

Approved by
the Ohio State Board of Cosmetology

Ohio 8 Hour Cosmetology CE Course (8 hours)
Hair Coloring & Infection Control

License Renewal Period: February 1, 2011 through January 31, 2013

Eligible Licensees: Cosmetologist, Managing Cosmetologist,
Hair Designer, Managing Hair Designer

Presented by
ContinuingCosmetology.com
PO Box 691296
Orlando, FL 32869

T. D. Costner
Cosmetology Instructor / Program Director
info@continuingcosmetology.com
407.435.9837

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Pay special attention to the information in ***bold italic***.

Module 1: Hair Coloring (6 hours)

Module Outline

- The Level System
- The Law of Color and The Color Wheel
- Product Formulations
- Degrees of Decolorization and Contributing Pigment
- Service Procedures and Client Consultation
- Preliminary Strand Test
- Single-process Hair Coloring and Single-process Retouch
- Semi-permanent Hair Coloring
- Tips and Solutions
- Baliage Hair Coloring Technique
- Temporary Hair Coloring

Key Terms

<i>aniline</i>	<i>decolorization</i>	<i>oxidation</i>	<i>release form</i>
<i>bialage</i>	<i>disinfectant</i>	<i>pheomelanin</i>	<i>resistant</i>
<i>client intake form</i>	<i>eumelanin</i>	<i>porosity</i>	<i>single-process application</i>
<i>complementary</i>	<i>melanin</i>	<i>predisposition</i>	
<i>consultation</i>	<i>new growth</i>	<i>preliminary strand test</i>	

Learning objectives:

After completing this lesson you will be able to:

- identify the level system, the level system chart and it's values
- describe properties of the color wheel
- list the different types of hair coloring product formulations and their use
- identify procedures and purpose of the patch test
- identify the purpose of hair coloring product developers
- describe the process of decolorization, the decolorization chart and it's values
- describe contributing pigment, the contributing pigment chart and it's values
- list procedures for a preliminary strand test
- describe the application of single-process hair coloring
- list procedures of a single-process retouch
- describe the application of semi-permanent hair coloring
- describe baliage hair coloring
- list procedures for temporary hair coloring application
- identify the client consultation and inclusions of the client intake form
- describe hair analysis and inclusions of a service plan
- define inclusions of the release form

Introduction

The purpose of this study module is to review the principles, practices and theories of hair coloring. **Precautions:** To ensure the safety and accuracy of product use for coloring services that you perform, please consult the product company and their published instructions and information regarding their formulations. Never take for granted that you already know how to prepare or process hair coloring products that you are unfamiliar with. To do so could cause injury to yourself or your client. Also, keep in mind that companies sometimes change their formulations. This may or may not effect the way you mix and apply their product. However, to be abreast of any changes, you should establish the practice of reading all packaging enclosures, labels and instructions as part of your customary preparations prior to performing color services.

Color Theory

Porosity

One of the first things to consider when planning a color service is the degree of porosity of the hair. ***Porosity is defined as the hair's ability to absorb moisture.*** It is not to be confused with hair texture which refers to it's diameter. These are two different terms that refer to two different aspects of the hair.

The amount of porosity is to be analyzed and placed into one of three categories. Cosmetic Art Science terms these categories as “degrees of porosity”.

The degrees of porosity are: low, average and high.

There are clinical techniques to determine hair porosity. During testing you will be using your sense of touch to categorize the client's hair.

You will test the four main areas of the head:

1. the front hairline
2. the temple
3. the crown
4. the nape

Create a small strand of just a few hairs and hold it perpendicular to the head. With the opposite hand, grasp the hair strand using your thumb and forefinger then slide your fingers slowly and gently from the ends to the scalp. You are feeling for the amount of roughness of the hair cuticle.

The smoother the hair feels the lower the degree of porosity that is present. The rougher the hair feels the higher degree of porosity that is present.

Low Porosity: The hair feels smooth when tested.

Hair that has a low degree of porosity has a lessened ability to absorb moisture and is considered resistant to chemicals. Hair that has a low degree of porosity might take longer to process.

Average Porosity: The hair feels slightly rough.

Hair that has an average degree of porosity is considered normal. It is for this degree of porosity that chemical formulations of hair color are designed for when the label refers to processing instructions for “normal” hair.

High Porosity: The hair feels very rough.

Hair that has a high degree of porosity is considered overly porous. Color processing takes less time and the hair may lose its color quicker due to the open cuticle.

Texture

Texture is the term used in Cosmetic Art Science to describe the diametric measurement of a hair strand. There are three categories of measurement when analyzing the diameter of a hair strand: large, medium and small. The corresponding terms for these textures are termed as: coarse, medium and fine.

Analyzing the clients' hair texture is important when planning a color service for the following reasons.

Melanin

Melanin (pigment) is created and dispersed in varying amounts in each of the texture categories. *Melanin is more compact in fine hair and less compact in coarse hair.* Where there is more compact melanin, the hair can take on more depth and become darker during a color service. Where there is less compact melanin, the hair can take longer to process. It is important to consider this theory during the planning phase of a color service.

Eumelanin

Eumelanin is the pigment that is found in natural hair that gives it tonal hues of blacks and browns.

Pheomelanin

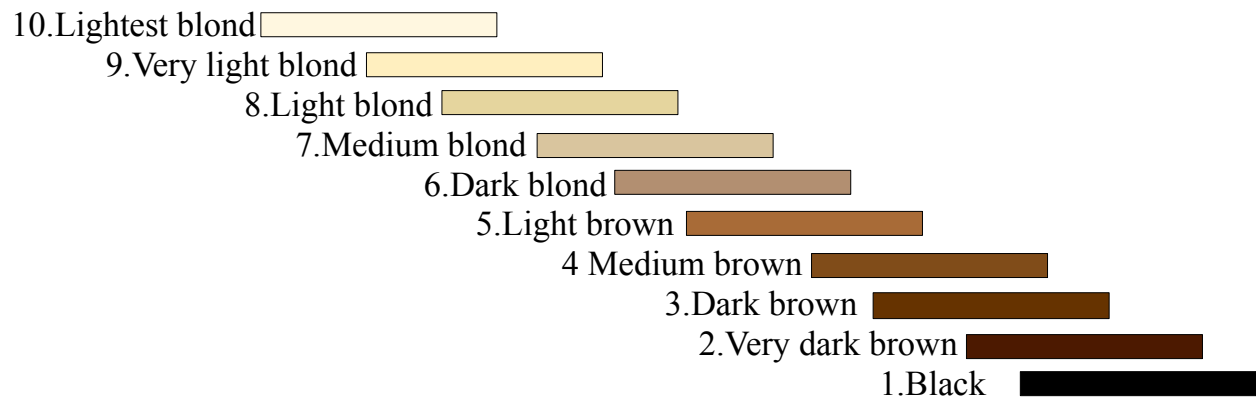
Pheomelanin is the pigment that is found in natural hair that gives it tonal hues of blonds and reds.

The Level System

Cosmetic Art Science has developed a way to identify and categorize the lightness or darkness of the color of hair into units of measurement. It is called the level system and is used to identify and put into perspective color density. It is also described as: the amount, concentration or saturation of color.

The Level System

Figure 1 (levels of color)



There are ten units of measurement in the level system. Level 1 is black and level ten is lightest blond. Each unit of measurement, from level one, gets lighter and lighter until it reaches the lightest color labeled as #10 - lightest blond.

The units are as follows: 10. Lightest blond; 9. Very light blond; 8. Light blond; 7. Medium blond; 6. Dark blond; 5. Light brown; 4. Medium brown; 3. Dark brown; 2. Very dark brown; 1. Black

It is important to note that the names given to the 10 degrees of color level can vary among product companies who manufacture color level swatches. The focus here is to identify degrees of color saturation and depth between levels, the degrees of lightness to darkness.

The building block for any color service is the initial analysis of the clients' level of color. Without mastering this step it is impossible to achieve accuracy in predicting the end results. Many hair product manufacturers include color level system swatches to make the job easier. After familiarizing yourself with the color levels you will become less dependent upon using the level system swatches. However, it is the best practice to continue using this tool throughout your entire career as a colorist in order not to inadvertently stray from accuracy of good analysis.

While learning the level system, it is imperative to use swatches otherwise you may develop an altered sense of level recognition. It is similar to a professional singer. Unless the performer practices with an accurately tuned instrument, such as a professionally tuned piano, he is at risk of altering his ability to recognize true and perfect intonation. This is a good example to compare with the professional colorist. Unless you train your eye with an "in tune" instrument, such as color level swatches, you are at risk of failing to develop a strong eye for color level recognition.

None the less it is superb practice to continue using color level swatches as customary practice for each color service no matter how trained your eye. All tools are to be implemented as appropriate to the service being rendered to maintain a level of excellence.

How To Use Color Level Swatches

The primary use of the color level swatch is during the initial client consultation. Later in this study we will discuss at greater length all components of a professional consultation, however for now we will focus on hair color analysis.

First determine the client's natural color level by sectioning the hair into about a half inch square at the crown of the head. Hold it perpendicular to the scalp so that light passes through it. Select the natural color level hair swatch that you think best matches and place it against the strand to compare. You can check the hair at the scalp and throughout the strand by sliding the swatch up and down the strand to see if all parts of the hair strand are within the same level. Once you have determined color level, you will apply other color laws and factors that help in determining the services to be performed.

To develop the plan of service we also need to consider hues.

Color Hues

Also called tones, color hues are what hair color is all about when it comes to chemistry. Tones or hues are colors that we will be studying using the Color Wheel. Without a complete understanding of color hues it is impossible to achieve natural results. The average patron coming into the salon to get their hair colored requires natural colored hair. Very few people, in comparison to the mass majority, want extreme or vivid colors such as green, purple or fire engine red. Most people want an attractive natural hair color. So the goal of creating natural color is a primary basic of color analysis.

We take into consideration the tone of the natural hair and the tones that we will add with hair coloring products in order to achieve the desired results. All tones play a part of the hair coloring equation. Becoming an expert color analyst is only achievable by learning the color wheel, it's tones and the theory behind it.

The Law of Color

Color is described as the property of an object that determines what the eye is perceiving based on how it reflects light. Hair can reflect components that we perceive as brown or blond but contain the colors of red, green, blue and other shades. In certain combinations of these colors, we perceive very dark brown hair. Other combinations of colors we perceive very light blond hair. There are about as many shades and tones as your imagination will allow when it comes to color results. By adding blues and violets we can make the hair appear more ashy, by adding yellows and reds we make the hair appear more warm. Successful hair coloring is primarily the ability to properly add and remove colors. We have many choices regarding hair color. We can add to the natural hair color. We can remove natural hair color, and we can also add and remove at the same time. We can lighten the level and change the tone simultaneously. It is really an amazing art for the well-rounded colorist. Becoming an expert colorist is one of the most important things you can do in the field of Cosmetology. It is one of the most important services offered in the salon today. It is the best way to establish consistent repeat customers who due to the nature of hair growth must book their touch-ups regularly. This in turn, make for strong client-colorist relationships which results in dependable income.

Tonal Value

Here again the need for analyzing comes into play. Once you have established the level of hair color using the level system, now you must determine the different hues that the client's hair contains. Determining levels and tones are the first steps in building the plan for the coloring process. We take the natural color level, the natural color tones, and what the client tells you that she wants the end results to be, and work the equation.

The Basics of Hair Coloring Products and The Law of Color

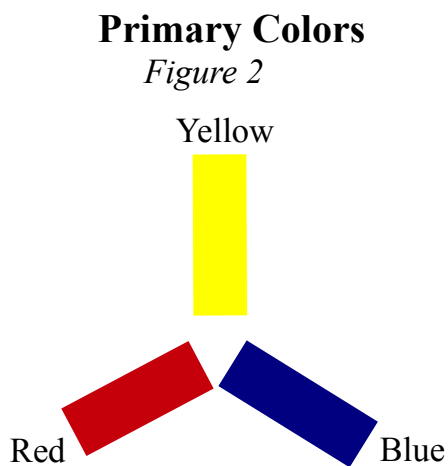
Hair coloring products use primary and secondary colors. All hair coloring products have a base color which is the dominant color contained in the product. Base colors are determined by the product manufacturer with natural results in mind. The colorist will use the laws of color to determine how to use these products. Through the ages several prolific scientists have discovered, theorized and defined what is now considered the laws of color. Whether in reference to an artist's paint on a canvass or a rainbow in the sky, there are certain laws we find in color creation that apply.

