CHAPTER 13

Chemical Hair Relaxing and Soft Curl Permanent

LEARNING OBJECTIVES

After completing this chapter, you should be able to:

1. Define the purpose of chemical hair relaxing.
2. List the different products used in chemical hair relaxing.
3. Explain the difference between sodium hydroxide relaxers and thio relaxers.
4. Describe the three basic steps of chemical hair relaxing.
5. Explain client analyzation for a chemical hair relaxing treatment.
6. Demonstrate the procedures used for a sodium hydroxide hair relaxing process.
7. Demonstrate the procedures used for an ammonium thioglycolate hair relaxing process.
8. Demonstrate the procedures used for a chemical blow-out.
9. Demonstrate the procedures used for a soft curl permanent.

NATIONAL SKILL STANDARDS

This chapter provides you with the necessary information to master these National Industry Skill Standards for Entry-Level Cosmetologists:

- Consulting with clients to determine their needs and preferences
- Performing hair relaxation and wave formation techniques in accordance with manufacturer's directions
- Providing styling and finishing techniques to complete a hairstyle to the satisfaction of the client
- Conducting services in a safe environment, taking measures to prevent the spread of infectious and contagious diseases

INTRODUCTION

Completed: Learning Objective #1

DEFINE PURPOSE OF CHEMICAL HAIR RELAXING

Chemical hair relaxing is the process of permanently rearranging the basic structure of overly curly hair into a straight form. When done professionally, it leaves the hair straight and in a satisfactory condition, to be set into almost any style. ✔

CHEMICAL HAIR RELAXING PRODUCTS

Completed: Learning Objective #2

LIST CHEMICAL HAIR RELAXING PRODUCTS

The basic products that are used in chemical hair relaxing are a chemical hair relaxer, a neutralizer, a protein-rich moisturizer to stabilize the hair, and a petroleum cream, which is used as a protective base to protect the client's scalp during the sodium hydroxide chemical straightening process. ✔

CHEMICAL HAIR RELAXERS

The two general types of hair relaxers are ***sodium hydroxide,*** which does not require pre-shampooing, and ***ammonium thioglycolate,*** which may require pre-shampooing.

Sodium hydroxide (caustic type hair relaxer) both softens and swells hair fibers. As the solution penetrates into the cortical layer, the cross-bonds (sulfur and hydrogen) are broken. The action of the comb, the brush, or the hands in smoothing the hair and distributing the chemical straightens the softened hair.

Manufacturers vary the sodium hydroxide content of the solution from 1½% to 3%, and the pH factor between 12 and 14. In general, the more sodium hydroxide used and the higher the pH, the quicker the chemical reaction will take place on the hair, and the greater the danger will be of hair damage.

> **CAUTION**
>
> *Because of the high alkaline content of sodium hydroxide, great care must be taken in its use.*

Completed: Learning Objective #3
SODIUM HYDROXIDE VS. THIO RELAXERS

Although ammonium thioglycolate (thio type relaxer often called a softener, rearranger, or breakdown cream) is less drastic in its action than sodium hydroxide, it softens and relaxes overly curly hair in somewhat the same manner. You may recall that this is the same solution used in permanent waving. ✔

NEUTRALIZER

The ***neutralizer*** stops the action of any chemical relaxer that may remain in the hair after rinsing. The neutralizer for a thio type relaxer re-forms the cysteine (sulfur) cross-bonds in their new position and rehardens the hair.

BASE AND "NO BASE" FORMULAS

When using sodium hydroxide, there are two types of formulas, base and no base. The base formula is a petroleum cream that is designed to protect the client's skin and scalp during the sodium hydroxide chemical straightening process. This protective base also is important during a chemical straightening retouch. It is applied to protect hair that has been straightened previously, and to prevent over-processing and hair breakage.

Petroleum cream has a lighter consistency than petroleum jelly, and is formulated to melt at body temperature. The melting process ensures complete protective coverage of the scalp and other areas with a thin, oily coating. This helps to prevent burning and/or irritation of the scalp and skin. Previously treated hair should be protected with cream conditioner during the straightening process.

In recent years "no base" relaxers have become more commonly used. These relaxers have the same chemical reaction on the hair, although usually the reaction is milder. The procedure for the application of a "no base" relaxer is the same as for a regular relaxer except that the base cream is not applied. It is advisable to use a protective cream around the hairline and over the ears.

