused by the neutralizer rebuilds the disulfide bonds that were broken by the thio relaxer.

Thio Relaxer Application

The application steps for thio relaxers are the same as those for hydroxide relaxers, although the neutralization procedure is different.

Relaxer applied with

- Bowl and brush,
- Applicator bottle, or the
- Back of a hard rubber comb.



Although all thio relaxers follow the same procedures, different application methods are used for

- Virgin relaxers and
 - Retouch relaxers.
-
- You will follow the same preparation steps as for virgin hydroxide relaxers.
 - A light shampoo before a thio relaxer is optional.
 - Do not forget to perform an analysis of the client's hair and scalp.
 - Test the hair for elasticity and porosity on several areas of the head.
 - Iron is required for each section. (The added heat and mechanical pressing help to make these formulas more effective than standard thio relaxers.)
 - The hair is neutralized and blow-dried.
 - The service can take several hours and is not always appropriate for extremely curly hair or some color-treated hair.

CAUTION

Hair that has been treated with a hydroxide relaxer is unfit for permanent waving and will not hold a curl. The disulfide bonds have been permanently broken and can never be re-formed.

If the hair has poor elasticity, do not perform a relaxer service

Hydroxide Relaxers

The hydroxide is the active ingredient in all **hydroxide relaxers**, which are very strong alkalis with a pH over 13.

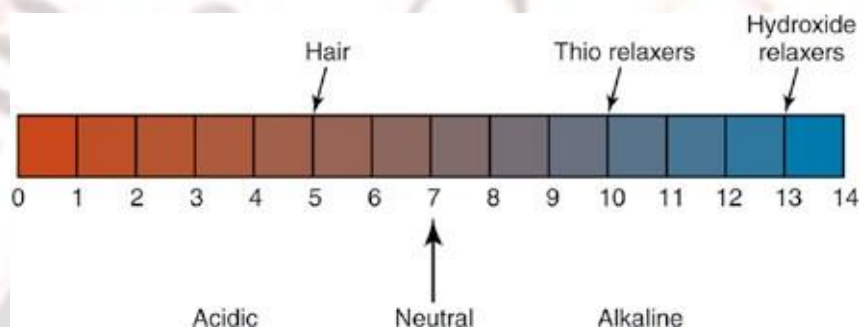
Sodium hydroxide, potassium hydroxide, lithium hydroxide, and guanidine hydroxide are all types of hydroxide relaxers, which can swell the hair up to twice its normal diameter.

Hydroxide relaxers are not compatible with thio relaxers, permanent waving, or soft curl perms because they use a different chemistry.

Thio relaxers use thio to break the disulfide bonds.

Hydroxide relaxers have a pH that is so high that the alkalinity alone breaks the disulfide bonds. The average pH of the hair is 5.0, and many hydroxide relaxers have a pH over 13.0. Since each step in the pH scale represents a tenfold change in concentration, a pH of 13.0 is 100 million (100,000,000) times more alkaline than a pH of 5.0

Hydroxide relaxers break disulfide bonds differently than in the reduction reaction of thio relaxers.



Types of Chemical Hair relaxers:

- Sodium hydroxide (**lye**)
- Lithium hydroxide (**no-lye**)

Lye-Based Relaxers

Sodium hydroxide relaxers are commonly called lye relaxers.

Sodium hydroxide is the oldest, and still the most common, type of chemical hair relaxer.

No-Lye Relaxers

Lithium hydroxide relaxers are often *no mix-no lye* relaxers. Although technically they are not lye, their chemistry is identical, and there is very little difference in their performance.

They reduce scalp irritation; they do not reduce hair damage.