For example: always, without fail, when you combine equal amounts of yellow and blue you will always get green. Equal amounts of red and yellow always make orange. These examples are part of the laws of color and color creation.

Science has found that using the shape of a wheel and placing primary and secondary colors around the wheel in a certain order, they can best dictate color law into a meaningful conclusion.

Let's build a color wheel!

We will start with the primary colors. *Primary colors consist of yellow, red and blue.*



Primary colors are pure colors and can not be formed from combining any other colors. However you can use these colors to make other colors. In fact, all colors are created from the three primary colors.

Cosmetic Art Science uses the terms “cool” and “warm”. ***If a color has predominately blue tones it is considered to be cool.*** If a color has predominately red or yellow tones it is considered to be warm.

This terminology helps in understanding color concepts when mixing hair coloring products. To create a warmer shade, you can add more red. To create a cooler shade, you can add more blue. That would be a very basic rule of thumb however additional color concepts need to be mastered in order to have a complete understanding of hair coloring technology.

For instance, blue is considered the strongest of all the primary colors and the only cool one.

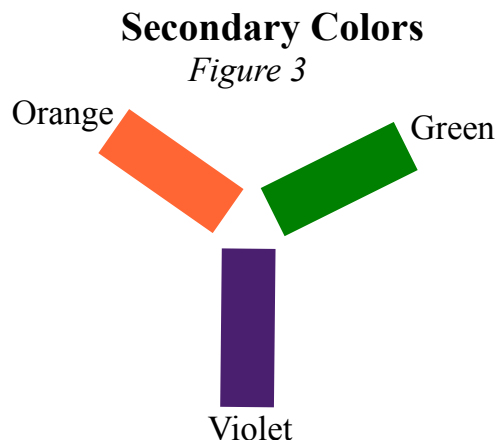
In hair coloring concepts, it is good to know that the color blue can provide depth and darken any color. As for red, it is considered a medium strength primary color.

In hair coloring concepts, it is good to know that adding red to blue based colors makes them lighten. Red added to yellow based colors makes them darken.

Yellow is considered the weakest strength of the primary colors. When added to other colors it changes that color to a brighter and lighter appearance.

When the three primary colors (red, blue and yellow) are mixed together in equal parts, the following colors are created: black, gray and white, according to the level used.

When two primary colors are combined, a secondary color is created. There are only three secondary colors. They are green, orange and violet.



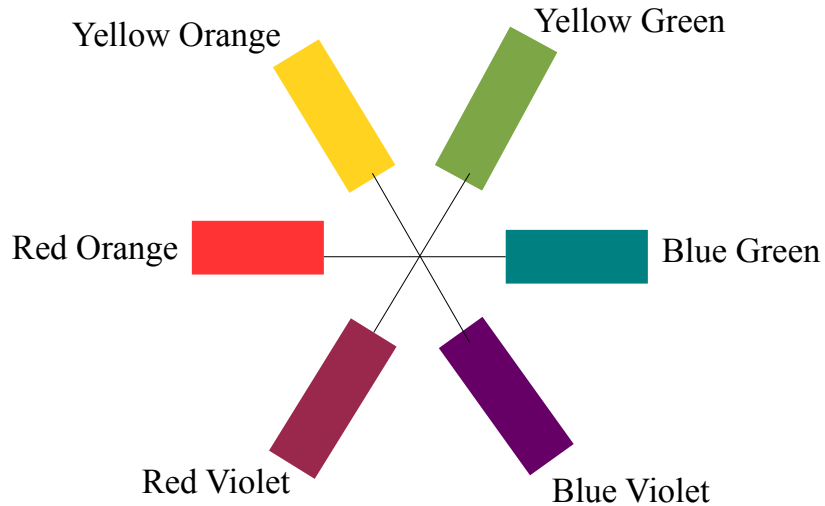
Combining equal amounts of blue and yellow make green.
Combining equal amounts of red and yellow make orange.
Combining equal amounts of blue and red make violet.

By looking at the color wheel we can see that colors are in a specific order.

Tertiary colors are the colors created when combining equal amounts of a primary color and its neighboring secondary color on the color wheel. Tertiary colors are: blue-green, blue-violet, red-violet, red-orange, yellow-orange and yellow-green.

Tertiary Colors

Figure 4

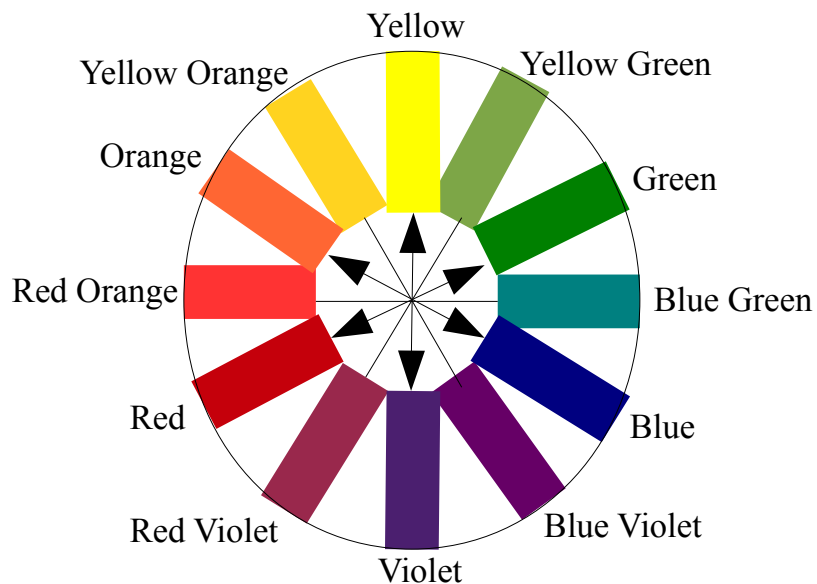


Complementary Colors

Complementary is the term used for primary and secondary colors that are directly opposite each other on the color wheel. Each color's complementary color neutralizes its tone. For example: to neutralize an over abundance of yellow in the hair, use equal level of its complementary color violet.

Complementary Colors

Figure 5



Hair Coloring Product Formulation

Cosmetic Art Science defines hair coloring products into two main categories:

Oxidative and Non-oxidative

Oxidative hair coloring products are classified into two groups:

1. Permanent

2. Demi-permanent

Non-oxidative hair coloring products are classified into two groups:

1. Temporary

2. Semi-permanent

Oxidation is when the chemical substances combine with oxygen.

Oxidative hair coloring products are designed using oxidation as a necessary action to achieve hair coloring.

Oxidative hair coloring products consist of a solution that contains dye *intermediates* which when mixed with a developer creates a dye as the chemicals react within the hair shaft.

Also contained in oxidative hair coloring products, are *preformed* dyes. They are included in hair coloring products in predetermined amounts according to the shade that is intended for the formulation.

Hair coloring products also contain soaps, detergents and conditioning agents.

The coloring product is designed to mix with the developer (hydrogen peroxide) right before application to the hair.

The terms hydrogen peroxide and developer are interchangeable and refer to the same additive.

The applied mixture causes the hair to swell, and the dye intermediates and preformed dyes penetrate the hair shaft and then have a chemical reaction. This reaction is what forms the final dye composition that will stain the hair.

Product Overview

Permanent hair coloring products are designed to lift existing color and deposit product color.

Permanent hair coloring products are used in coloring services for the following purposes.

1. To completely change one's hair color

2. To enhance one's natural hair color by brightening it, or darkening it

3. To cover gray

Demi-permanent hair coloring products are designed to only deposit product color.

They contain coal-tar dyes that adhere to the hair shaft. Demi-permanent hair coloring products are not designed to lighten natural hair.

Demi-permanent hair coloring products are used in coloring services for the following purposes.

1. To refresh previously colored hair that has faded
2. To enhance one's natural hair color
3. To deemphasize gray hair so it blends in better to the overall color of the person's hair
4. To use as a toner to chemically pre-lightened hair
5. To use as a filler for a color correction procedure

Temporary hair coloring products are used in coloring services for the following purposes.

1. To change the hair color temporarily
2. To neutralize an undesired tone

Semi-permanent hair coloring products are used in coloring services for the following purposes.

1. Can be used as a toner to pre-lightened hair
2. Can be used when a short-term change is desired, as it generally only lasts from four to six weeks

Semi-permanent hair coloring products are single products. They are not mixed with developers or peroxide. Demi-permanent hair coloring products are mixed with developers.

PATCH TEST REQUIRED

Permanent Hair Coloring Products

Permanent hair coloring products are always mixed with a developer.

Using a higher volume of developer creates more lightening results and using a lower volume of developer creates less lightening results.

Simultaneously with the lightening action, color is deposited.

Permanent hair coloring products are very versatile in that they can be used to match, darken, lighten or cover gray.

Aniline derivatives are used in permanent hair coloring products.

Aniline, phenylamine or aminobenzene is an organic compound; $C_6H_5NH_2$.

Any hair coloring product containing aniline dyes requires a patch test 24 to 48 hours before application.

The types of aniline are:

1. aniline oil for blue (pure aniline);
2. aniline oil for red (a mixture of equal parts - aniline and ortho- and para-toluidines);
3. aniline oil for safranin (aniline and ortho-toluidine) Safranin (basic red 2) is a biological stain that colors cell nuclei red.

Colors develop when the aniline derivatives combine with hydrogen peroxide. The dye is deposited into the cortex of the hair. This is the oxidation process. Oxidation is defined as: to undergo or cause to undergo a chemical reaction with oxygen.

Historians agree that aniline: was first isolated from the distillation of indigo (a plant-based blue dye such as; used in blue jeans) in 1826. This was done by Otto Unverdorben, who named it crystalline.

However in 1834 Friedlieb Runge isolated aniline using coal tar, which also in turn produced a blue color when lime chloride was added to it.

Aniline from coal tar is still widely used today in hair coloring products.

Over time aniline became greatly used commercially in many products such as plastics and dyes. There is now a giant synthetic dye industry based on aniline dyes.

Hair product manufacturers get their aniline derivatives from these dye companies to use in their hair coloring product lines.

Permanent hair coloring products are the best choice for dying gray hair.

Permanent hair coloring products create a permanent change in the hair by lightening the existing natural color by removing color pigments. This is the primary reason that they are called permanent colors – because of permanent removal of natural pigment.

PATCH TEST REQUIRED

Demi-Permanent Hair Coloring Products

Demi-permanent hair coloring products are oxidative. They require a developer. They only deposit color and do not lighten. They are less alkaline than permanent hair coloring products and require a lower volume developer. Many demi-permanent hair coloring products do not use hydrogen peroxide as the oxidizing agent like with permanent hair coloring products. They do contain the same dyes as permanent hair coloring products therefore requiring a patch test.

Demi-permanent hair coloring products do not have the ability to decolorize hair.

These no-lift deposit-only hair coloring products are great for:

- 1.a client's first color service
- 2.blending gray
- 3.to refresh faded permanent color on the mid-area and ends
- 4.restoring natural hair color
- 5.correcting off-tones

On natural hair, they can deepen or change the color.

Demi-permanent color is a great choice for refreshing the hair shaft area and ends when performing a new growth hair color service. It keeps hair coloring build-up to a minimum using this technique.

NO PATCH TEST REQUIRED

Temporary Hair Coloring Products

Temporary hair coloring products are non-oxidative. ***They do not require a developer.*** Temporary hair coloring products only coat the hair and are easily shampooed away. No chemical change in the hair occurs.

There are various types of temporary hair coloring products in the marketplace and many new products arriving frequently.

Some of the existing types of temporary hair coloring products are:

- 1.Spray on
- 2.Shampoo
- 3.Liquid / rinse
- 4.Mousse
- 5.Gel
- 6.Mascara / wand

Spray on temporary color products wash out easily with one shampoo. It is used for many looks from subtle to dramatic – from full coverage to streaks and designs. For dramatic designs, stencils can be used. It is fun for the client and the colorist can offer it as a specialty service during the Holidays. Stencils can be purchased or custom made from existing patterns.

Shampoo temporary color products are simply used like normal shampoo. Follow label instructions for best results. The color molecules coat the hair and you can blow-dry and style as usual.