STEPS IN CHEMICAL HAIR RELAXING

All chemical hair relaxing involves three basic steps: ***processing, neutralizing,*** and ***conditioning.***

PROCESSING

As soon as the chemical relaxer is applied, the hair begins to soften so that the chemical can penetrate to loosen and relax the natural curl.

NEUTRALIZING

As soon as the hair has been sufficiently processed, the chemical relaxer is thoroughly rinsed out with warm water, followed by either a built-in shampoo neutralizer or a prescribed shampoo and neutralizer.

Completed: Learning Objective #4

THREE BASIC STEPS IN CHEMICAL HAIR RELAXING

CONDITIONING

Depending on the client's needs, the conditioner may be part of a series of hair treatments, or it may be applied to the hair after the relaxing treatment. ✔

CAUTION

Overly curly hair that has been damaged from heat appliances or other chemicals must be reconditioned before a relaxer service is performed.

Hair treated with lighteners or metallic dyes must not be given a chemical hair relaxer, because it might cause excessive damage or breakage.

RECOMMENDED STRENGTH OF RELAXER

The strength of relaxer used is determined by the strand test. The following guidelines can help in determining which strength relaxer to use for the test.

1. Fine or tinted hair—Use mild relaxer.
2. Normal, medium-textured virgin hair—Use regular relaxer.
3. Coarse virgin hair—Use strong or super relaxer (but if the client has a sensitive scalp, use a regular or mild relaxer).

ANALYSIS OF CLIENT'S HAIR

It is essential that the cosmetologist have a working knowledge of human hair, particularly when giving a relaxing treatment. You will learn to recognize the qualities of hair by visible inspection, feel, and special tests. Before attempting to give a relaxing treatment to overly curly hair, the cosmetologist must judge its texture, porosity, elasticity, and the extent, if any, of damage to the hair. (For more complete information on hair analysis, refer to the chapter on permanent waving.)

CLIENT'S HAIR HISTORY

To help ensure consistent, satisfactory results, records should be kept of each chemical hair relaxing treatment. These records should include the client's hair history, products and conditioners used (see sample form below), and the client's release statement. The release statement is used to protect the cosmetologist, to some extent, from the responsibility for accidents or damages. You should be sure to find out if the client has ever had a hair relaxing. If so, was there any reaction? You must not chemically relax hair that has been treated with a metallic dye. To do so damages or destroys the hair. In addition, it is not advisable to use chemical relaxers on hair that has been bleached lighter.

Before starting to process the hair, you must know how the client will react to the relaxer. Therefore, the client must receive: (1) a thorough scalp and hair examination and (2) a hair strand test.

RELAXER RECORD

Name ..... Tel .....

Address..... City ..... State..... Zip .....

DESCRIPTION OF HAIR

Form	Length	Texture		Porosity	
□ wavy	□ short	□ coarse	□ soft	□ very porous	□ less porous
□ curly	□ medium	□ medium	□ silky	□ moderately porous	□ least porous
□ extra-curly	□ long	□ fine	□ wiry	□ normal	□ resistant

Condition

□ virgin □ retouched □ dry □ oily □ lightened

Tinted with .....

Previously relaxed with (name of relaxer) .....

□ Original sample of hair enclosed □ not enclosed

TYPE OF RELAXER OR STRAIGHTENER

□ whole head □ retouch

□ relaxer ..... strength □ straightener ..... strength

Results

□ good □ poor □ sample of relaxed hair enclosed □ not enclosed

Date	Operator	Date	Operator
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

FIGURE 13.1 — Examining the scalp.

SCALP EXAMINATION

Inspect the scalp carefully for eruptions, scratches, or abrasions. To obtain a clearer view of the scalp, part the hair into ½" (1.25cm) sections. Hair parting may be done with the index and middle fingers or with the handle of a rat-tail comb. In either case, you must exercise great care not to scratch the scalp. Such scratches may become seriously infected when aggravated by the chemicals in the relaxer. (Fig. 13.1)

If the client has scalp eruptions or abrasions, or facial blemishes that extend into the scalp, do not apply the chemical hair relaxer until the scalp is healthy. If the hair is not in a healthy condition, prescribe a series of conditioning treatments to return it to a more normal condition. Then you may give a strand test.

