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## 24 HR. COSMETOLOGY PERFECTION

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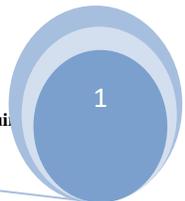
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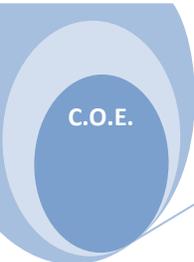
# Anatomy and Physiology

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### Segment Outline:

1. The Importance of Anatomy and Physiology for Estheticians
2. Categories of the Study of the Human Body
  - a. The Cell
  - b. Tissues
  - c. Organs
3. Body Systems
  - a. Basic Body Systems
  - b. Back, Chest and Shoulder Bones
  - c. Arm, Wrist, and Hand Bones
4. The Muscular System
  - a. Three Parts Of A Muscle
  - b. Muscular Tissue Stimulation Tissues
5. Scalp and Face Muscles
  - a. Scalp Muscles
  - b. Ear Muscles
  - c. Eye and Nose Muscles
  - d. Mouth Muscles
6. Mastication, Neck And Upper Back Muscles





- a. Mastication Muscles
- b. Neck and Upper Back Muscles
7. Shoulder, Chest And Arm Muscles
  - a. Muscular System- Anterior
  - b. Muscular System- Posterior
8. Hand Muscles
9. Muscles of the Feet
10. The Circulatory System
11. The Cardiovascular System
  - a. Blood Flow Through the Heart
  - b. Arteries And Veins Of The Face, Head And Neck
12. The Nervous System
  - a. The Central Nervous System
  - b. The Peripheral Nervous System
  - c. The Autonomic Nervous System
13. Nerves and Massage
  - a. Face, Head And Neck Nerves
  - b. The Trifacial Nerve

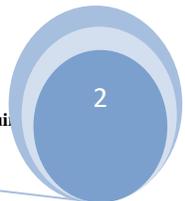
**Segment Objectives:**

Upon the completion of this segment of the course, you will be able to:

- Identify the structure and function of major body systems.
- Explain the relationship and function of cells, tissues and primary organs within the human body.

# Anatomy and Physiology

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## The Importance of Anatomy and Physiology for Estheticians

Few professionals know and understand the human body better than licensed estheticians. Estheticians are licensed to touch people. Whether you give a facial massage, provide a skin care treatment or apply makeup, you have the privilege of bringing relaxation, well-being and personal enhancement to others.

Of particular importance to the skin care specialist are the muscles, nerves, circulatory system and the bones of the head, face, neck, arms and hands. Understanding muscles, the circulatory system and nerves will help you develop beneficial facial massage techniques. This segment of the course focuses on the major groups of muscles, nerves and bones. You will also review other structures of the human body to gain a broader understanding of the importance of touch.

## Categories of the Study of the Human Body

The study of the human body can be divided into two general categories:

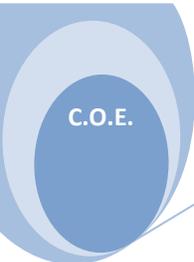
- Anatomy, the study of the organs and systems of the body.
- Physiology, the study of the functions of these organs and systems.

Other subcategories go into greater detail.

For example, the study of structures that can be seen with the naked eye is called “**gross anatomy**.” The study of structures too small to be seen except through a microscope is called “histology.”

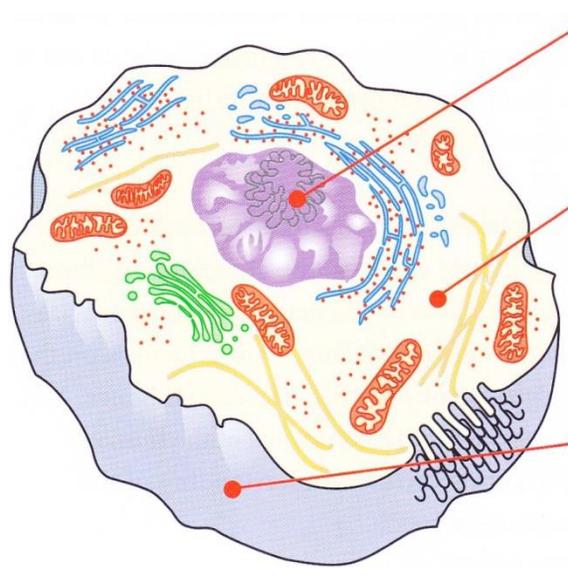
To understand anatomy and physiology you must first be aware of the building blocks of the human body, which are:

- Cells
- Tissues



- Organs
- Body Systems

### Structure of a Cell



**NUCLEUS**  
*(The control center of the cell)* The nucleus controls cell reproduction, growth and metabolism.

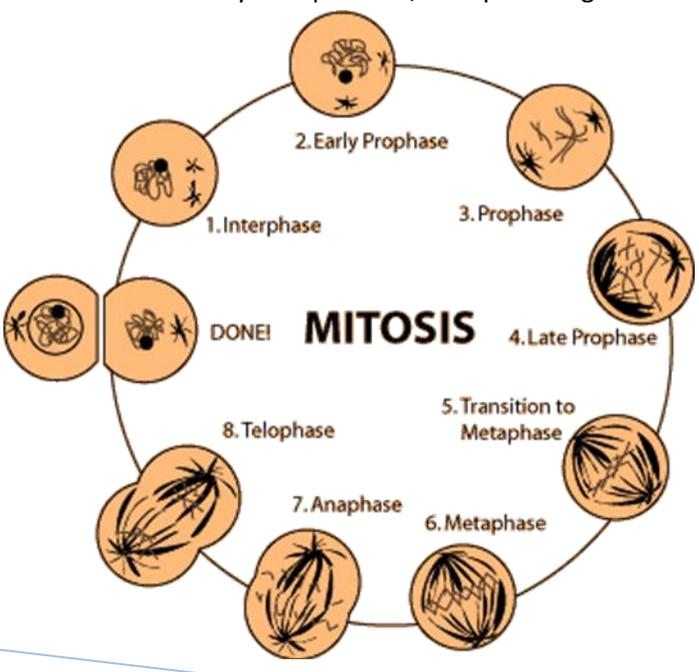
**CYTOPLASM**  
*(The production department)* The cytoplasm is the site of most of the chemical activities within the cell. Organelles within the cytoplasm store nutrients, and repair and restore the cell.

**CELL MEMBRANE**  
*(The outer surface and enclosing structure of the cell)*

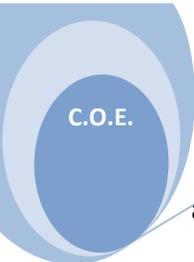
The word *cell* comes from the Latin word *cella*, which means chamber.

### Cell Reproduction and Division

Cells have the ability to reproduce, thus providing new cells for the growth and replacement of worn or injured ones.



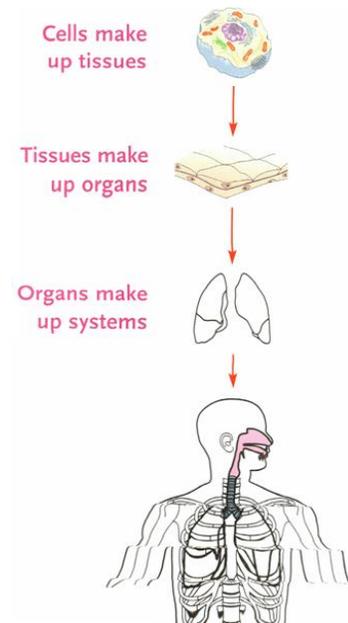
**Mitosis** (my-TOH-sis) is the usual process of the cell's reproduction of human tissues that occurs when the cell divides into two identical cells called daughter cells. Two small structures near the nucleus called **centrioles** (SEN-tree-olz) move to each side during the mitosis process to help divide the cell. As long as conditions are favorable, the cell will grow and reproduce. Favorable conditions include an adequate supply of food, oxygen, and water; suitable temperatures; and the ability to eliminate waste products. If conditions become unfavorable, the cell will become impaired or may die. Unfavorable conditions include toxins (poisons), disease,



and injury.