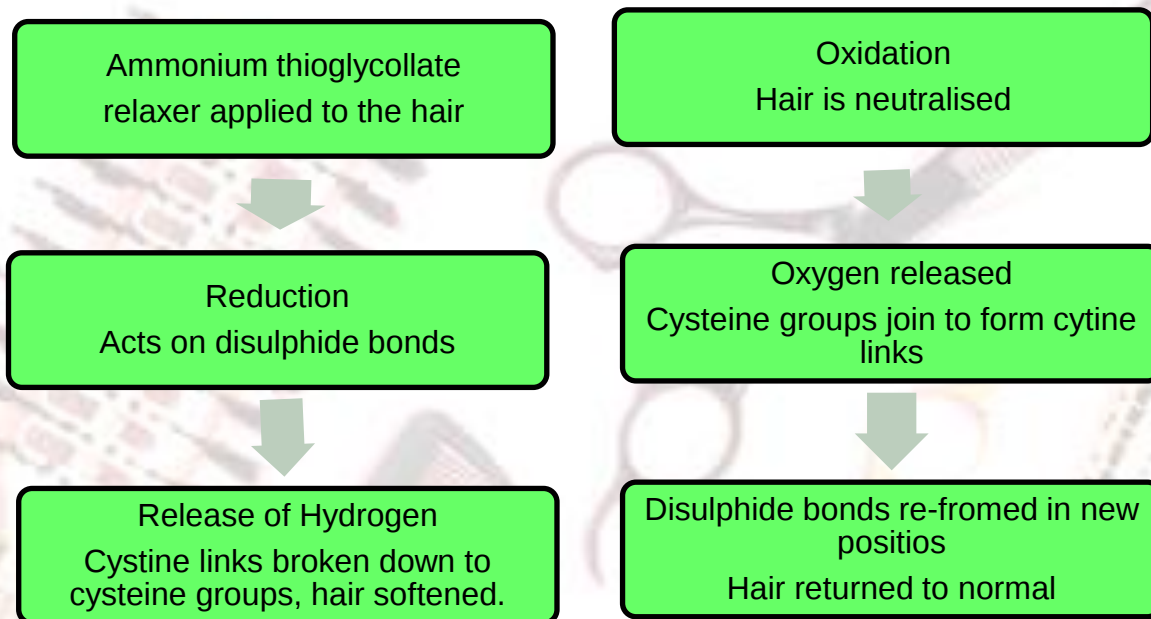
They swell the hair slightly more than other hydroxide relaxers, and they are also more drying, especially after repeated applications.

Differences between lye and no - lye



Sodium hydroxide (lye)	Lithium hydroxide (no-lye)
1. More drastic in action 2. Straighten more permanently 3. pH level high in alkaline	1. Less drastic in action 2. Causes less irritation on the skin 3. pH level also alkaline but have a lower level

Relaxing Hair: Two-stage reduction and oxidation



Base and No-Base Relaxers

Hydroxide relaxers are available in base and no-base formulas.

- **Base cream**, also known as **protective base cream**, is an oily cream used to protect the skin and scalp during hair relaxing. **Base relaxers** require the application of a protective base cream to the entire scalp prior to the application of the relaxer.
- **No-base relaxers** do not require the application of a protective base cream. They contain a protective base cream that melt at body temperature. As the relaxer is applied, body heat causes the protective base cream to melt and settle out onto the scalp in a thin, oily, protective coating. No-base relaxers are an improvement on the protection provided to the skin by the oils in all hydroxide relaxers. For added protection, protective base cream may applied to the entire hairline and around the ears, even with no-base relaxers.

Relaxer Strengths

Most chemical hair relaxers are available in three strengths: mild, regular, and super. The difference in strength of hydroxide relaxers parallels the concentration of hydroxide.

- **Mild-strength** for fine, color-treated, or damaged hair.
- **Regular-strength** for normal hair texture with a medium natural curl.
- **Super-strength** for maximum straightening on very coarse, extremely curly, and resistant hair.

When in doubt, always choose the gentler alternative: mild instead of regular or regular instead of super.