The use of color shampoos is a very popular way to neutralize unwanted brassiness or yellow tones.

Liquid temporary color products, also known as rinses, are applied to freshly shampooed hair. Follow the directions on the label for recommended use for best results. Generally the rinse is applied after shampooing. Many stylists wrap the hair in a towel to blot all excess water.

The hair should not be dripping wet for proper application. The hair must be able to be coated and it can not do so if over-saturated with water. For full coverage, apply beginning at the hairline and comb through to the ends, applying more rinse as needed. Style as desired.

Mousse temporary color products should be used following label directions for best results. Most are designed for either wet or dry hair – full coverage or strategically placed.

Gel temporary color products can be applied the same as customary setting gels. Usually they can be applied to wet or dry hair however read the label for best results.

Mascara temporary coloring products and those that are applied with wands are great when you want perfect placement and control.

They are usually designed for use on dry hair. Of course many eye-lash mascaras are available in many colors, but so are designer hair mascaras.

It's a great way to temporarily color new growth around the hairline. Creative highlights can be perfectly placed using illuminating colors on styled dry hair.

PATCH TEST REQUIRED

Semi-Permanent Hair Coloring Products

Semi-permanent hair coloring products are designed to fade over time. They often last about four to six weeks depending on how many times the hair is shampooed.

Semi-permanent hair coloring products are not mixed with peroxide. They do not lift or lighten the natural hair color and only deposit color.

Semi-permanent hair coloring products require a patch test.

PATCH TESTS ARE NOT INTENDED FOR DIAGNOSIS OR TREATMENT OF HEALTH CONDITIONS

Patch Test

A patch test is also known as a predisposition test.

The term predisposition is defined as: the state of being predisposed or susceptible to something, especially to a disease or health problem. In this case it refers to a client being predisposed to being allergic or sensitive to the aniline dye in the hair coloring product.

Therefore to determine whether a client will have a negative reaction, ***we must perform the patch test 24 to 48 hours before an aniline hair coloring service.***



Illustration 1: Wash, rinse and dry test area.



Illustration 2: Apply color mixture to the cleansed area.

To perform a patch test:

1. Choose a testing area either on the inside of the elbow or behind the ear.
2. Wash a small area with a gentle soap, rinse and dry.
3. Mix a small amount of the hair coloring product (use the shade and brand that you intend on using for the service) in the same ratio as a customary application.
4. Using a cotton swab, apply color mixture to the cleansed area.
5. Do not rinse or remove for 24 to 48 hours.
6. After 24 to 48 hours look at the patch test area to determine if there are any signs of inflammation, rash or welts.
7. Record the results onto the client's service record card.

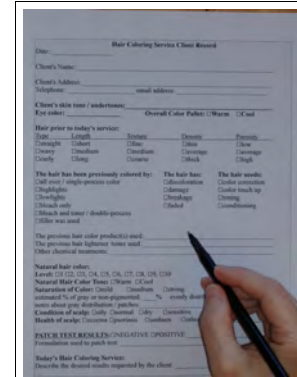


Illustration 3: Record the results onto the client's service record.

Developer / Hydrogen Peroxide

The developer is what must be mixed with oxidative hair coloring products in order to create the chemical reaction needed to form and deposit color. Hydrogen peroxide also plays a part in the determination of the amount of lightening natural hair. Hydrogen peroxide is the oxidizing agent that “develops” the hair coloring product thus called the developer. When hydrogen peroxide is mixed with oxidative hair coloring products it creates oxygen gas that in turn forms the chemical action that creates color molecules that change the color of hair.

Hydrogen peroxide is available in different concentrations called volumes. The volume indicated on the labeling refers to the concentration. Concentration is also referred to as strength. The stronger the formulation the greater amount of lightening that can be achieved. Developer is somewhat customizable but there are specific limitations, scientifically speaking. Most hair coloring product companies design their permanent hair coloring products to use 20 volume developer for normal application. 20 volume peroxide is always used for achieving gray coverage.

- Other volumes are used for various color applications.
- 10 volume is used for deposit-only applications.
- 30 volume is used when additional lightening is desired.
- 40 volume is used when maximum lightening is desired.

Hair Lightener / Bleach

Hair lighteners, also known as bleach, work by decolorizing the hair. Bleaching products are designed to use with hydrogen peroxide as the developer. The oxidation process is required to achieve decolorization. When this action happens within the cortex of the hair shaft, it displaces and eliminates the melanin pigment thus decolorizing the hair. You can control the amount of decolorization by choosing the volume of developer and adjusting the processing time the product is left on the hair. Hair lighteners are designed to lift the hair to lighter levels than what permanent hair coloring products can achieve.

Bleaching is a very versatile tool and is used for various purposes.

Lighteners can be:

- used to lighten natural hair
- used to lighten colored hair
- used to lighten isolated parts of the hair
- used alone to achieve a color
- used as the first step to achieve a level and follow with a toner

Decolorization

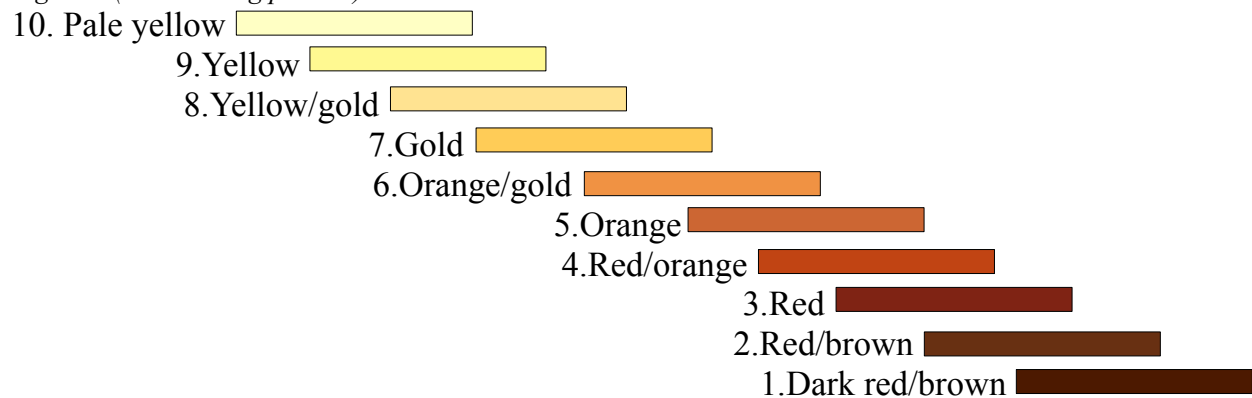
The decolorization process begins immediately upon the application of a prepared lightening product.

The colorist predetermines the level of color that she wants to *remain* in the hair.

There is an invaluable tool for calculating decolorization. It is called the 10 degrees of decolorization.

Degrees of Decolorization

Figure 6 (decolorizing process)



The 10 degrees of decolorization chart is a representation Cosmetic Art Science uses to measure the amount of pigment remaining in the hair throughout the progression of stages of the bleaching process.

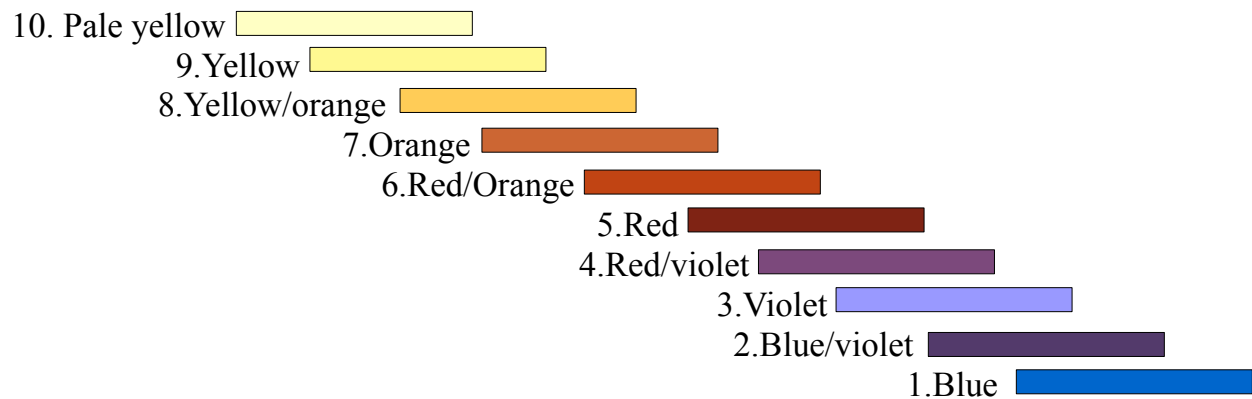
In order to show all possible degrees of decolorization for human hair, the decolorization chart represents that the first degree of lightening for black hair is dark red-brown, and so forth. Hair will of course begin at different levels, but none the less will go through the remaining stages as the decolorization process progresses. Predetermining the final degree of decolorization needed to achieve the desired results of a color service is a key part of pre-planning. Ending the decolorization process at the predetermined degree is crucial.

The amount of existing pigment in natural hair, the strength of the lightener and the amount of processing time all impact the lightening process. Also the temperature of the client and the ambient temperature of the room can also play a part in how fast the hair processes. Oftentimes it has been determined that the warmer a client and room the faster the decolorization process will be.

The natural pigment left in the hair is referred to as contributing pigment or undertones. Cosmetic Art Science has determined the amount of pigments left in the hair for each stage.

Contributing Pigment

Figure 7 (undertones)



It is the undertone and level of the remaining contributing pigment that determines how to tone the lightened hair. It is rather rare to leave bleached hair non-toned. It usually has an unnatural and unappealing appearance. Therefore toners are more often used than not when using lighteners. The more pigment that you can leave in the hair and the less time you leave the product on the hair the healthier and stronger the hair will be at the completion of the color service. That is why the colorist tries to never go lighter than what is needed during the bleaching process.

Also, the colorist should maintain conscious observation of how fast the client's hair is processing.

Sometimes passing through the lower degrees of decolorization may seem to take longer than the higher degrees. Some colorists have observed that after the hair passes through red-orange stage – degrees 4, it tends to progress more rapidly through the remaining degrees.

Severe damage can occur if the hair is processed beyond the pale yellow stage. Toners can not be accepted into hair that has been bleached beyond the pale yellow stage. Bleach is therefore not designed to bring the hair into a white blond level. Only those who are poorly trained in hair coloring will attempt this irreversible error.

However, toners can easily create the white blond look without over lightening the hair. Instead of removing all pigment, you need only to neutralize the yellow to give a white blond appearance.

Any professional hair coloring product can be used as a toner other than temporary hair coloring. That would include: permanent, semi-permanent, or demi-permanent hair coloring products.

Service Procedures and the Client Consultation

The first procedure for any hair coloring service is the initial client consultation. Prior to patch tests, strand tests or any other format of analysis, we must find out what the client wants in order to know what direction to go in. Find out if the client wants to go lighter, darker, highlights, lowlights, new growth retouch, virgin color, cover gray, color correction or a combination of those services. Conclude if the goal is realistic and achievable in regard to her natural color level, and the condition of her hair.

The consultation should be done facing the client and observing her hair in natural sun light and not under artificial lighting. Many salons do not have natural sun light at their work stations, and if that is the case for you, go to a windowed area where the sun light is available in order to see the true level and shade of her hair. If the client has had previous color treatments, look for any over processed areas or discoloration. Look at her new growth, mid length and ends. Look at her scalp for any signs of conditions.

When booking the client for the consultation, pencil-in no less than 15 minutes. If she is a new client introduce yourself and tell her a little bit about your services and your salon. Make her feel welcome and at ease. There should be an understanding of etiquette to all employees in your salon that interruptions or intrusions are forbidden when stylists are with their clients.

Give the client an information card and pencil so she can give you information about her hair care history and any previous chemical services she has had.

Analyze the client's hair to determine amount of gray, texture, length and condition. Observe her seasonal color pallet. Is she warm, cool, what color are her eyes and skin undertones?

Ask her leading questions to get her talking about what she wants so you can be fully informed of her ideas. Allow her to speak with no interruptions.

She might remember additional information such as chemical services in the past that maybe she had forgotten about that might still remain on her ends. This would be important to know. Getting a full and complete history is irreplaceable in the color consultation.