FIGURE 13.2 — Relaxer strand test.

STRAND TESTS

To help you estimate the results you may expect to get from a chemical relaxing, it is advisable to test the hair for porosity and elasticity. This can be done using one of the following strand tests:

Finger test. This test determines the degree of porosity in the hair. Grasp a strand of hair and run it between the thumb and index finger of the right hand, from the end toward the scalp. If it ruffles or feels bumpy, the hair is porous and can absorb moisture.

Pull test. This test determines the degree of elasticity in the hair. Normally, dry, curly hair will stretch about one-fifth its normal length without breaking. Grasp half a dozen strands from the crown area and pull them gently. If the hair appears to stretch, it has elasticity and can withstand the relaxer. If not, conditioning treatments are recommended prior to a chemical relaxing treatment.

Relaxer test. Application of the relaxer to a hair strand will indicate the reaction of the relaxer on the hair. Take a small section of hair from the crown or another area where the hair is wiry and resistant. Pull it through a slit in a piece of aluminum foil placed as close to the scalp as possible. Apply relaxer to the strand in the same manner as you would apply it to the entire head. Process the strand until it is sufficiently relaxed, checking the strand every 3 to 5 minutes. Make careful note of the timing, the smoothing required, and the hair strength. Shampoo the relaxer from the strand only, towel dry, and cover with protective cream to avoid damage during the relaxing service. If breakage has occurred, you should do another strand test using a milder solution. (Fig. 13.2) ✔

Completed:
Learning Objective
#5
CLIENT ANALYZATION FOR CHEMICAL HAIR RELAXING

CHEMICAL HAIR RELAXING PROCESS (WITH SODIUM HYDROXIDE)

The procedure outlined below is based primarily on products containing sodium hydroxide. For this, or any other kind of product, follow the manufacturer's directions and be guided by your instructor.

EQUIPMENT, IMPLEMENTS, AND MATERIALS

Chemical relaxer
Neutralizer or neutralizing shampoo
Shampoo and cream rinse
Shampoo cape
Protective base
Conditioner-filler
Protective gloves
Towels
Rollers
Comb and brush
Spatula
Timer
Conditioner
Absorbent cotton
Neck strip
Clips and picks
End papers
Setting lotion
Record card

PREPARATION

1. Select and arrange the required equipment, implements, and materials.
2. Wash and sanitize your hands.
3. Seat client comfortably. Remove earrings and neck jewelry; adjust towel and shampoo cape.
4. Examine and evaluate the scalp and hair.
5. Give a strand test and check results.
6. Do ***not*** shampoo hair. The relaxer will burn and irritate the scalp if the hair is shampooed prior to the procedure. (Hair ends may be trimmed after the application of the chemical relaxer.)
7. Have client sign release card.

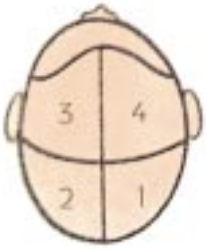

FIGURE 13.3 — Part hair into four sections.

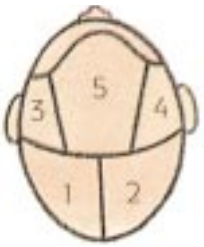

FIGURE 13.4 — Part hair into five sections; three sections in front area, two sections in back area.

PROCEDURE

1. Part hair into four or five sections, as recommended by your instructor. (Figs. 13.3, 13.4)

2. Dry hair. If moisture or perspiration is present on the scalp because of excessive heat or humidity, place the client under a cool dryer for several minutes.

3. If you're using a "no base" relaxer, it is recommended that a protective cream be applied on the hairline and around the ears.

FIGURE 13.5 — Applying protective base.

If you're using a base formula, apply protective base to protect the scalp from the strong chemicals in the relaxer. To apply it properly, subdivide each of the four or five major sections into ½" to 1" (1.25 to 2.5 cm) partings, to permit thorough scalp coverage. (Fig. 13.5) Apply the base freely to the entire scalp with the fingers. The hairline around the forehead, nape of the neck, and area over and around the ears must be completely covered. Complete coverage is important to protect the scalp and hairline from irritation.