Strand Testing

Strand testing during processing will help to tell you when the hair is sufficiently relaxed. After the relaxer is applied, stretch the strands to see how fast the natural curls removed. You may also smooth and press the strand to the scalp using the back of the comb, the applicator brush, or your finger. **Be gentle!**

If the strand remains smooth, it is sufficiently relaxed. If the curl returns, continue processing. Processing time will vary according to the strength of the relaxer, hair type and condition, and the desired results

Hydroxide Neutralization

Unlike thio neutralization, **hydroxide neutralization** is an acid–alkali neutralization that neutralizes (deactivates) the alkaline residues left in the hair by a hydroxide relaxer and lowers the pH of the hair and scalp; hydroxide relaxer neutralization does not involve oxidation or rebuilding disulfide bonds.

The pH of hydroxide relaxers is so high that the hair remains at an extremely high pH, even after thorough rinsing. Although rinsing is important, rinsing alone does not neutralize (deactivate) the relaxer, nor does it restore the normal acidic pH of the hair and scalp.

Therefore, the application of an acid-balanced shampoo or a normalizing lotion neutralizes any remaining hydroxide ions to lower the pH of the hair and scalp.

Some neutralizing shampoos intended for use after hydroxide relaxers have a built-in pH indicator that changes color to show when the pH of the hair has returned to normal.

The neutralization of a hydroxide relaxer does not rebuild the disulfide bonds. Since the disulfide bonds that have been broken by hydroxide relaxers re-formed by oxidation, application of a neutralizer that contains an oxidizing agent will not be of any benefit and will only damage the hair



New products are being launched all the time. Always check with the manufacturer's instructions, particularly for processing times suitable for different hair textures and types.

SCIENCE BIT! THE PRINCIPLES OF RELAXING HAIR

Two-step process

The chemistry of hair relaxing with a thioglycolate derivative is a two-step process, like permanent waving. The disulphide bridges in the cystine links between the keratin chains in the hair are reduced (broken) by the action of the ammonium thioglycolate in the relaxing cream/gel/lotion. This softens the hair, and then be moulded into its new relaxed shape followed by neutralization, which is an oxidation process (a reaction with oxygen). Cystine groups pair up again to form cystines, and the disulphide bridges reform in new positions.

One-step process

Sodium hydroxide breaks down the disulphide bonds in the hair by 'Hydrolysis' – that is, the breakdown of a substance by and with water. Cystine groups separated into cysteine, and sulphuric acid formed, continued processing produces Lanthionine – another amino acid – and other single sulphur links. The hair softens and relaxes, tight curls, and the hair moulded into a more relaxed shape. When a sufficient degree of relaxation reached, the hair shampooed with an acid-balancing neutralizing shampoo, which returns to its normal acid state. No oxidizing neutralizer is used.

This one-step chemical process differs from the relaxing and perming processes using ammonium thioglycolate reduction followed by oxidation. It is very important to vet very closely the subsequent use of other chemical processes on the chemically relaxed hair because the basic nature of the hair been changed. Fewer disulphide bridges are now present, so further reduction processes should not be used

Once the hair has been relaxed with sodium or non-sodium compounds, the structure of hair is permanently changed. With only one sulphur bond the hair can never be permed.

Relaxing faults and what to do about them

Problems	Possible cause	What to do
Hair breakage before relaxing	■ Poor dressing or the result of previous relaxing methods ■ Poor condition	■ Do not relax the hair, wait until improved ■ Refer to your senior.
Hair breakage after relaxing	■ Over-processing ■ Relaxers too strong or poor neutralizing	■ Condition if possible ■ Refer to your senior
Bald areas	■ Traction baldness due to poor relaxing or over-processing	■ Do not relax the hair ■ Avoid tension and treat gently
Sore scalp	■ Harsh treatment (e.g., combing) or sign of disease ■ Relaxers too strong or left on too long	■ Do not relax the hair ■ Wait until condition improved ■ Refer to your senior
Discoloration or pink colour	■ Metal's present ■ Wrong relaxer used or over-processing	■ Test and check, recondition, colour rinse ■ Avoid using further chemicals
Hair too curly	■ Not relaxed enough ■ Wrong method chosen or not normalizing sufficiently.	■ Condition the hair ■ Choose the correct method and relax again after two weeks if the condition permits.