If you are consulting at your work station, remember to face the client and do not look at her through the mirror to communicate. It is impersonal to communicate in that manner. Look directly at her and not her reflection to see all things and to communicate all things. It is however acceptable to do that later while servicing the client, but not during the consultation stage.

When speaking with the client, ask her questions that give you precise knowledge about what she has in mind.

Ask her directly, “are you thinking more of a temporary color change or a permanent color change?”.

Are you thinking of overall color or highlights?

Are you thinking of overall color enhancement similar to what your natural color is?

Would you like to look at several models in my styling books that demonstrate these examples?

Show her your portfolio. Nothing personalizes your relationship more with your client than to show her photos of your work. It's also the most accurate way to show her your level of ability.

Show her color swatches of different shades that are possible to achieve her planned new hair color.

Show her colors that are best for her skin tone and eye color. Keep her in her appropriate color pallet with either warm, cool or neutral shades.

If the client says, “I want a dark chocolate brown” shade, then by showing her color swatches you will be able to determine exactly what level of “dark chocolate brown” she plans to go. In her mind, it may be dark chocolate but in reality she may point to a color swatch that is in fact more of a light brown as in a “milk chocolate” or tan family.

Having an understanding of your client's idea of color level is imperative. What better way to find out the true meaning of her terminology than with a visual example.

Upon reaching an understanding of what the client wants, it is now time to explain to her what processes need to happen to achieve it. Explain to her whether it will be one or two

steps (or more) and the reality of how close you can come to exactly what she has described.

If several steps are involved and there is not sufficient time to perform them in one day, let the client know that it will take several visits to complete.

The service can be scheduled 24 to 48 hours after the patch test is performed. Upon determining that the patch test is negative the hair coloring process can be performed at any time thereafter. Make clear that the hair coloring service is completely contingent upon having a negative patch test.

Also, different hair coloring services are going to be different prices. You must be complete and accurate in quoting the exact cost for the services. If there are any problems with affordability for the client to get what she wants, you can suggest alternative services that will still give her a desirable color change but will fit better for her budget. For example: if she really wants an overall color, to cover gray and additional highlights in 2 different shades, from the occipital bone and up, that could run into quite a bill at the end of the day. If she can not afford that, suggest to her a one-step color that will cover the gray as well as lighten her level 2 shades. Suggest that she can come back in a couple of weeks to add a more dimensional look using highlights and /or lowlights, when she can work that in to her budget. Often times the client will see that suggestion as a good alternative and it allows them to still be able to make an immediate change for a new look.

So get creative not only with your coloring talents but with alternative budget solutions. The client will appreciate your thoughtfulness and it will prevent the client from feeling embarrassed about her monetary limitations. You could gain a customer for a life-time by making sure that she never feels humiliated.

Remember to discuss hair color maintenance. Give her true ideas of how often she will need to come back for touch-ups to maintain her new look. Give her the estimated price for those future visits as part of the initial consultation.

The following is a sample of a Client Intake Form. This form is to be presented to the client just before you begin the formal consultation.

Client Intake Form

Client Intake Form

Dearest Client,

We want today's visit to be the most outstanding salon experience you have ever had! To achieve excellent service for you in a personal way, we would like to know about your preferences regarding your hair. Your hair is as important to us as it is to you! Please complete the following questionnaire so we may better serve you. All information will be kept private and will only be used as a reference in order to give you excellent personal service. Thank you for your time.

Name: _____

Address: _____

Telephone number: _____

Email address: _____

Were you referred to us by a friend? ____ Who? _____

In the past 6 months, have you had any of the following services?

Haircut _____

Hair Coloring Service _____

Lightening / bleach _____

Highlights _____

Permanent Wave _____

Texturizing Service _____

Relaxer _____

Straightener _____

What hair service would you like to discuss today? _____

Are you allergic to any salon chemicals? Please list allergies in the space provided and include nail, skin and hair product allergies. _____

For your protection, please list any medication that you are currently taking or have taken for the past year. _____

What hair products do you use on a regular basis? _____

What styling tools (blow-dryer, curling iron, etc.) do you use on a regular basis? _____

What additional information would like the stylist to know about your hair? _____

DATE: _____ Consulting Stylist _____

There are 10 key points to every basic consultation.

They are:

1. Review the Client Intake Form: Please do not interrupt the client when she is completing the Client Intake Form. Wait to begin your conversation after she is done and you have thoroughly read all of her answers. Do not ask her the same questions that she has just answered on her form. Ask questions that relate or give your further information about specifics that she has listed.

2. Assess your client's hair style: Observing the overall style of the client and her current hairstyle *can* give you insight as to what she may want, however do not underestimate the possibility that the client may want to go with a whole new look. It *is* typical that a person with an older classic style may want to stay classic -but would like a newer more updated cut and color. Keep an open mind with your observation.

3. Client preferences: Ask the client what are her preferences when it comes to styling her hair at home. Does she mind spending 20 minutes instead of 10? Does she incorporate blow-drying or flat-ironing? Find out what she likes about her current style and what she doesn't like.

4. Analysis: Assess the length, thickness, condition, texture and color of your client's hair. Make notes especially if you observe any problems that will need attention in the upcoming service. Take note of baldness, thinness, discolorations, damage or breakage.

5. Lifestyle of the client: A client's lifestyle often dictates the amount of time and effort she is willing to give to her hair on a daily basis. Is she solely in a professional environment in which her hairstyle is a significant part of her persona, or does she work at home in which she can have a less formal styling regimen?

6. Show her visuals: During the consultation provide the client with hairstyling books and see what styles she gravitates to. See if she has unrealistic expectations, or if she seems drawn to near-opposite hair textures as to what she possesses. If she tends to be drawn to smooth straight styles but her hair is over-curly, she will need to be informed of the process that would be necessary in achieving straight hair and what it will take to maintain and style it. However most people are abundantly aware of the hair that is on their head and what it will and will not do. Be open to what they tell you. The client is the one who has experienced the ups and downs personally and she will be your best source of knowledge.

7. Cut suggestions: After gathering this vast array of knowledge, use your best judgment and lay out the possibilities. Consider her hair type, her facial shape, her body type, her lifestyle and her color pallet. Show her haircuts that suit her hair texture.

8. Color suggestions: Show her hair coloring applications that fit her persona, lifestyle and hair type. Show her color swatches and color charts and explain several looks you could achieve and the colors you could use. Find out which ideas appeal to her the most.

9. Maintenance: Inform the client as to how often she will need to visit the salon to maintain cut and color. Inform her about home haircare, products that she will need to use and products or environmental elements to avoid.

10. Re-cap the plan: Repeat the plan to the client and confirm with her each step – and that all is understood.

You are ready to begin the next step.

Book the date in which your client can make her hair coloring service appointment. At least 24 to 48 hours before that day, your client must come in for a patch test. It might be possible that your client is ready to do the patch test during your initial consultation. As long as her appointment for hair coloring services is made after the 24 to 48 hours required.

Day of Service

In previous studies, we identified procedures for the predisposition test or the patch test. Upon determining that the patch test you have given your client is negative, you are ready to proceed with the hair coloring service. The first procedure in performing a hair coloring service is to acquire a completed Release Form from your client.

The Release Form

Most every salon, spa or school requires a Release Form.

To further familiarize yourself with this part of the client-side procedure, please review the Release Form below.

RELEASE FORM	
I, _____	
(client's full name)	
have been fully advised of the risks that are involved with chemical services that I am about to receive. I do hereby release all employees, owners, affiliates, agents and representatives of any claims or damages arising in any way connected with receiving these services.	
Client signature: _____	
Date: _____	
Salon representative: _____	
Is the client under age 18? _____	
If so, guardian signature required: _____	
Date: _____	
Salon representative: _____	

Throughout the consultation and coloring service stages it is necessary to keep the client's hair coloring service record nearby. It contains all pertinent information regarding the condition of the client's hair before services are rendered as well as other details.

It should also include facts such as the results of the patch test, the results of the strand test, the complete coloring service plan, and the end results. As you will see, there are other important topics that will be recorded as well.

Below is an example of a well written Hair Coloring Service Client Record.

(Beauty establishment records vary.)

Hair Coloring Service Client Record

Hair Coloring Service Client Record				
Date: _____				
Client's Name: _____				
Client's Address: _____				
Telephone: _____ email address: _____				
Client's skin tone / undertones: _____				
Eye color: _____		Overall Color Pallet: <input type="checkbox"/> Warm <input type="checkbox"/> Cool		
Hair prior to today's service:				
Type	Length	Texture	Density	Porosity
<input type="checkbox"/> straight	<input type="checkbox"/> short	<input type="checkbox"/> fine	<input type="checkbox"/> thin	<input type="checkbox"/> low
<input type="checkbox"/> wavy	<input type="checkbox"/> medium	<input type="checkbox"/> medium	<input type="checkbox"/> average	<input type="checkbox"/> average
<input type="checkbox"/> curly	<input type="checkbox"/> long	<input type="checkbox"/> coarse	<input type="checkbox"/> thick	<input type="checkbox"/> high
The hair has been previously colored by:		The hair has:	The hair needs:	
<input type="checkbox"/> all over / single-process color		<input type="checkbox"/> discoloration	<input type="checkbox"/> color correction	
<input type="checkbox"/> highlights		<input type="checkbox"/> damage	<input type="checkbox"/> color touch up	
<input type="checkbox"/> lowlights		<input type="checkbox"/> breakage	<input type="checkbox"/> toning	
<input type="checkbox"/> bleach only		<input type="checkbox"/> faded	<input type="checkbox"/> conditioning	
<input type="checkbox"/> bleach and toner / double-process				
<input type="checkbox"/> filler was used				
The previous hair color product(s) used: _____				
The previous hair lightener /toner used : _____				
Other chemical treatments: _____				
Natural hair color:				
Level: <input type="checkbox"/> 1 <input type="checkbox"/> 2, <input type="checkbox"/> 3, <input type="checkbox"/> 4, <input type="checkbox"/> 5, <input type="checkbox"/> 6, <input type="checkbox"/> 7, <input type="checkbox"/> 8, <input type="checkbox"/> 9, <input type="checkbox"/> 10				
Natural Hair Color Tone: <input type="checkbox"/> Warm <input type="checkbox"/> Cool				
Saturation of Color: <input type="checkbox"/> mild <input type="checkbox"/> medium <input type="checkbox"/> strong				
estimated % of gray or non-pigmented: ____% evenly distributed <input type="checkbox"/> yes <input type="checkbox"/> no				
notes about gray distribution / patches: _____				
Condition of scalp: <input type="checkbox"/> oily <input type="checkbox"/> normal <input type="checkbox"/> dry <input type="checkbox"/> sensitive				
Health of scalp: <input type="checkbox"/> eczema <input type="checkbox"/> psoriasis <input type="checkbox"/> sunburn <input type="checkbox"/> other _____				
Today's Hair Coloring Service:				
Describe the desired results requested by the client: _____				

Will color filler be used?: yes no

reason for filler and color of filler to be used: _____

Will a pre-conditioner be used?: yes no

type: _____

Describe hair coloring process to be performed: _____

Formula used: _____

Describe application technique: _____

Completed Service Results:

above average average below average too light too dark
streaks or demarcations unnatural tones

Comments: _____

What home maintenance advice did you give to client?:

What retail products did you sell to him?: _____

Did you book his next appointment? Yes ___ No ___ If not, did you give him a dated window of time that he needs to call you to schedule in order to maintain his new look?
Yes ___ No ___

Date: _____ Stylist: _____

Now that we have studied the many elements of a proper client record and a good color service plan, it is time to focus now on the importance of a preliminary strand test.

Preliminary Strand Test

Because of the many possible scenarios involving one's hair, such as environmental elements, chemicals, porosity, texture, level of natural color and damage, the only true way to be sure how the color service will turn out is to do a preliminary test strand.

By performing the preliminary strand test, you are never at risk of applying color to an entire head that has had a chemical service, that might not be readily observable, such as an over-the-counter lead-based hair color. If that hair coloring product has been used, then it could prohibit certain salon hair coloring applications.

It could be disastrous if a person was too embarrassed to tell you that he had used an over-the-counter product "for men" and you failed to do a preliminary strand test before performing a color service.

Many of the "for men" products are attractive to men because they color the hair gradually, and they can do it themselves, however the end result is often unnatural and even worse, it can give the hair a metallic appearance with off-color hues such as green. Overlapping that color with a salon application could create an undesired result, therefore a strand test is imperative for a good outcome.