APPLYING THE CONDITIONER-FILLER

In many cases a conditioner-filler is required before the chemical relaxer can be used. The conditioner-filler, usually a protein product, is applied to the entire head of hair when dry. It protects over-porous or slightly damaged hair from being over-processed on any part of the hair shaft. It evens out porosity of the hair shaft, and permits uniform distribution and action of the chemical relaxer.

To give complete benefits from the conditioner-filler, rub it gently onto the hair from the scalp to the hair ends, using either the hands or a comb. Then towel dry the hair or use a cool dryer to completely dry the hair.

CAUTION

Avoid the use of heat, which will open the pores of the scalp and cause irritation or injury to the client's scalp.

Protective gloves must be worn by the cosmetologist to prevent damage to hands.

APPLYING THE RELAXER

Divide the head into four or five sections, in the same manner as for the application of the protective base.

The processing cream is applied last to the scalp area and hair ends. The body heat will speed up the processing action at the scalp. The hair is more porous at the ends and may be damaged. In both these areas, less processing time is required, and, therefore, the relaxer is applied last.

There are three methods in general use for the application of the chemical hair relaxer: the comb method, the brush method, and the finger method.

COMB METHOD

Remove a quantity of relaxing cream from the jar. Beginning in the back right section of the head, carefully part off ¼" to ½" (.66

to 1.25 cm) of hair, depending on its thickness and curliness. Apply the relaxer with the back of the comb, starting ½" to 1" (1.25 to 2.5 cm) from the scalp, and spread to within ½" (1.25 cm) of the hair ends. First apply the relaxer to the top side of the strand. (Fig. 13.6) Then, raise the subsection and apply the relaxer underneath. (Fig. 13.7) Gently lay the completed strand up, out of the way.

Complete the right back area and, moving in a clockwise direction, cover each section of the head in the same manner. Then, go back over the head in the same order, applying additional relaxing cream, if necessary, and spreading the relaxer close to the scalp and up to the hair ends. Avoid excessive pressure or stretching of the hair.

Smoothing the cream through the hair not only spreads the cream, but also gently stretches the hair into a straight position.

An alternate technique is to begin application at the nape, approximately 1" (2.5 cm) from the hairline, and continue toward the crown. The last place to apply relaxer is at the hairline. Be guided by your instructor's and the manufacturer's instructions.

FIGURE 13.6 — Applying relaxer on top of strand.

FIGURE 13.7 — Applying relaxer underneath strand.

BRUSH OR FINGER METHOD

The brush or finger method of applying the relaxer to the hair is the same as the comb method, except that a color applicator brush or the fingers and palms are used instead of the back of the comb. ***Wear protective gloves.***

PERIODIC STRAND TESTING

While spreading the relaxer, inspect its action by stretching the strands to see how fast the natural curls are being removed. Another method of testing is to press the strand to the scalp using the back of the comb or your finger. Examine the strand after your finger is removed. If it lies smoothly, the strand is sufficiently relaxed; if the strand reverts or "beads" back away from the scalp, continue processing.

RINSING OUT THE RELAXER

When the hair has been sufficiently straightened, rinse the relaxer out rapidly and thoroughly. (Fig. 13.8) The water should be warm, not hot. If the water is too hot, it may burn the client and cause discomfort because of the very sensitive condition of the scalp. The direct force of the rinse water should be used to remove the relaxer and avoid tangling the hair. Part hair with fingers to make sure no traces of the relaxer remain. Unless the relaxer is completely removed, its chemical action continues on the hair. The stream of water should be directed from the scalp to the hair ends.

FIGURE 13.8 — Rinsing out relaxer.

CAUTION

Do not get relaxer or rinse water into the eyes or on unprotected skin. If the relaxer or rinse water gets into the client's eyes, wash it out immediately, and refer the client to a doctor without delay.

SHAMPOOING/NEUTRALIZING

When the hair is thoroughly rinsed, neutralize the hair as directed by your instructor. Most manufacturers provide a neutralizing shampoo that is applied to the hair after rinsing.

Completely saturate the hair with the neutralizing shampoo. Beginning at the nape, carefully comb with a wide-tooth comb, working upward, toward the forehead. Use the comb to:

1. Keep the hair straight.
2. Ensure complete saturation with the neutralizing shampoo.
3. Remove any tangles without pulling.