Case Study

Ntebo hair is shoulder length normal texture and medium density. The hair was relaxed three months ago with sodium hydroxide relaxer and the natural hair has a medium curl pattern. There is no artificial hair colour on the hair. The ends of the hair are dry and will need cutting

Take all in formation given and explain

- What service will you recommend
- With what product and
- How will her service be conducted?

Unit 2: Keratin Straightening Treatments

Keratin straightening treatments (also called smoothing treatments or Brazilian keratin treatments) are available to salon professionals and are widely used.

Keratin straightening treatments contain silicone **polymers** and **formalin** or similar ingredients, which release formaldehyde gas when heated to high temperatures. Some keratin straightening treatments marketed as *formaldehyde free* found to contain formalin; some other formulas simply use different aldehydes.

Do not confuse these treatments with simple **keratin conditioning treatments**.

Keratin alone will not straighten hair.

Keratin straightening treatments work by fixing the keratin in place in a semi-permanent manner; they do not break bonds.

Once the treatment is applied, the hair blown dry, and a flat iron set at 180 degrees.

Use on narrow sections, coating the hair. Each section flat ironed several times, and the procedure takes about two hours or more for longer or very dense hair.

Formalin is reactive to proteins and creates a chemical link or bridge with them when heated. Depending on the size of the salon, the type of ventilation system in place, and the number of technicians simultaneously performing the service, the formaldehyde released during the process has the potential to exceed the maximum concentration allowed by OSHA (Occupational Safety and Health Administration)

Because the coating breaks down over time, the client exposed to release vapours even when the treatment itself is complete.

Recommended that the client wait at least seventy-two hours after the treatment before taking a shower heat from the shower can accelerate release of the vapours.

Generally, keratin-straightening treatments eliminate up to 95 percent of frizz and curl and last three to five months. They are not usually appropriate for extremely curly, tightly coiled hair. It is essential to conduct a detailed consultation before performing a keratin straightening service, so the client will understand what to expect from the service, based upon condition of hair, chemical history, and degree of curl.

You will need to discuss the following:

- The client's recent hair history, including all chemical treatments that may still be on the hair and the products used.
- Home-care maintenance during the three-day (seventy-two hour) period after the service is performed, as described below:
 - Hair shampooed for three days (seventy-two hours) after the service.
 - With most systems, the client should avoid getting any moisture into hair for seventy-two hours. If the hair gets damp, blow-dry immediately and go over lightly with a flat iron on low heat setting.
- The client should wear her hair down, and she should not use pins, clips, ponytail holders, or sunglasses to hold the hair back.
- Determine the length and density of the client's hair before quoting a price.

Preconditioning before a Keratin Straightening Treatments

Preconditioning equalize the porosity of the hair, taking it to a healthier level. Extremely over processed, damaged, or very curly, shampoo and deep condition prior to beginning the service.

Permanent Color/Highlights and Keratin Straightening Treatments

Clients may have a permanent hair color or highlighting service before the keratin straightening treatments. For those clients, be sure to use a regular/mild shampoo during the hair color service. Follow the manufacturer's directions regarding the use of a clarifying shampoo before the treatment product is applied.

Do not use a clarifying product on a client that has 70 percent or more highlights.

Toners or Demi-Gloss and Keratin Straightening Treatments

If the client wishes to have a demi-gloss treatment, done at least three to five days after the keratin treatment to prevent color loss and to avoid wetting the newly straightened hair. However, since keratin-straightening treatments do coat the hair, a strand test may show that the product chosen will not cover the existing cuticle coating to the desired degree.