The preliminary strand test is performed before the full color service is given.

You will be performing all hair coloring steps as you would for the complete color service but only using the amount of products needed for the test area; 1/2 inch by 1/2 inch strand. You will record: the formulation used, the processing time and the results of the strand test.

Preliminary Strand Test Procedures

Implements

- ✓ Color swatches and color charts
- ✓ Client record card and pencil
- ✓ Full-coverage water-proof patron cape
- ✓ Towels
- ✓ Comb
- ✓ Color gloves for stylist (keep several pairs ready for use)
- ✓ Plastic hair clips
- ✓ Frosting foils or pre-cut plastic wrap
- ✓ Hair coloring product
- ✓ Developer and measuring spoon
- ✓ Mixing bowl (plastic or glass) and color applicator brush
- ✓ Spray bottle filled with warm water
- ✓ Shampoo
- ✓ Timer

Procedures

- Consult with your client to confirm that nothing has changed since the initial consultation and that she still wants the same service as decided upon in the initial consultation.
- Confirm that there have been no changes in the condition of her hair and scalp.
- Confirm that the patch test is indeed negative
- Confirm the hair coloring application plan and the formulation remains the same as the patch test formulation
- Record this information onto her record card
- Drape the client as appropriate for a wet service
- Select the hair strand from the back of the head at the lower crown area and part off 1/2 inch by 1/2 inch section
- Clip the surrounding hair out of the way
- Place selected pre-sized coloring foil or pre-cut plastic wrap underneath the hair strand and secure the foil to the head with plastic clips
- Mix hair coloring products in the same ratio as for a full service application. If the hair coloring product calls for equal parts [*color: developer*], for example; 2 ounces of hair coloring product to 2 ounces of hydrogen peroxide; then keep your test mixture in that same ratio. For example: one tablespoon to one tablespoon. Estimate the amount needed for complete coverage of the hair strand.
- Apply the hair coloring product mixture to the strand and begin timing.
- Every 5 minutes, check how the color is developing
- Upon full development, make a notation on the client's record card of how long you left the color on the hair
- Hold a clean towel placed underneath hair strand and remove the plastic or foil sheet. Using your spray bottle of water, rinse the strand
- Add a small amount of shampoo to the test strand and shampoo.
- Mist to rinse.
- Towel dry and confirm that it is in fact a good results that would work for the full service.
- If there are any adjustments needed such as adding time, reducing time, changing the shade of the formulation, or application method.
- Make notes onto the record card.



Illustration 4: Preliminary Strand Test

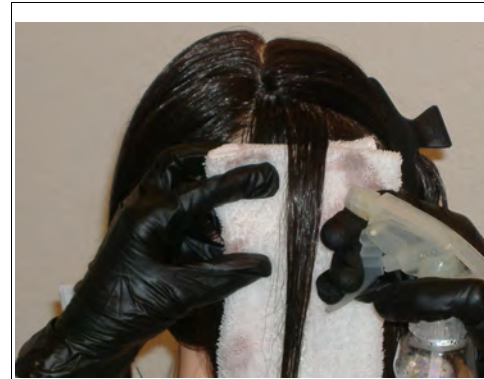


Illustration 5: Using your spray bottle of water, rinse the strand.

Upon the successful completion of the preliminary strand test you would be ready to complete the full color service.

Let's now review selected permanent hair coloring product applications.

Permanent Hair Coloring Product Applications

Single-process Hair Coloring

When the client wants a single color all over, it is achieved by what is called the single-process application. As indicated, the hair will be processed using one application of hair coloring product.

If the client's hair has never been colored, the first coloring procedure is called a virgin application. The basic virgin application procedures are as follows:

Implements

- ✓ Color swatches and color charts
- ✓ Client record card and pencil
- ✓ Full-coverage water-proof patron cape
- ✓ Towels
- ✓ Comb
- ✓ Color gloves for stylist (keep several pairs ready for use)
- ✓ Plastic hair clips
- ✓ Hair coloring product and color product tube roller
- ✓ Developer and measuring container
- ✓ Color applicator bottle – or if you prefer using a color brush and bowl method gather those items
- ✓ Shampoo and Conditioner
- ✓ Timer
- ✓ Any additional implements listed on the manufacturer's directions, such as a plastic cap, and cotton to cushion the cap, etc.

Preparation

- Check the client's patch test for confirmation that all is well and there is no inflammation or other signs of irritation from the hair coloring product.
- Record patch test analysis onto client's record card.
- Analyze the hair according to porosity, elasticity, texture, etc and record observations onto client's record card.
- Confirm the client's wishes as to the shade desired. Refer back to the color swatches and color charts that show the shades planned.

- Have the client to remove all jewelry and secure the items in her purse or pockets. All metals and materials are subject to damage when coming in contact with hair coloring products.
- Drape the client for the hair coloring service.
- Perform a strand test. Record the results onto the client's record card.
- With the client's hair dry, part the hair into **four** sections
- Apply stain prevention cream onto the skin at the hairline area of the forehead, face and neck and around the ears.
- Mix the hair coloring product and developer following the manufacturer's directions



Illustration 6: Apply stain protection cream; (single-use cup)

Product Application

- Select the area of the head that you anticipate as being the most resistant to hair color. ***Cosmetic Art Science has determined that on most of the population, the area of most resistance to hair coloring is the hairline and temple areas.***
- Choose the quarter section that you want to begin with.
- Using the rat tail of the applicator brush or the tip of the applicator bottle, part the hair into a 1/4th inch subsection.
- Hold the subsection somewhat perpendicular to the head and apply the hair color mid strand, staying 1/2 inch away from the scalp. Do not apply to the porous ends of the hair yet.
- You will begin processing according to the preliminary strand test results checking for color development along the way.
- Next apply hair coloring mixture to the hair at the scalp, again using the technique of 1/4th inch subsections.



Illustration 7: Part the hair into 1/4" subsection

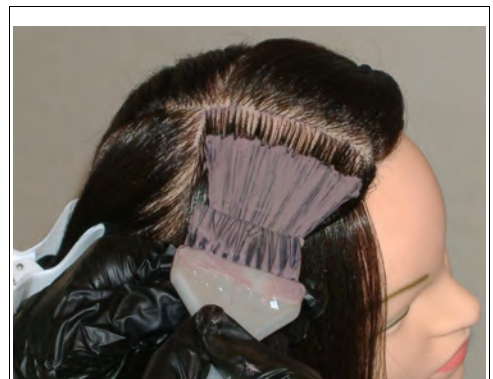


Illustration 8: Apply color to mid section staying 1/2" away from scalp

- Next apply color to the ends of the hair by applying and pulling through.
- Upon completion of color processing, at the shampoo bowl, apply warm water and work into a lather, then rinse thoroughly
- Use a towel and shampoo or stain remover to remove any stains on the client's skin
- Shampoo and condition as needed to remove color residue
- Towel dry and style as desired
- Report results onto the client's record card and keep on file
- Dispose of all single-use materials
- Seal containers, wipe them down and properly store them
- Fully sanitize all implements used per State regulations: to include bottles, bowls, brushes, cape and workstation
- Properly sanitize your hands with adequate soap and water



Illustration 9: Pull color through to ends

Single-process Retouch

After several weeks have gone by since the single-process hair coloring application, the hair will begin to show new growth making it necessary to do a retouch service.

A retouch is defined as: the act of coloring new growth to match the previously colored hair and refreshing the ends that have faded.

With a single-process retouch, you use the same methods of preparation for the client as you did for the original service. You will also perform a consultation, a patch test and a preliminary strand test as customary for a single-process hair coloring service.

Procedures for a Single-Process Retouch

Implements

- ✓ Color swatches and color charts
- ✓ Client record card and pencil
- ✓ Full-coverage water-proof patron cape

- ✓ Towels
- ✓ Comb
- ✓ Color gloves for stylist (keep several pairs ready for use)
- ✓ Plastic hair clips
- ✓ Hair coloring product and color product tube roller
- ✓ Developer and measuring container
- ✓ Color applicator bottle – or if you prefer using a color brush and bowl method gather those items
- ✓ Shampoo and Conditioner
- ✓ Timer
- ✓ Any additional implements listed on the manufacturer's directions, such as a plastic cap, and cotton to cushion the cap, etc.

Preparation

- Check the client's patch test for confirmation that all is well and there is no inflammation or other signs of irritation from the hair coloring product.
- Record patch test analysis onto client's record card.
- Analyze the hair according to porosity, elasticity, texture, etc and record observations onto client's record card.
- Confirm the client's wishes as to the shade desired. Refer back to the color swatches and color charts that show the shades planned.
- Have the client to remove all jewelry and secure the items in her purse or pockets. All metals and materials are subject to damage when coming in contact with hair coloring products.
- Drape the client for the hair coloring service.
- Perform a strand test. Record the results onto the client's record card.
- With the client's hair dry, part the hair into four sections
- Apply stain prevention cream onto the skin at the hairline area of the forehead, face and neck and around the ears.
- Mix the hair coloring product and developer following the manufacturer's directions

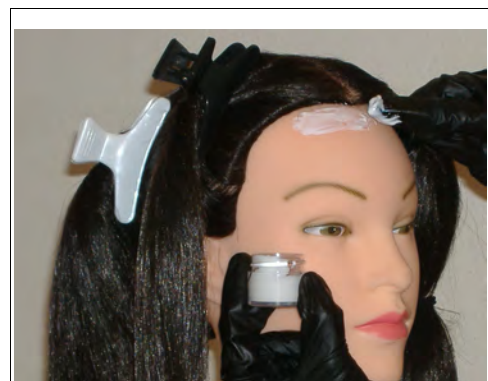


Illustration 10: Apply stain protection cream; (single-use cup)

Product Application

- Select the area of the head that you anticipate as being the most resistant to hair color.

- Choose the quarter section that you want to begin with.
- Using the rat tail of the applicator brush or the tip of the applicator bottle, part the hair into a 1/4th inch subsection.
- Hold the subsection somewhat perpendicular to the head and apply the hair color to the new growth only. Do not overlap the color product on previously colored hair.
- You will begin processing according to the preliminary strand test results checking for color development along the way.
- If the ends are greatly faded, you can apply a hair coloring product mixture that is deposit only that will match the newly colored regrowth. If the ends are only slightly faded you can simply rinse the retouch product mixture through to the ends, checking for color results along the way, then rinse.
- Upon completion of color processing, at the shampoo bowl, apply warm water and work into a lather, then rinse thoroughly
- Use a towel and shampoo or stain remover to remove any stains on the client's skin
- Shampoo and condition as needed to remove color residue
- Towel dry and style as desired
- Report results onto the client's record card and keep on file
- Dispose of all single-use materials
- Seal containers, wipe them down and properly store them
- Disinfect all implements used per State regulations: to include bottles, bowls, brushes, cape and workstation
- Properly sanitize your hands with adequate soap and water



Illustration 11: Part the hair into 1/4" subsection

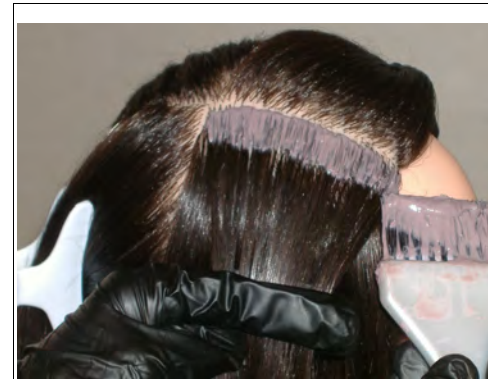


Illustration 12: Apply hair color to the new growth

Semi-permanent Hair Coloring

Semi-permanent hair coloring products are applied with a different technique than permanent hair coloring single-process applications. However, you will see similarities in the procedures.

Implements

- ✓ Color swatches and color charts
- ✓ Client record card and pencil
- ✓ Full-coverage water-proof patron cape
- ✓ Towels
- ✓ Comb
- ✓ Color gloves for stylist (keep several pairs ready for use)
- ✓ Plastic hair clips
- ✓ Hair coloring product
- ✓ Color applicator bottle – or if you prefer using a color brush and bowl method gather those items
- ✓ Shampoo and Conditioner
- ✓ Timer
- ✓ Any additional implements listed on the manufacturer's directions, such as a plastic cap, and cotton to cushion the cap, etc.