Time the neutralizer as directed and rinse thoroughly. Shampoo again to bring pH down to a safe level. Towel blot gently. Condition hair and proceed with styling. Discard used supplies. Cleanse and sanitize equipment. Wash and sanitize hands. Complete record of all timings and treatments during the service, and file the record card.

Note: *Different products used for relaxing require different methods. Always follow the manufacturer's directions.*

APPLYING THE CONDITIONER

Many manufacturers recommend that you apply a conditioner before setting the hair, to offset the harshness of the sodium hydroxide in the relaxer and to help restore some of the natural oils to the scalp and hair.

Two types of conditioners available are:

1. ***Cream-type conditioners*** are applied to the scalp and hair, then carefully rinsed out. The hair is then towel dried. Apply setting lotion; set the hair on rollers; dry and style the hair in the usual manner.
2. ***Protein-type (liquid) conditioners*** are applied to the scalp and hair prior to hairsetting and allowed to remain in the hair to serve as a setting lotion. Set the hair on rollers, dry, and style in the usual manner.

Note: *Because of the fragile condition of the hair, it is advisable to wind the hair on the roller without extreme tension.*

HOT THERMAL IRONS

Relaxed hair is in a weakened condition. To avoid hair breakage, excessive heat and excessive stretching should be avoided. Thermal curling with warm heat can be used to curl chemically relaxed hair. Conditioning treatments should be recommended and the hair dried completely before thermal curling. (See chapter on thermal hairstyling for a discussion of thermal irons.)

Question & Answer

Q

A

RELAXING TWO DEGREES OF CURL

Is it advisable to relax only half the head if excessive curl is in the front only?

It is not unusual for a person to have mixed hair textures. If you closely examine most Caucasian heads you'll find areas that are fine and straight while others are wavy to curly. It is no different with the hair of African-American clients. The reason for this is not thoroughly understood except to say each hair follicle controls the size, shape, and growth pattern of the hair growing from that particular root. Just as hair on different parts of the body differs in strength and structure, so can the hair on various portions of one's head.

It is not advisable to chemically re-structure only a portion of the hair on one head. Hair that has been chemically treated does not react the same as virgin hair and will make styling noticeably difficult.

Use a relaxer formulated with an ammonium thioglycolate base—widely called a curl re-arranger. The thio-based relaxer has a lower pH factor than sodium hydroxide relaxers; therefore they are not formulated to be used on kinky or wool-like hair. They are great for use on virgin hair with moderate curls or hair that must be relaxed for style control.

Inasmuch as the relaxer is thio-based, it is compatible with liquid thio-perm solution. The best solution for chemically treating hair that is only partially curly is to first apply a thio relaxer to the curly portion, then process and rinse. Then perm the entire head using large perm rods to relax and widen the original wave pattern for easier styling. All the hair, having been chemically treated, will react the same when dry.

—*From* Milady's Salon Solutions *by Louise Cotter*

Completed: Learning Objective #6

PROCEDURE FOR SODIUM HYDROXIDE HAIR RELAXING PROCESS

SODIUM HYDROXIDE RETOUCH

Hair grows about ¼" to ½" (.66 to 1.25 cm) per month. A retouch should probably be done every 6 weeks to 2 months, depending on how quickly the client's hair grows.

Follow all the steps for a regular chemical hair relaxing treatment, with one exception: ***apply the relaxer only to the new growth.*** In order to avoid breakage of previously treated hair, apply a cream conditioner over the hair that received the earlier treatment, thus avoiding overlapping and damage. ✔

CHEMICAL HAIR RELAXING PROCESS (WITH AMMONIUM THIOGLYCOLATE)

FIGURE 13.9 — Relaxed hair.

Ammonium thioglycolate (also called thio relaxer) is the same type of product used in cold waving, with a heavy cream or gel added to the formula in order to keep the hair in a straightened position. (Fig. 13.9)

As in cold waving, the relaxer breaks the sulfur and hydrogen bonds, softening and swelling the hair. The mechanical action of the hands, brush, or fingers smooths the hair and holds it in a straightened position.

Once the hair is straightened, the neutralizer is applied (serving the same purpose as the neutralizer in cold waving). It reforms the sulfur and hydrogen bonds and rehardens the hair in its newly straightened position.

Manufacturers vary their products according to the texture and condition of the hair. Tinted and lightened hair require a weaker formula than virgin hair.