All muscles, nerves, bones and body systems are made up of cells. **Cells** are the basic units of life. They are composed of **protoplasm**, a colorless gel-like substance that contains water, salt and nutrients obtained from food. Cells vary in size, shape, structure and function, but they have certain characteristics in common. A cell contains three basic parts:

1. The **nucleus** is control center of cell activities, is vitally important for reproduction.
2. The **cytoplasm** is the production department of the cell. Small structures called organelles perform most of the cell's activities. Organelles store food for growth, as well as repair and restore the cell.
3. The **cell membrane** is the outer surface of the cell.



Nucleus is from the Latin word *nut*, the core around which other parts are gathered or grouped.

The nucleus is located in the cytoplasm, and both are surrounded by the cell membrane. Cells with common properties or functions combine to form the various tissues of the body.

In order to grow and remain healthy, cells need adequate supplies of food, oxygen and water. They also need proper temperature and the ability to eliminate waste products. If these criteria are not met, cell growth is impaired. Human cells reproduce by dividing in half, a process referred to as mitosis (my-TOE-sis) or indirect division. The chemical process by which cells receive nutrients for cell growth and reproduction is known as metabolism.

Metabolism turns nutrients into energy for the body to use or store for later use. A body's metabolic rate is dependent upon heredity, health conditions, medications, exercise, diet and eating habits. Human life depends upon the body's ability to obtain nutrients from foods.

In order for nutrients to be used by the body, they must be broken down into smaller components.

Nutrients are stored and used differently by the body depending on their type. For example, carbohydrates are the body's main energy source. However, carbohydrates are converted to glucose in the body and excess carbohydrates can result in excess body fat.

A person's metabolic rate can influence his or her energy level and weight. A healthy diet, regular exercise and careful attention to the overall condition of the body can help keep metabolism in check. People with weight problems frequently have metabolic problems. A person with low metabolism takes longer to process food, making it hard for them to lose weight. A person with high metabolism processes food at a faster rate.

There are two phases of metabolism:

1. **Anabolism:** the process of building up larger molecules from smaller ones. During this phase, the body stores water, food and oxygen.
2. **Catabolism:** the process of breaking down larger molecules or substances into smaller ones. This releases energy within the cell, which is necessary for the performance of specific body functions, including muscular movements and digestion.

## Tissues

Groups of cells of the same kind make up tissues.

There are five primary types of tissue in the human body and each differs in structure and function, depending on the type of cells.

1. **Epithelial** tissue covers and protects body surfaces and internal organs.
2. **Connective tissue** supports, protects and holds the body together.
3. **Nerve tissue** carries messages to and from the brain and coordinates body functions.
4. **Muscular tissue** contracts, when stimulated, to produce motion.
5. **Liquid tissue** carries food, waste products and hormones.

## Organs

The organs are separate body structures that perform specific functions. Composed of two or more different types of tissue, the eight organs of significant importance are:

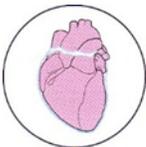
1. The **brain**, which controls all body functions.

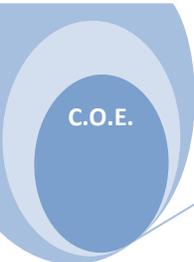


2. The **eyes**, which provide sight.

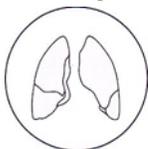


3. The **heart**, which circulates the blood.





- 4. The **lungs**, which supply the blood with oxygen.



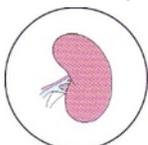
- 5. The **stomach** and **intestines**, which digest food.



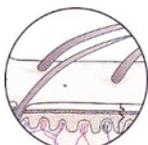
- 6. The **liver**, which removes the toxic by-products of digestion.



- 7. The **kidneys**, which eliminate water and waste products.



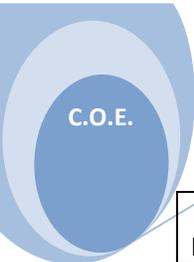
- 8. The **skin**, the body's largest organ, which forms the external protective layer of the body.