Preparation

- Check the client's patch test for confirmation that all is well and there is no inflammation or other signs of irritation from the hair coloring product.
- Record patch test analysis onto client's record card.
- Analyze the hair according to porosity, elasticity, texture, etc and record observations onto client's record card.
- Confirm the client's wishes as to the shade desired. Refer back to the color swatches and color charts that show the shades planned.
- Have the client to remove all jewelry and secure the items in her purse or pockets. All metals and materials are subject to damage when coming in contact with hair coloring products.
- Drape the client for the hair coloring service.
- Perform a strand test. Record the results onto the client's record card.
- Apply stain prevention cream onto the skin at the hairline area of the forehead, face and neck and around the ears.
- Prepare the hair coloring product



Illustration 13: Apply stain protection cream; (single-use cup)



Illustration 14: Part the hair into 1/2" subsection

Product Application

- Select the quarter section that you want to begin with
- Using the rat tail of the applicator brush or the tip of the applicator bottle, part the hair into 1/2 inch partings
- Apply color to the hair closest to the scalp – what would be considered the new growth area of the strand. Apply to all of the scalp area in 1/2 inch partings throughout each section.
- After applying the semi-permanent hair coloring product to all the scalp area in each of the four sections, apply color and pull through to the rest of the hair strands to the ends
- Set your timer to time processing
- If your color product manufacturer requires the use of a plastic cap, follow the instructions for that product
- Upon reaching the desired results, shampoo and condition as needed to remove color residue
- Towel dry and style as desired
- Report results onto the client's record card and keep on file
- Dispose of all single-use materials
- Seal containers, wipe them down and properly store them
- Disinfect all implements used per State regulations: to include bottles, bowls, brushes, cape and workstation
- Properly sanitize your hands with adequate soap and water

There are always new products coming out in the market place for semi-permanent hair coloring products.

The above procedures are the basic customary steps in coloring using a semi-permanent product, however always read the manufacturer's enclosures and labels for best results.



Illustration 15: Apply color to hair closest to the scalp



Illustration 16: Apply to all the scalp area in 1/2" partings

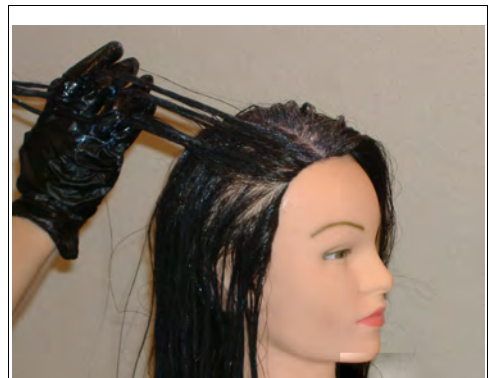


Illustration 17: Pull through to ends

Tips and Solutions

With any type of hair coloring product application, excellent results is always the goal. Knowing approaches for solving color problems and mistakes is invaluable. There seems to be an endless list of bad outcomes that can develop unexpectedly when using hair coloring products. There are many tried and true tips and solutions that we can put into action when problem issues occur.

Here a few tips and solutions.

- ***Chlorine in swimming pools can cause hair to acquire a green tone.*** There are products designed especially for that problem. They are designed to remove mineral buildup. If you use a mineral buildup remover and the hair still has a green tone, you can apply a no-lift deposit-only hair coloring product to neutralize the green. Observe the off color and it's undertones to determine which complementary color to use.
- The hair is less likely to turn brassy (orange) when lifting brown hair if a blue based permanent color is used.
- If lightening the hair more than 2 levels, you can expect brassy tones and you should be prepared to do a second step toner or glaze that deposits a neutralizing complementary color.
- If highlights turn out too light, you can use a deposit-only color or glaze to darken the entire head
- If highlights turn out too light you can also choose to create lowlights using foils to weave darkness back into the hair to tone it down.
- Always use an equivalent ratio of an off color's complementary color to neutralize it. If the main color to be neutralized is a primary color, then use a primary color to neutralize it. If the main color to be neutralized is a secondary color, then use a secondary color to neutralize it.
- For red hair, if you prefer a more warm coppery red, use a red-orange based color.
- For red hair, if you prefer a more true red, use red to red-violet.
- Only use a deposit-only color to refresh colored hair.
- If the hair turns out too dark, you can use a color remover product on it. Process per the manufacturer's instructions and watch for results. When the hair lifts to the desired level, remove product per manufacturer's instructions.
- Do not mix hair coloring products until you are ready to use them.
- Do not overlap color. It will create a line of demarcation and could also make the hair brittle where it overlaps.

Baliage Highlighting Technique

Baliage or Balayage, is a free-hand or free-form technique of applying lightener.

Using a lightly loaded color brush, you apply a slender line of lightener product mixture to the external layer of dry styled hair. This technique is an excellent way to create subtle highlights especially in all-one-length hair. It touches only the outer layer so it does limit the area in which you will see them. The colorist uses very thin long strokes. It is usually one of the more affordable hair coloring services available in the modern salon.



Illustration 18: Baliage highlighting technique

Implements

- ✓ Color swatches and color charts
- ✓ Client record card and pencil
- ✓ Full-coverage water-proof patron cape
- ✓ Towels
- ✓ Color gloves for stylist
- ✓ Hair lightener product
- ✓ Color brush and bowl
- ✓ Shampoo and Conditioner
- ✓ Timer

Preparation

- Perform client consultation and hair and scalp analysis and record finding onto the client's record card
- Using shade charts /color swatches and styling books, confirm the client's wishes as to the shade desired and to how many highlights the client desires
- Have the client to remove all jewelry and secure the items in her purse or pockets.
- Drape the client for the hair coloring service.
- Prepare the client's hair – it must be dry and styled before beginning the bialage highlighting technique service .
- Perform a preliminary strand test and record the results onto the client's record card
- Prepare the hair lightener product

Product Application

- Select the area that you want to begin with
- Using a lightly loaded color brush, begin at the top of the head and paint a very slender line from scalp to ends using the edge of the bristles as not to apply too thickly
- Work your way around the entire head according to how many highlights or how few the client desires
- Upon reaching the desired results, shampoo and condition as needed to remove color residue
- Towel dry and style as desired
- Report results onto the client's record card and keep on file
- Dispose of all single-use materials
- Seal containers, wipe them down and properly store them
- Disinfect all implements used per State regulations: to include bottles, bowls, brushes, cape and workstation
- Properly sanitize your hands with adequate soap and water

Temporary Hair Coloring

There are various types of temporary hair coloring products on the market. The formats can vary and include: **mascara** style, that is applied using a wand applicator, gel, mousse, spray-on, shampoo-in, and color liquids also called color rinse.

The following application outlines the proper procedures using a color rinse. Color rinses are very popular for home or salon use. It's most used when an all-over application is desired.

Implements

- ✓ Shampoo cape
- ✓ Towels
- ✓ Comb
- ✓ Gloves
- ✓ Temporary Hair Coloring Product
- ✓ Applicator Bottle
- ✓ Record Card and Pencil

Preparation

Perform a Client Consultation

Have the client to remove all jewelry and store it in her pocket book or pockets

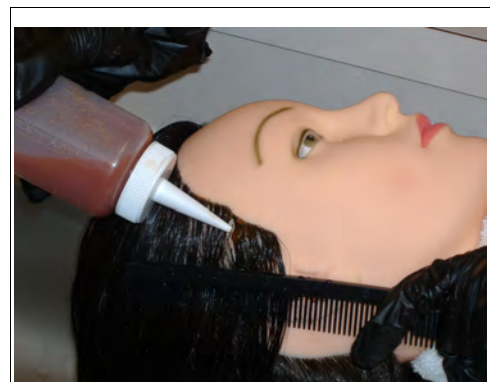


Illustration 19: Temporary hair coloring application

Procedure

- Drape the client for a hair coloring service
- Recline client at shampoo bowl and prepare them for the service
- Shampoo and towel dry the hair
- Read product instructions and shake product if required before applying
- Apply the color product starting at the hairline and comb throughout hair shafts to ends
- Apply color as needed for coverage over the entire head while combing
- Do not rinse the hair but blot any excess product from the hair with a towel
- Dry and style as desired
- Report results onto the client's record card and keep on file
- Dispose of all single-use materials
- Seal containers, wipe them down and properly store them
- Disinfect all implements used per State regulations: to include bottles, bowls, brushes, cape and workstation
- Properly sanitize your hands with adequate soap and water

Module 2:Infection Control (2 hours)

Module Outline

- Ohio State Board of Cosmetology Sanitary Standards
- Proper Cleaning and Disinfection
- OSHA Regulations

Learning objectives:

After completing this lesson you will be able to:

- identify requirements set forth in the Ohio State Board Sanitary Standards
- describe regulations for general sanitation
- identify methods of sanitizing
- list procedures for disinfection of implements and spills; blood and body fluids
- identify requirements for Shampoo bowls
- list rules for proper protection of neck
- describe rules for the use of creams
- identify the rule for use of styptics
- describe rules for special solution containers
- identify regulations for use of powder .
- list regulations for walls and floors
- describe proper laundering methods
- list regulations for personal hygiene
- identify standards for equipment disinfection
- describe standards for rooms used for massage
- identify OSHA standards that pertain to matters of safety, health and sanitation

Introduction

The purpose of this study module is to review the principles, practices and theories of the Ohio State Board of Cosmetology's Sanitary Standards Code.

The Ohio State Board's Cosmetology Mission Statement is publicly posted as follows:
The Mission of the Ohio State Board of Cosmetology is to protect and support the public through regulation and education while promoting the integrity of the industry.

In further support of this goal, we will study in detail the infection control regulations and procedures that make protection possible.

The Sanitary Standards Code includes:

- 4713-15-01 General sanitation
- 4713-15-02 Methods of sanitizing
- 4713-15-03 Disinfection of implements and spills; blood and body fluids
- 4713-15-04 Shampoo bowls
- 4713-15-05 Proper protection of neck
- 4713-15-06 Use of creams
- 4713-15-07 Use of styptics
- 4713-15-08 Special solution containers
- 4713-15-09 Use of powder .
- 4713-15-10 Walls and floors
- 4713-15-11 Proper laundering methods
- 4713-15-12 Personal hygiene
- 4713-15-15 Equipment sanitation
- 4713-15-17 Rooms Used For Massage

The following is the Ohio State Board of Cosmetology Sanitary Standards and as stated, is required for public and conspicuous display.

Ohio State Board of Cosmetology
Sanitary Standards

As required for public and conspicuous display per Ohio Revised Code 4713.081

4713-15-01 General sanitation

The entire licensed facility, including all equipment, employees, and implements contained therein must be continually maintained in a sanitary manner satisfactory to the "Board".

4713-15-02 Methods of sanitizing

Any implements to be used on any patrons shall be properly sanitized. All methods of sanitation shall be bacteriologically effective and all commercially prepared **sanitizing agents shall be used in accordance with manufacturer's instructions.**

4713-15-03 Disinfection of implements and spills; blood and body fluids

(A) *Disinfectants are inactivated and ineffective when visibly contaminated with debris, hair, dirt, particulates and/or when heavily soiled.* Thus, implements and surfaces shall first be thoroughly cleaned prior to disinfection. Disinfectants shall be prepared fresh daily or more often if solution becomes diluted or soiled. Contact Time: Leave surface wet or completely immersed, if possible, for a ten-minute contact time or longer as required by manufacturer for disinfecting against “HIV”, “HBV”, and all other viruses, bacteria, and fungi. In all cases the disinfectant used shall be in accordance with the manufacturer’s recommendation or other guidance in this rule.

(B) All used implements shall first be cleaned of visible dirt, debris and/or bodily fluids with warm soapy/detergent water and then disinfected by completely immersing in an "appropriate disinfectant".

(1) All non-porous implements, which come in contact with intact skin, shall be thoroughly cleaned before immersion in an “appropriate disinfectant”. An “appropriate disinfectant” for objects, which come in contact with intact skin is an environmental protection agency registered, hospital grade bactericidal (esp. pseudomonacidal), virucidal, and fungicidal that is mixed and used according to the manufacturer’s directions or household bleach in a ten percent solution for ten minutes.