Thio relaxers have a milder relaxing action on curly hair. You may choose to use them on fine-textured hair, or when it is desirable to remove less curl from the hair. Thio relaxers can also be used to reduce excessive curl formed in a permanent wave. Consult your instructor for directions and precautions for this specialized service.

Techniques for thio relaxers vary. The general procedure involves preparing the hair (gently shampooing if required), applying a base if necessary, applying the relaxer in the manner outlined under "Chemical Hair Relaxing Process (with Sodium Hydroxide)," and periodic strand testing. Directions at this point may vary greatly, so follow the manufacturer's directions *carefully.* Remove the relaxer from the hair and neutralize as directed, condition, and proceed with styling of the hair. As with any chemical service, exercise caution so that the hair is not excessively heated or stretched during styling as this may cause damage to both the hair and the desired curl formation.

THIO RETOUCH

As noted earlier, hair grows at the rate of ¼" to ½" (.66 to 1.25 cm) per month. A thio retouch should be given when there is a noticeable regrowth. Follow all steps for a regular thio hair relaxing treatment, with the exception of the relaxer, which is applied only to the new growth. A conditioner should be applied to the previously relaxed hair to protect it from damage.

OTHER RELAXERS

Researchers have also developed acid-based relaxers for the treatment of overly curly hair. Like acid permanent waves, the relaxer works with bisulfites rather than with thioglycolate acid. This type of relaxer is designed as a milder-acting one, much like the thio. Some can also be used as a pre-wrap preparation for performing a permanent wave on excessively curly hair. ✔

Completed: Learning Objective #7

PROCEDURE FOR AMMONIUM THIOGLYCOLATE HAIR RELAXING PROCESS

CHEMICAL BLOW-OUT

To meet the needs of salon clients, great versatility in hairstyling may be achieved with the chemical blow-out. This technique removes only a small amount of the curl, leaving the hair in a more manageable condition. A chemical blow-out is a combination of chemical hair straightening and hairstyling, which creates a well-groomed style in the African-American tradition.

The chemical blow-out may be done with either the thio hair relaxer or the sodium hydroxide relaxer. The important consideration with either method is not to over-relax the hair to the point where the blow-out process becomes impossible to perform. Usually, when the thio relaxer is used, the hair is shampooed first. When the sodium hydroxide relaxer is used, the hair is shampooed after the hair is relaxed. (Follow the manufacturer's or your instructor's directions.)

EQUIPMENT, IMPLEMENTS, AND MATERIALS

Use the same equipment, implements, and materials as for a regular chemical relaxing, plus a wide-tooth comb (hair lifter or pick), scissors, clippers, and hand blower.

PROCEDURE

1. Prepare and drape client as for a regular hair relaxing treatment.
2. Apply scalp conditioner and/or base to the scalp.
3. Wear protective gloves; apply relaxer in the usual manner.

4. Stop the relaxing procedure by rinsing the relaxer from the hair with warm water before it is straightened and while it still shows a wave or curl formation.
5. Apply neutralizer or neutralizing shampoo.
6. Rinse out neutralizer and towel blot the hair.
7. Apply a conditioner to scalp and hair to help restore the natural oils removed by the relaxer.

Completed: Learning Objective #8

CHEMICAL BLOW-OUT PROCEDURE

If the blow-out style is desired, dry the hair with a hand dryer while lifting the hair with a hair lifter or pick. Dry from the scalp out to the ends. Distribute the dry hair evenly around the head and shape with clippers or shears. Continue to lift the hair out from the head to check progress of cut.

The hair can also be shaped while wet, then combed into place to let it dry naturally. For a softer look, the hair can be picked or combed when dry. ✔

REVIEW OF SAFETY PRECAUTIONS

When giving a chemical relaxing treatment, you can never be too cautious. Here is a review of the safety measures that will ensure a comfortable and safe treatment for your client.

1. Examine the scalp for abrasions; if any are present, do not give a hair relaxing treatment.
2. Analyze the hair; give a strand test.
3. Do not relax damaged hair. Suggest a series of conditioning treatments. In extreme cases it may be advisable to cut off the damaged hair.
4. Do not shampoo the hair prior to the application of a sodium hydroxide product.
5. Do not apply a sodium hydroxide relaxer over a thio relaxer.
6. Do not apply a thio relaxer over a sodium hydroxide relaxer.
7. Never use a strong relaxer on fine hair, as it may cause breakage.
8. Cool or warm irons may be used on chemically relaxed hair. Do not use excessive heat, as it may cause damage to relaxed hair.
9. Apply a protective base, to avoid burning or irritating the scalp with the sodium hydroxide relaxer.
10. Wear protective gloves.
11. Protect client's eyes.