Brazilian blow dry

What is a Brazilian Blow-dry?

The Brazilian blowout is a salon service that uses a chemical mix of formaldehyde and keratin proteins to recondition and protect the hair fibres from water and heat damage. The process takes between 90 and 150 minutes depending on the length of the hair. First, the hair is soaked with a keratin infused lotion, blow-dried and ironed straight in order to seal the protein within the hair.

After the treatment, hair may not be wet or shampooed for the following 4 days, and avoid anything that would cause kinks or bends wearing hairbands or glasses on your head or putting it behind your ear.

There are different keratin mixes, with different percentages of formaldehyde it is worth doing your research to find a salon that specialised in this kind of treatment, as a badly applied Brazilian blowout can damage your hair instead of improving its condition. Popular brands included Brazilian Keratin Treatment, the Brazilian Blowout, Brazilian Hair Straightening and Nano-keratin.

There are several home Brazilian products on the market but they are not as long lasting as a salon treatment.

Does It Really Straighten Hair?

A keratin blow-dry is not a straightening treatment, but a smoothing one. If you naturally have wavy hair, it will become straighter and smoother but for poker straight tresses you will still need to blow-dry or use straightening irons. If you have curly hair, you will still have curly hair after the treatment but it will be less frizzy and much easier to style.

The Brazilian blow-dry doesn't change the chemical bonds that define the texture of your hair, so unlike a Japanese straightening treatment your hair will go back to its natural texture as the keratin treatment wears off. This also means you can curl your hair as much as you want, even a perm.

Let us talk about Formaldehyde – Are Brazilian Blowout safe

There is no real Brazilian blow-dry treatment that does not use formaldehyde, as it is this chemical that smooths the hair. However, the amounts of this organic compound vary.

As a user, you are generally safe, as the lotion will never touch your skin (The stylist will avoid applying it to your roots). However, the formaldehyde fumes are the real risk, as they are released when the hair is dried and flat-ironed. This is mainly a risk for the stylist, and a respectable salon will take measures to reduce the risk:

Stylist and possibly you will be wearing masks during the treatment

The treatment will happen in a well-ventilated area, near a window and often with a fan to ensure air current.

However, if the salon does not have this sort of safety measures, or you are very concerned about the (legally safe) amounts of formaldehyde then you are better avoiding this treatment and looking at alternatives. Some so-called keratin blow-dries have no formaldehyde, but they are little more than intensive conditioning treatments and will not last as long or produce the same results.

What to do before and after a keratin blow-dry to get best results

Right before a Brazilian Blow-Dry you should:

- If you use relaxers on your hair, have it done **two weeks before** you blow-dry.
- Book a cut if you are changing your style.
- Dye your hair **immediately before**, the treatment will lock the colour and add shine, besides improving the condition of your hair.

After your treatment:

- Book a cut to trim the ends and finish your style **right afterwards**.
- Do not tie or wet your hair for **4 days**. If your hair gets wet or a ridge develops overnight, blow-dry and straighten it out with flatirons.
- Avoid using any styling products in your hair for **4 days**.
- Avoid swimming for **4 days**.
- Wait **two weeks** before colouring or highlighting your hair (or do it right before).
- **After a month**, you can repeat the treatment again. You will need to re-do your whole head **every 2 or 3 months**, or as needed depending on your hair type and how quick it grows.
- Wash your hair using specially formulated products without sulphates that you can buy at your salon. This will extend the life of your Brazilian blowout.

Most people who have a Brazilian blow-dry rely on this treatment to make their hair shiny, smooth and manageable and reduce the time they spend styling it, and come back to the salon repeatedly. It's great for damaged, frizzy and unruly hair that needs a dose of TLC, but can also reduce the blow-dry time in half

How is it different from a Japanese Hair Straightening Treatment?