(2) All non-porous implements, which have come in contact with blood or body fluids, shall be thoroughly cleaned before immersion in an “appropriate disinfectant”. An “appropriate disinfectant” includes an environmental protection agency registered tuberculocides or products registered against “HIV”/”HBV” or household bleach in a ten percent solution for ten minutes. For personal protection against blood-borne pathogens, cleanup should always be done wearing protective gloves and also gowns, and eye protection for large spills. All implements, which have come in contact with blood or body fluids, shall be disinfected by complete immersion in an “appropriate disinfectant”.

(C) Any non-porous surface that comes in contact with blood or body fluids shall first be cleaned with warm soapy/detergent water, and then an “appropriate disinfectant” shall be used. An “appropriate disinfectant” for surfaces, which have come in contact with blood or body fluids, include environmental protection agency registered tuberculocides or products registered against “HIV”/”HBV” or household bleach in a ten percent solution for ten minutes. For personal protection against blood-borne pathogens, cleanup should always be done wearing protective gloves and also gowns, and eye protection for large spills.

(D) *Household bleach is an effective disinfectant for all purposes in a salon.* Bleach solutions shall be mixed daily and used in a ten to one solution (nine parts tap water and one part bleach). Bleach shall be kept in a closed covered container and not exposed to sunlight. Bleach may produce eye irritation or mouth, esophageal, and gastric burns. Bleach is corrosive to metals. Bleach vapors might react with vapors from other chemicals, and therefore should not be placed or stored near other chemicals used in

salons (i.e. acrylic monomers, alcohol, other disinfecting products, or near flame). Used or soiled bleach solution shall be discarded every day by pouring down sink basin or toilet bowl.

(E) All bottles and/or containers other than the original manufacturers' container used for application of "appropriate disinfectant" shall be properly labeled as to contents, percentage solution and date mixed.

(F) Cleanup items from minor cuts shall be double bagged or placed in biohazard containers, regardless of quantity. Double bagging could mean use a zip lock baggie for the waste, and then put the baggie in a normal trash bag. If the spill or cleaning materials are of a relatively larger volume, those materials used to clean spills, which do contain blood spills or bodily fluids, shall be weighed logged on a disposal log sheet and double bagged for disposal in the normal trash. If in doubt of what to do, call the local health board for directions.

(G) All food and drug administration designated "medical devices" shall only be disinfected by appropriate environmental protection agency approved disinfectants, for example microdermabrasion service wand, tip or head.

(H) Environmental protection agency approved disinfectants are indicated by their registration number on the product label and the manufacturer's directions for use shall always be followed. SRR Approved by the Board on 9/9/2008 Page 1 of 2 SRR Approved by the Board on 9/9/2008 Page 2 of 2

4713-15-04 Shampoo bowls

All shampoo bowls, shampoo boards, cups, or similar items shall be sanitized after each use.

4713-15-05 Proper protection of neck

No shampoo apron, hair cloth, or similar article shall be placed directly against the neck of the patron, and they shall be kept from direct contact with the patron by means of a paper neck band or clean towel. No neck band of paper or cloth shall be used more than once. No towels shall be used more than once without proper laundering.

4713-15-06 Use of creams

All creams and other semi-solid substances shall be removed from containers with a clean sanitized spatula. Spatulas made of a washable nonabsorbent material shall be sanitized before being used again. Spatulas made of wood shall be discarded after one use.

4713-15-07 Use of styptics

Styptics to arrest bleeding shall be used only in liquid or powder form and shall be applied by clean gauze, cotton, or any other sanitary item.

4713-15-08 Special solution containers

All cosmetologists shall use product containers to prevent the contamination of unused solution.

4713-15-09 Use of powder

All powder shall be dispensed from a shaker or similar receptacle and shall be applied with disposable puffs or cotton pledgets, or other disposable applicators.

4713-15-10 Walls and floors

Walls, floors and fixtures shall be sanitary and kept clean at all times. Floor covering shall be totally nonabsorbent and extend at least in a three foot radius from the center of any styling or shampoo service chair.

4713-15-11 Proper laundering methods

All cloth towels, robes, and similar items shall be laundered in a washing machine with laundry detergent and chlorine bleach used according to manufacturer's directions for sanitation purposes. A closed dustproof cabinet must be provided for clean towels and linen, and a closed dustproof hamper or receptacle must be provided for all soiled towels and linens.

4713-15-12 Personal hygiene

Every person engaged in the practice of cosmetology or any of its branches shall thoroughly cleanse his or her hands with soap and water or an alcohol-based handrub immediately before serving each patron. All licensees shall wear a clean washable outer garment while serving a patron in a salon. No licensees shall carry or store instruments in their pockets, in a belt, in a leather case or in an apron.

4713-15-15 Equipment sanitation

All equipment used in a salon shall be maintained in a sanitary manner. Salons shall maintain a copy of the manufacturer's/owner's manual for all equipment in service.

(A) Electrical equipment, (whether professional or consumer design) which provides circulating, whirlpool or vacuum effects, (for example, all microdermabrasion machines, facial machines, pedicure stations, nail drills and body treatment equipment) shall be cleaned and disinfected after each use. Such equipment shall also be flushed, cleaned and disinfected on a bi-weekly schedule. A record of such cleaning shall be kept on forms provided by the "Board" and available upon any salon inspection. The bi-weekly cleaning shall include the use of a hospital grade disinfectant, ten per cent bleach solution or an

equivalent solution approved by the “Board” and circulated through the machine for the minimum time recommended by the manufacturer.

(B) Heated electrical equipment such as, all types of thermal irons, pressing combs and stoves are sanitized by the heat source. Unheated parts of such equipment shall be cleaned and disinfected as well, according to manufacturers’ recommendations.

(C) Any other electrical equipment, including clippers and attachments shall be cleaned and disinfected after each use. Electrical clipper blades and attachments shall be disinfected using the following method:

(1) Remove hair and/or all foreign matter;

(2) Completely saturate clipper blade and attachment with an EPA-registered high-level disinfectant solution, spray, or foam used according to the manufacturer’s instructions.

4713-15-17 Rooms Used For Massage

Rooms used for massage services may be used for other compatible services such as esthetics as long as no sanitary problems result. If cosmetic therapy, massage therapy, or other professional service is provided at the salon under section 4713.42 of the Revised Code, sanitize all instruments and supplies used in the cosmetic therapy, massage therapy, or other professional service.

It is important to stay current on State and Federal issues concerning safety, health, and infection control.

To fully comply with safety, health and sanitation standards in the salon, we must also observe federal regulations set by the the United States Department of Labor's Occupational Safety and Health Administration regarding the use, handling and storage of chemicals.

Chemicals

All employers must have a written hazard communication program to get information to their employees. That's why there are rules about labeling product containers and distributing MSDS - (Material Safety Data Sheets).

The written program does not have to be lengthy or complicated.

The written program must be available to employees, their designated representatives, the Assistant Secretary of Labor for Occupational Safety and Health, and the Director of the National Institute for Occupational Safety and Health.

Document Content for MSDS

The following information explains what a MSDS must contain.

SECTION I: MANUFACTURER'S NAME AND CONTACT INFORMATION SECTION

Manufacturer's name and address Emergency phone number

II: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION SECTION

Lists hazardous components and safe exposure limits

III: PHYSICAL/CHEMICAL CHARACTERISTICS SECTION

Physical state (gas, liquid, or solid), boiling point, freezing point, vapor pressure, specific gravity

IV: FIRE AND EXPLOSION HAZARD DATA SECTION

Flash point, extinguishing media, special fire fighting procedures, unusual fire and explosion hazards, if any

V: REACTIVITY DATA SECTION

Stability, incompatibility, hazardous decomposition or by-products, if any

VI: HEALTH HAZARD DATA SECTION

Routes of entry/exposure Health hazards Carcinogenicity Signs and symptoms of exposure Medical conditions generally aggravated by exposure

VII: PRECAUTIONS FOR SAFE HANDLING AND USE SECTION

Emergency and First Aid procedures Steps to be taken in case material is released or spilled Waste disposal methods Precautions to be taken in handling and storing

VIII: CONTROL MEASURES

Respiratory protection Ventilation requirements Personal Protective Equipment

The following is a sample of an MSDS.

SAMPLE MSDS

XYZ Company		Material Safety Data Sheet										
I. Product		Claudia's Quick Clean and Shine										
Description		Orange liquid, a phenolic odor										
Other Designations	Distributor	Emergency Telephone Nos										
Non-Porous Surface Sanitizer	XYZ Company 123 Drive City, State, Zip	For Medical Emergencies call (000) 111-2222 Transportation Emergencies call (000) 222-1111										
II. Health Hazard Data		III. Hazardous Ingredients										
Corrosive... First Aid For: Eye Contact... Skin Contact... Inhalation... Ingestion... HMIS Hazard Scale...		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Ingredient</u></th> <th style="text-align: left;"><u>Concentration</u></th> <th style="text-align: left;"><u>Worker Exposure Limit</u></th> </tr> </thead> <tbody> <tr> <td>.....</td> <td>.....</td> <td>.....</td> </tr> <tr> <td>.....</td> <td>.....</td> <td>.....</td> </tr> </tbody> </table>		<u>Ingredient</u>	<u>Concentration</u>	<u>Worker Exposure Limit</u>
<u>Ingredient</u>	<u>Concentration</u>	<u>Worker Exposure Limit</u>										
.....										
.....										
IV. Special Protection and Precautions		V. Transportation and Regulatory Data										
Hygienic practices Personal Protection Equipment		Not restricted										
VI. Spill Procedures / Waste Disposal		VII. Reactivity Data										
Spill Procedures Waste Disposal		Stable under normal use										
VIII. Fire and Explosion Data		IX. Physical Data										
Not flammable or explosive		Boiling point Soluble in water										

News Release

When new information regarding a hazardous chemical is discovered, OSHA releases the information to the public.

The following is a copy of an OSHA News Release posted by the Administration.
OSHA (Occupational Safety and Health Administration)

HAZARD ALERT April 11th, 2011

Hair Smoothing Products That Could Release Formaldehyde

The Occupational Safety and Health Administration (OSHA) and several State OSHA programs are investigating questions and complaints from hair salon owners and workers about possible formaldehyde exposure from using Brazilian Blowout and other hair smoothing products. Some of these products have been labeled as "formaldehyde-free." Oregon's Occupational Safety and Health Administration, California's Occupational Safety and Health Administration, the Connecticut's Dept of Public Health and several other state agencies have already issued warnings about these products to salon owners, stylists, other salon workers, and clients. This Hazard Alert provides information about OSHA's investigations, the health hazards of formaldehyde, and how to protect workers using hair smoothing products that contain or release formaldehyde.

Recent reports from Oregon OSHA, California OSHA, and now Federal OSHA should alert salon owners and stylists to look closely at the hair smoothing products they are using to see if they contain methylene glycol, formalin, methylene oxide, paraform, formic aldehyde, methanal, oxomethane, oxymethylene, or CAS Number 50-00-0. All of these are names for or treated as formaldehyde under OSHA's Formaldehyde standard. Products containing them can expose workers to formaldehyde; employers who manufacture, import, distribute, or use the products must follow OSHA's formaldehyde standard.

What have OSHA's investigations found?

Federal OSHA and State OSHA programs are investigating complaints from stylists and hair salon owners about exposure to formaldehyde while using GIB LLC dba (doing business as) Brazilian Blowout products and other hair smoothing products. OSHA has found formaldehyde in the air when stylists use hair smoothing products. Some had "formaldehyde-free" on the label or did not list formaldehyde on the product label or in the Material Safety Data Sheet (MSDS).

During one investigation, Federal OSHA's air tests showed formaldehyde at levels greater than OSHA's limits in a salon using Brazilian Blowout Acai Professional Smoothing Solution, even though the product was labeled "formaldehyde-free." In most cases, OSHA found that hair salon owners did not know that a hair smoothing product contained or could expose workers to formaldehyde because manufacturers, importers, and distributors did not include the correct warnings on product information.

California OSHA recently found violations at one importer and distributor, GIB LLC dba Brazilian Blowout, that failed to list formaldehyde as a hazardous ingredient on the MSDS provided to downstream users (e.g., salon owners, stylists) for two products: Brazilian Blowout Acai Professional Smoothing Solution and Brazilian Blowout Professional Brazilian Blowout Solution. The MSDS also did not list the health effects from formaldehyde exposure. The MSDS is required to provide users information about the chemicals in a product, the hazards to workers, and how to use a product safely.