12. Use extreme care when applying the relaxer to avoid accidentally spreading it on the ears, scalp, or skin.
13. Strand test the action of the relaxer frequently to determine how fast the natural curl is being removed.
14. Be sure to thoroughly rinse the relaxer from the hair. Failure to do so permits the relaxer to continue to process, resulting in hair damage. Direct stream of warm water from scalp to hair ends.
15. Wear protective gloves until all the relaxer has been removed. When rinsing the shampoo from the hair, always work from the scalp to the ends, to prevent tangling the hair.
16. Use a wide-tooth comb and avoid pulling when combing the hair after the relaxation process is complete. Avoid scratching the scalp with comb or fingernails.
17. Apply a conditioner to the scalp and hair before setting the hair.
18. When retouching the new growth, do not allow the relaxer to overlap onto the hair already straightened.
19. Do not give a hair relaxing treatment to hair treated with a metallic dye.
20. At the completion of each treatment, fill out a complete record card.
21. Have the client sign a release statement to protect the salon and the cosmetologist.
22. It is not advisable to use chemical relaxers on lightened hair, which is already in a weakened condition.
23. Hair should not be relaxed or straightened more than 80%. To go beyond that point may severely damage the hair.

SOFT CURL PERMANENT

Soft curl permanent waving is a method of permanently waving overly curly hair. It is known by various names given by the manufacturers of the products.

CAUTION

The product used contains ammonium thioglycolate (thio).

1. *Do not use on hair that has been treated with sodium hydroxide products.*
2. *Do not use on hair that has been treated with metallic dye or compound henna.*

IMPLEMENTS AND MATERIALS

Shampoo cape
Neck strips and towels
Mild shampoo
Combs
Gloves
Protective cream
Thio gel, cream, or lotion
Applicators
Curling rods
Porous end papers
Pre-wrap solution
Waving lotion
Cotton or neutralizing bands
Plastic cap
Neutralizer
Styling lotion (curl activator)
Finishing rinse
Hair clips
Scissors or razor
Record cards

FIGURE 13.10 — Remove tangles from hair.

FIGURE 13.11 — Part hair into sections and coat with thio gel.

FIGURE 13.12 — Comb thio gel through hair.

PROCEDURE

This procedure can be used for both men and women.

1. Examine the client's scalp. Do not use permanent waving gel or cream if the scalp shows signs of abrasions or lesions, or if the client has experienced an allergic reaction to a previous perm.
2. Shampoo and rinse hair thoroughly. Towel dry, leaving hair damp.
3. Remove tangles with a large-tooth comb. (Fig. 13.10)
4. Part hair into four to five sections, as recommended by your instructor. *(If the manufacturer requires it, put a protective cream on the entire scalp, including around the hairline.)*
5. Wear protective gloves.
6. Apply thio gel or cream to one section at a time, using the back of a comb, a haircoloring brush, or fingers. Use a tail comb to part hair and begin the application of thio gel or cream to the hair nearest the scalp, preferably starting at the nape area. Work the thio gel or cream to the ends of the hair. (Fig. 13.11)
7. Comb the thio gel or cream through the entire head, first with a wide-tooth comb, then with a smaller-tooth comb. (Fig. 13.12)
8. When the hair becomes supple and flexible, rinse with tepid water and towel dry. Do not tangle the hair.

Note: *Always follow the manufacturer's instructions on the recommended procedure for rinsing off the chemical.*

9. Divide the hair into eight sections. (Fig. 13.13) Subsection as you wrap the hair. (Fig. 13.14)

10. Wrap hair as desired on curling rods. In order to rearrange the curl pattern of the hair, the rod selected must be at least two times larger than the natural curl. In order to achieve a good curl formation, the hair should encircle the rod at least 2½ times.
11. After the wrap has been completed, protect the client's skin by placing cotton around the hairline and neck. (Fig. 13.15)

FIGURE 13.13 — Divide the hair into eight sections.