Japanese Hair Straightening treatments are to straighten hair what perms are for curls. A solution is applied to the hair to break the bonds that give hair its natural texture; the hair is blow-dried and flat-ironed into a straight style. A neutraliser is applied to seal the style. Process takes a few hours and will last about 6 months. Which is twice as long as most Brazilian straightening treatments.

However, if you get a Japanese Straightening treatment, your hair will not hold a curl. It will be permanently straight and it will remain like that until new hair grows. If you want to have straight hair, every morning when you wake up, no styling needed, Japanese hair straightening is for you. If you just want to reduce frizz, improve the condition of your hair and style it straight when you want to, then Brazilian blow-dry is your best choice. You will need to wait about 2 weeks before you can have Japanese straightening after a Brazilian blowout.



Activity 1

Work out a maintaining plan for a client that had a Brazilian done

Salon practice



Salon practice:

Step by step Applying Thio Relaxer to Virgin Hair		
1 Perform an analysis of the hair and scalp. Perform tests for porosity and elasticity.	2 Drape the client for a chemical service. To avoid scalp irritation, do not shampoo the hair prior to a thio relaxer. The hair and scalp must be completely dry prior to the application of a thio relaxer.	3 Part the hair into four sections, from the center of the front hairline to the center of the nape, and from ear to ear. Clip the sections up to keep them out of the way
4 Apply protective base cream to the hairline and ears. Option: Take ¼-inch to ½-inch (0.6 to 1.25 centimeters) horizontal partings, and apply a protective base cream to the entire scalp. Always follow the manufacturer's directions, and the procedures approved by your instructor	5 Wear gloves on both hands. Begin application in the most resistant area, usually at the back of the head. Make ¼-inch to ½-inch (0.6 to 1.25 centimeters) horizontal partings, and apply the relaxer to the top of the strand first, and then to the underside. Apply the relaxer with an applicator brush, or with the back of the comb, or with your fingers. Apply relaxer 0.6 to 1.25 centimeters away from the scalp, and up to the porous ends. To avoid scalp irritation, do not allow the relaxer to touch the scalp until the last few minutes of processing.	6 Continue applying the relaxer, working your way down the section toward the hairline.
7 Continue the same application procedure with the remaining sections. Finish the most resistant sections first.	8 After the relaxer has been applied to all sections, use the back of the comb or your hands to smooth each section. Never comb the relaxer through the hair.	9 Process according to the manufacturer's directions. Perform periodic strand tests. Processing usually takes less than twenty minutes at room temperature. Always follow manufacturer's processing directions
10 During the last few minutes of processing, work the relaxer down to the scalp and through the ends of the hair, using additional relaxer as needed. Carefully smooth all sections using an applicator brush, your fingers, or the back of the comb.	11 Rinse thoroughly with warm water to remove all traces of the relaxer.	12 Shampoo at least three times with an acid-balanced shampoo. It is essential that all traces of the relaxer be removed from the hair. Optional: Apply the pre-neutralizing conditioner, and comb it through to the ends of the hair. Leave it on for approximately five minutes and then rinse. Always follow the manufacturer's directions and the procedures approved by your instructor
13 Blot excess water from the hair.	14 Apply thio neutralizer in ¼- to ½-inch (0.6 to 1.25 centimeters) sections throughout the hair and smooth with your hands or the back of the comb	15 Process the neutralizer according to the manufacturer's directions.
16 Rinse thoroughly, shampoo, condition, and style		