The first reports about formaldehyde in hair smoothing products surfaced when Oregon OSHA investigated a complaint from a hair stylist who had nosebleeds, eye irritation, and trouble breathing while using a Brazilian Blowout product labeled "formaldehyde-free." After testing the product, Oregon OSHA found that the product contained formaldehyde, a chemical that can cause the health problems reported by the stylist. Oregon OSHA tested more than 100 samples of keratin-based hair smoothing products and found formaldehyde levels in some products well above what could legally be labeled as "formaldehyde-free." In addition to the Brazilian Blowout products, Oregon OSHA found that other manufacturers, importers, and distributors of hair smoothing products also had not listed formaldehyde or included hazard information on the label or in the MSDS. Based on these findings, Oregon OSHA published a Hazard Alert and a full report in October 2010. Oregon OSHA also alerted Federal OSHA and State OSHA programs where the products were manufactured, imported, or distributed because the hazard information for the product was not correct and did not meet the requirements of OSHA's Hazard Communication standard or State equivalent).

OSHA continues to work with other agencies (e.g., Food and Drug Administration, National Institute for Occupational Safety and Health) to look at formaldehyde exposures in other salons and to make sure that workers and the public have correct information about these products.

What is formaldehyde and how can it affect my health?

Formaldehyde is a colorless, strong-smelling gas that presents a health hazard if workers are exposed.

You can be exposed to formaldehyde if you breathe it into your lungs, if it gets into your eyes, or if it is contained in a product that gets onto your skin. You can also be exposed accidentally if you touch your face, eat food, or drink after using a product containing formaldehyde without first washing your hands. It can irritate the eyes and nose, and cause coughing and wheezing. **Formaldehyde is a "sensitizer," which means that it can cause allergic reactions of the skin, eyes, and lungs such as asthma-like breathing problems and skin rashes and itching.** When formaldehyde is in a product that gets sprayed into the eyes, it can damage the eyes and cause blindness. It is also a cancer hazard that is linked to nose and lung cancer.

Formaldehyde is a health hazard, whether in a product or in the air. OSHA's Formaldehyde standard covers employers who use formaldehyde, and products that contain or release formaldehyde. (OSHA has also published a formaldehyde fact sheet

Why do some hair smoothing products expose me to formaldehyde?

Many keratin-based hair smoothing products contain formaldehyde dissolved (and chemically reacted) in water and other ingredients in the product. Because of the way the formaldehyde reacts in these products, some manufacturers, importers, or distributors might list other names for formaldehyde on product information or might claim that the product is "formaldehyde-free." Formaldehyde might be listed as methylene glycol, formalin, methylene oxide, paraform, formic aldehyde, methanal, oxomethane, oxymethylene, or CAS Number 50-00-0. All of these are names for formaldehyde under OSHA's Formaldehyde standard. The bottom line is that formaldehyde can be released from hair smoothing products that list any of these names on the label and workers can breathe it in or absorb it through their skin. Workers can be exposed to formaldehyde during the entire hair straightening process, especially when heat is applied (e.g. blow-drying, flat ironing).

How would I know if the product I'm using could expose me to formaldehyde?

Read the product label and MSDS to determine if they list methylene glycol or any of the other names for formaldehyde listed above. If they do, the product can expose you to formaldehyde. Under OSHA's Hazard Communication standard, salon owners and other employers must have an MSDS for each product used in the salon that contains a hazardous chemical. Employers need to review the MSDSs they receive and make sure they understand the hazards of the products they use in their salon(s). They must also make the MSDSs available to their workers (e.g., stylists) and train all workers using the product about the hazards and how to use it safely. If employers do not receive an MSDS automatically, they should request one. If the MSDS does not look complete (e.g., blank spaces that are not completed) then the employer should request a new one from the manufacturer. If the request does not produce the information needed, then the employer should contact the local OSHA Area Office for assistance in obtaining the MSDS.

Be aware that an MSDS may not contain all of the hazard information required, as initially found in the case of Brazilian Blowout products. In the Oregon case, it was only after a stylist reported health problems while using the products that the investigation began. Workers need to report any health problems they think are from the products they use in the workplace to their employer and employers need to follow up on reports of health problems from workers.

When are manufacturers, importers, and distributors of hair smoothing products required to list formaldehyde as an ingredient in their products?

OSHA requires manufacturers of products that contain or release formaldehyde to include information about formaldehyde and its hazards on the label and in the MSDS.

Formaldehyde must be listed if it is in the product at 0.1% or more (as a gas or in solution) or if the product releases formaldehyde above 0.1 parts of formaldehyde per million parts of air. Salons and other employers that directly import hair smoothing products from other countries have the same responsibilities as a manufacturer under the Hazard Communication standard - they must determine the hazards of the product and develop labels and MSDSs that communicate the hazards to users. These requirements are explained in OSHA's Hazard Communication standard (commonly referred to as the "Worker's Right-to-Know Rule") and OSHA's Formaldehyde standard.

What can I do to reduce exposure to formaldehyde when using formaldehyde releasing hair smoothing/straightening products?

Employers, stylists, and other salon workers should read the product information and MSDSs for the products they buy and use so that they know what chemicals are in them and how to use them safely in the workplace. The best way to control exposure to formaldehyde is to use products that do not list formaldehyde, formalin, methylene glycol, or any of the other names for formaldehyde listed above on the label or in the MSDS. Beauty care companies are now making and selling products that they claim do not contain formaldehyde in the solution. Choosing one of these products might eliminate the risk of formaldehyde exposure. Note that just because a product doesn't list formaldehyde, formalin, or methylene glycol does not mean that it does not contain any other hazardous ingredients.

If salon owners decide to use products that contain or release formaldehyde, then they must follow the requirements in OSHA's Formaldehyde standard. The standard requires that employers test the air to find out the level of formaldehyde present in the air when the product is being used. If the test shows that formaldehyde is present at levels above OSHA's limits (0.75 parts of formaldehyde per million parts (or ppm) of air during an 8-hour work shift or 2 ppm during any 15-minute period), then the employer must:

- Install air ventilation systems in the areas where these products are mixed and used to help keep formaldehyde levels below OSHA's limit and perform regular maintenance to make sure the systems work correctly;
- When possible, require workers to use lower heat settings on blow-dryers and flat irons used during the process;
- Give workers respirators, if needed; train them to use the respirator properly; and meet the other requirements in OSHA's Respiratory protection standard;
- Ensure workers understand the information on a product's label and MSDS;

- Post signs at entryways to any area where formaldehyde is above OSHA's limit to tell workers of the danger and stating that only authorized personnel may enter;
- Tell workers about the health effects of formaldehyde, how to use the product safely, and what personal protective equipment to wear while using the product; and
- Train workers how to safely clean up spills and properly throw products out.

In addition, where the tests show that formaldehyde is present in the air at a level of 0.5 ppm during an 8-hour work shift or 2 ppm during any 15-minute period, then the employer must:

- Get workers the right medical attention (e.g., doctor exams), and
- Test the air periodically to make sure that formaldehyde levels are below OSHA's limits.

Whether or not air tests show formaldehyde levels above OSHA's limits, employers must follow certain parts of the standard if a product contains formaldehyde:

- Give employees appropriate gloves and other personal protective equipment (e.g., face shield, chemical splash goggles, chemical-resistant aprons) and train them on how to use this equipment while mixing and applying the products;
- Explain to workers how to read and understand the information on a product's label and MSDS;
- Make sure the workplace has eye and skin washing equipment if products that contain formaldehyde could be splashed onto the workers' skin or into their eyes;
- Train workers how to safely clean up spills and properly throw products out, and;
- Get workers the right medical attention (e.g., doctor exams) if they develop signs and symptoms of an exposure to formaldehyde or are exposed to large amounts of formaldehyde during an emergency (e.g., a large spill).

Employers must also keep records of the air tests they perform, any medical attention needed by their employees, and respirator fit-testing.

For more information about how to control formaldehyde exposures in hair salons, read Oregon OSHA's hazard alert and Cal/OSHA's Advisory.

How can OSHA help you?

OSHA continues to monitor ongoing inspections that may have nationwide impact to ensure that health hazards and appropriate protections for products containing hazardous chemicals are communicated properly on the labels and MSDS. OSHA developed this webpage to give workers and employers useful, up-to-date information on formaldehyde hazards that might be present when using hair smoothing products that contain or release formaldehyde. Employers and workers should read OSHA's

Formaldehyde Fact Sheet for more information about formaldehyde hazards and how to work with it safely. Contact your local OSHA office if you have any questions about a product that you are using or its MSDS. Hair salon owners can also contact OSHA's free and confidential consultation service to help determine if there are hazards at their workplace. On-site consultations do not result in penalties or citations.

What rights do workers have?

Workers have a right to a safe workplace. The Occupational Safety and Health Act of 1970 (OSH Act) was passed to prevent workers from being killed or seriously harmed at work. The law requires employers to provide their workers with a workplace that is free of potential hazards. The OSH Act created the Occupational Safety and Health Administration (OSHA), which sets and enforces protective workplace safety and health standards. OSHA also provides information, training and assistance to workers and employers. Workers may file a complaint to have OSHA inspect their workplace if they believe that their employer is not following OSHA standards or that there are serious hazards.

- Disclaimer -

This Hazard Alert is not a standard or regulation, and it creates no new legal obligations. It contains recommendations as well as descriptions of mandatory safety and health standards. The recommendations are advisory in nature, informational in content, and are intended to assist employers in providing a safe and healthful workplace. The Occupational Safety and Health Act requires employers to comply with safety and health standards and regulations promulgated by OSHA or by a state with an OSHA-approved state plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

Study the following terms and definitions.

Glossary

Terms and Definitions:

<i>aniline dye</i>	an·i·line [an-l-in] Origin: 1860–65 *any of a large number of synthetic dyes derived from aniline, usually obtained from coal tar.
<i>decolorization</i>	de·col·or·iza·tion [dē-,kəl-ə-rə-'zā-shən] Origin: 1830–40 *the act of displacing and eliminating melanin pigment in the hair
<i>developer</i>	de·vel·op·er [dih-vel-uh-per] Origin: 1825–35 *an agent that when added to an oxidative hair coloring product creates a chemical reaction using oxygen to form color dyes in order to stain hair
<i>eumelanin</i>	eu·mel·a·nin [yoo-mel-uh-nin] *the pigment that is found in natural hair that gives it tonal hues of blacks and browns
<i>hydrogen peroxide</i>	Origin: 1870–75 *a colorless liquid, H ₂ O ₂ , used chiefly as an antiseptic and a bleaching agent
<i>level</i>	lev·el [lev-uh l] Origin: 1300–50 Middle English, variant of livil - plummet line, level, diminutive of lībra balance, scales; for formation *position or status in a scale of values; *amount or degree of progress; stage; *A relative degree, as of intensity or concentration
<i>melanin</i>	mel·a·nin [mel-uh-nin] Origin: 1835–45 *any of a group of pigments present in the hair

oxidation ox·i·da·tion [ok-si-dey-shuh n]
Origin: 1785–95
*the chemical combination of a substance with oxygen

pheomelanin *Pheomelanin is the pigment that is found in natural hair that gives it tonal hues of blonds and reds.

primary colors *the 3 pure colors that can not be created by combining other colors: *yellow, red, blue

secondary colors *the colors created from combining equal parts of 2 primary colors: *orange, green, violet

tertiary colors —
the colors created when combining equal amounts of a primary color and it's neighboring secondary color on the color wheel:
*yellow-orange, yellow-green, red-orange, blue-green, red-violet, blue-violet

This concludes our study of Hair Coloring & Infection Control:
CE Course: Ohio 8 Hour Cosmetolog{ CE Course (8 hours)

Credits:

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200 Constitution Ave., NW, Washington, DC 20210 * 800-321-OSHA (6742)
TTY: 877-889-5627 * www.OSHA.gov

U.S Environmental Protection Agency * Ariel Rios Building 1200 Pennsylvania Avenue, N.W.
Washington, DC 20460 * (202) 272-0167 * TTY (202) 272-0165
www.epa.gov

U.S Food and Drug Administration: www.fda.gov * 10903 New Hampshire Ave Silver Spring, MD
20993-0002 * 1-888-INFO-FDA (1-888-463-6332)

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