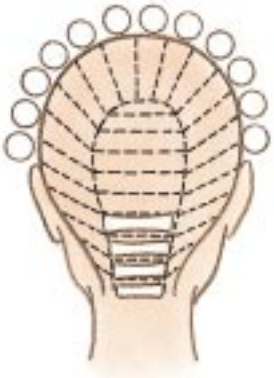

FIGURE 13.14 — Subsection as you wrap.

FIGURE 13.15 — Protect client's skin with cotton around hairline.

12. Apply thio gel, cream, or lotion to all the curls until they are thoroughly saturated. (Fig. 13.16) Replace saturated cotton.
13. Cover the client's head with a plastic cap.
14. Have the client sit under a pre-heated dryer for 15 to 25 minutes, or as recommended by the manufacturer. Wrapping the head with hot towels is another option. (Fig. 13.17)

FIGURE 13.16 — Apply thio gel to curls.

FIGURE 13.17 — Process under pre-heated dryer.

15. Take a test curl (Fig. 13.18), and if the desired curl pattern has not developed, have the client sit under the dryer for another 10 minutes or until a curl pattern develops.
16. When the desired curl pattern has been reached, rinse the hair thoroughly with warm (not hot) water. (Fig. 13.19) Blot each curl with a towel.
17. Use a prepared neutralizer, or mix neutralizer as directed by the manufacturer, and saturate each curl twice. (Fig. 13.20) Allow neutralizer to remain on the curls for 5 to 10 minutes, or as directed by the manufacturer.

FIGURE 13.18 — Test a curl.

FIGURE 13.19 — Rinse the hair.

FIGURE 13.20 — Apply neutralizer.

18. Carefully remove rods and apply balance of neutralizer to the hair. Work neutralizer through with fingers for thorough distribution (Fig. 13.21), and allow it to remain on the hair for another 5 minutes.
19. Rinse hair thoroughly with warm water, then cool water, and towel blot.
20. Trim uneven hair ends. (Fig. 13.22)

FIGURE 13.21 — Work neutralizer through hair.

FIGURE 13.22 — Trim hair ends.

21. Apply conditioner as directed by the manufacturer.
22. Air dry hair or style as directed. (Fig. 13.23) ✔

Completed: Learning Objective #9

SOFT CURL PERMANENT PROCEDURE

Figure 13.24 illustrates hairstyle *after* a soft curl permanent was given.

FIGURE 13.23 — Style hair.

FIGURE 13.24 — Finished hairstyle.

AFTERCARE

1. Do not comb or brush the curls when wet; use a lifting pick instead.
2. Do not shampoo for at least five days. As with any chemical procedure, the hair takes time to return to a lower pH, and a shampoo with a higher pH may weaken the curl. Thereafter shampoo with a mild (acid-balanced) shampoo.
3. Conditioner or curl activator should be used daily to maintain flexibility, sheen, and proper moisture balance of the hair.

REVIEW OF SAFETY PRECAUTIONS

1. Do not give a soft curl permanent to hair treated with sodium hydroxide.
2. Do not give a soft curl permanent to hair that has been colored with a metallic dye or compound henna.
3. Thoroughly analyze the hair and scalp and record the information prior to giving a soft curl permanent.
4. Bleached, tinted, or damaged hair must be reconditioned until the hair is of sufficient strength to ensure that the soft curl service will not cause further damage.

5. If permanent waving lotion or neutralizer accidentally gets into the client's eye, flush the eye immediately with water and refer the client to a doctor.
6. Test curl frequently—but not the same curl—to ensure proper curl formation without damage.
7. Use protective cream around client's hairline and neck.
8. Complete client's record card carefully and accurately.

REVIEW QUESTIONS

CHEMICAL HAIR RELAXING AND SOFT CURL PERMANENT

1. What are the basic products used for chemical hair relaxing?

2. What are the two types of chemical hair relaxers?

3. What are the three steps of chemical hair relaxing?

4. What is the most important point to remember when performing a chemical service?

5. What type of hair relaxing technique achieves the greatest versatility in hairstyling?

6. List the three most important safety precautions for chemical hair relaxing.

7. What is the method of permanently waving overly curly hair?

8. If hair were treated with sodium hydroxide, what service could not be done?

9. If hair is damaged by an appliance or a chemical, what must you do before applying a chemical hair relaxer?