Step by step Thio Relaxer Retouch

 1 Perform an analysis of the hair and scalp. Perform tests for porosity and elasticity.	2 Drape the client for a chemical service. To avoid scalp irritation, do not shampoo the hair prior to a thio relaxer. The hair and scalp must be completely dry prior to the application of a thio relaxer retouch.	3 Divide the hair into four sections, from the center of the front hairline to the center of the nape, and from ear to ear. Clip sections up to keep them out of the way
 4 Wear gloves on both hands. Apply a protective base cream to the hairline and ears, unless you are using a no-base relaxing product. Option: Take ¼-inch to ½-inch horizontal (0.6 to 1.25 centimeters) partings and apply protective base cream to the entire scalp	5 Begin application of the relaxer in the most resistant area, usually at the back of the head. Make ¼-inch to ½-inch (0.6 to 1.25 centimeters) horizontal partings, and apply the relaxer to the top of the strand. Apply the relaxer as close to the scalp as possible, but do not touch the scalp with the product. Only allow the relaxer to touch the scalp itself during the last few minutes of processing. To avoid over processing or breakage, do not overlap the relaxer onto the previously relaxed hair	6 Continue applying the relaxer, using the same procedure and working your way down the section toward the hairline.   
 7 Continue the same application procedure with the remaining sections, finishing the most resistant sections first	8 After the relaxer applied to all sections, use the back of the comb, the applicator brush, or your hands to smooth each section. 	9 Process according to the manufacturer's directions. Perform periodic strand tests. Processing usually takes less than twenty minutes at room temperature. Always follow the manufacturer's processing directions
 10 During the last few minutes of processing, gently work the relaxer down to the scalp	11 If the ends of the hair need additional relaxing, work the relaxer through to the ends for the last few minutes of processing. Do not relax ends during each retouch; doing this will cause over processing. Option: A cream conditioner may be applied to relaxed ends to protect from over processing caused by overlapping	12 Rinse thoroughly with warm water to remove all traces of the relaxer 

 13 Shampoo at least three times with an acid-balanced shampoo. It is essential that all traces of the relaxer be removed from the hair. Optional: Apply the pre-neutralizing conditioner, and comb it through to the ends of the hair. Leave it on for approximately five minutes and then rinse. Always follow the manufacturer's directions and the procedures approved by your instructor	14 Blot excess water from hair.	15 Apply this neutralizer in ¼- to ½-inch (0.6 to 1.25 centimeters) sections throughout the hair and smooth with your hands or the back of the comb.
16 Process the neutralizer according to the manufacturer's directions.	 17 Rinse thoroughly, shampoo, condition, and style	

Step by step Applying Hydroxide Relaxer

 1 Perform an analysis of the hair and scalp. Perform tests for porosity and elasticity	 2. Drape the client for a chemical service. To avoid scalp irritation, do not shampoo the hair. The hair and scalp must be completely dry prior to the application of a hydroxide relaxer	 3 Part the hair into four sections, from the center of the front hairline to the center of the nape, and from ear to ear. Clip the sections up to keep them out of the way
 4a Apply protective base cream to the hairline and ears	 4b Option: Take (0.6 to 1.25 centimetres) horizontal partings, and apply a protective base cream to the entire scalp. Always follow the manufacturer's directions and the procedures approved by your instructor.	5a Wear gloves on both hands. Begin application in the most resistant area, usually at the back of the head. Make ¼-inch to ½-inch horizontal partings, and apply the relaxer to the top of the strand first
 5b and then apply relaxer to the underside. Apply the relaxer with an applicator brush, or the back of the comb, or your fingers. Apply relaxer ¼-inch to ½-inch away from the scalp, and up to the porous ends. To avoid scalp irritation, do not allow the relaxer to touch the scalp until the last few minutes of processing	6 Continue applying the relaxer, working your way down the section toward the hairline. Continue the same application procedure with the remaining sections. Finish the most resistant sections first	 7 After the relaxer has been applied to all sections, use the back of the comb or your hands to smooth each section. Never comb the relaxer through the hair.

8 Process according to the manufacturer's directions. Perform periodic strand tests. Processing usually takes less than twenty minutes at room temperature. Always follow manufacturer's processing directions.	 9 During the last few minutes of processing, work the relaxer down to the scalp and through the ends of the hair, using additional relaxer as needed. Carefully smooth all sections, using an applicator brush, fingers, or back of the comb	10 Rinse thoroughly with warm water to remove all traces of the relaxer.
 11 Optional: Apply the normalizing lotion and comb it through to the ends of the hair. Leave it on for approximately five minutes and then rinse thoroughly. (Always follow the manufacturer's directions and the procedures approved by your instructor.)	12 Shampoo at least three times with an acid-balanced neutralizing shampoo. It is essential that all traces of the relaxer be removed from the hair. Option: If you are using a neutralizing shampoo with a colour indicator, a change in colour will indicate when all traces of the relaxer are removed and the natural pH of the hair and scalp has been restored.	 13 Rinse thoroughly, condition, and style as desired

Step By Step Applying Hydroxide Relaxer Retouch



1 Perform an analysis of the hair and scalp. Perform tests for porosity and elasticity.

2 Drape the client for a chemical service. To avoid scalp irritation, do not shampoo the hair. The hair and scalp must be completely dry prior to the application of a hydroxide relaxer retouch

3 Divide the hair into four sections, from the centre of the front hairline to the centre of the nape, and from ear to ear. Clip sections up to keep them out of the way



4a Wear gloves on both hands. Apply a protective base cream to the hairline and ears, unless you are using a no-base relaxing product.



4b Option: Take ¼-inch to ½-inch horizontal (0.6 to 1.25 centimetre's) partings and apply protective base cream to the entire scalp



5 Begin application of the relaxer in the most resistant area, usually at the back of the head. Make ¼-inch to ½-inch (0.6 to 1.25 centimeters) horizontal partings, and apply the relaxer to the top of the strand. Apply the relaxer as close to the scalp as possible, but do not touch the scalp with the product. Only allow the relaxer to touch the scalp itself during the last few minutes of processing. To avoid overprocessing or breakage, do not overlap the relaxer onto the previously relaxed hair

6 Continue applying the relaxer, using the same procedure and working your way down the section toward the hairline	 7.Continue the same application procedure with the remaining sections, finishing the most resistant sections first.	 8 After the relaxer has been applied to all sections, use the back of the comb, the applicator brush, or your hands to smooth each section
9 Process according to the manufacturer's directions. Perform periodic strand tests. Processing usually takes less than twenty minutes at room temperature. Always follow the manufacturer's processing directions.	10 During the last few minutes of processing, gently work the relaxer down to the scalp	 11 If the ends of the hair need additional relaxing, work the relaxer through to the ends for the last few minutes of processing. Do not relax ends during each retouch; doing this will cause overprocessing. Option: A cream conditioner may be applied to relaxed ends to protect from overprocessing caused by overlapping
12 Rinse thoroughly with warm water to remove all traces of the relaxer.	13 Shampoo at least three times with an acid-balanced neutralizing shampoo. It is essential that all traces of the relaxer be removed from the hair.	 14 Style the hair as desired

Step by step applying a keratin straightening treatment



1. The shampoo serves to give a deep cleaning to the hair; hair should be washed with the shampoo that accompanies the keratin treatment. It should be washed very well, and it is recommended to wash twice before applying the treatment.



2. People who have coloured hair should let the shampoo work longer. About ten minutes should be enough for that. Finally, rinse it well and dry it with the dryer or let it dry naturally.



3. The application is made directly on the hair, from the roots to the ends.

4. For a better application it is necessary to divide the process in four parts according to the area of the head. Apply to the nape of the neck once the product has been properly mixed in the applicator bottle.

5. Before starting to straighten, the hair must be dried. Without having rinsed the product, it is necessary to pass the dryer through all the hair. It can be stretched from the roots at the same time that it is directed in the zone of the dryer.



6. Once it feels dry, apply the heat from the flat iron. Continuing with the division of quadrants in the head, we must begin with the tufts of the nape of the neck. You have to do 10 repetitions at the root, and then move on to the middle and ends.

7. The final sealing is done at the time of washing and after ironing. It is important that over the next few months a sulphate-free shampoo is used to extend the effects of the treatment much longer.