## Body Systems

A system is a group of organs that, together, perform one or more vital functions for the body. The body systems you will study in this section are:

<b>Skeletal</b>	Provides the framework of the body
<b>Muscular</b>	Moves the body
<b>Circulatory</b>	Circulates blood through the body
<b>Nervous</b>	Sends and receives messages
<b>Excretory</b>	Eliminates waste from the body
<b>Respiratory</b>	Controls breathing
<b>Endocrine</b>	Controls growth, health and reproduction



<b>Reproductive</b>	Generates new life to perpetuate the species
<b>Integumentary</b>	Covers and protects the entire body

## BASIC BODY SYSTEMS

All body systems are dependent on each other to carry out their functions. In fact, many organs are part of more than one system. The lungs, for example, are part of the respiratory system because they bring in oxygen, but they are also part of the excretory system because they exhale carbon dioxide. An explanation of each system and its interrelated functions follows.

### The Skeletal System

Some clients may have health concerns or injuries that they reveal to you during the client consultation. Knowing the bones, muscles, organs, nerves and other systems of the body can help you understand your clients' needs as they describe their health concerns.

The skeletal system is the physical foundation of the body. It consists of 206 bones of different shapes and sizes, each attached to others at movable or immovable joints.

Osteology is the study of bones. Bones can be long, flat or irregular in shape. Long bones are found in the arms and legs. Flat bones are plate-shaped and include bones located in the skull as well as the scapula, hip bone, sternum, ribs and according to some, the patella. Irregular bones are found in the wrist, ankle and spinal column (the back). Bone is the body's hardest structure, with a composition that is two-thirds mineral matter and one-third organic matter.

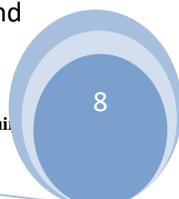
The functions of the skeletal system are to:

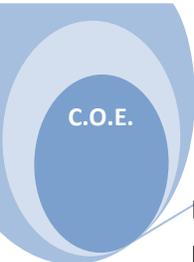
- Support the body by giving it shape and strength
- Surround and protect internal organs
- Provide a frame to which muscles attach
- Allow body movement
- Produce red and white blood cells
- Store calcium

### The Skull

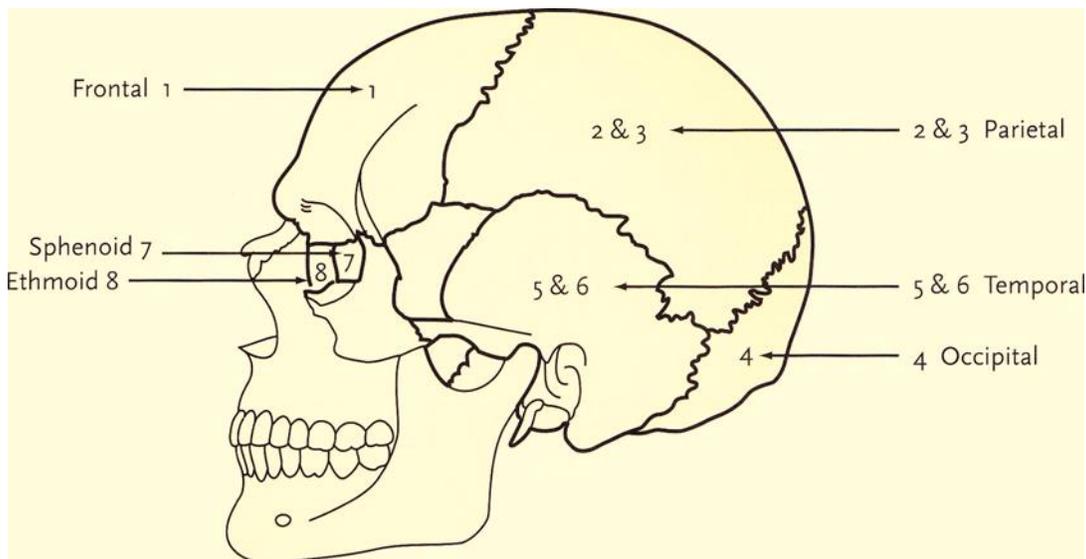
The skull, sometimes referred to as the skeleton of the head or facial skeleton, encloses and protects the brain and primary sensory organs. There are two sets of bones that form the skull: eight bones make up the cranium and 14 bones make up the facial skeleton.

Knowing the names and the positions of the cranial and facial bones helps estheticians better understand what they feel as they touch the face, head and neck while performing treatments on clients. Quite often knowing the location of a bone makes it easier for the esthetician to locate a particular muscle. The illustrations on the following three pages identify the bones of the face, head and neck.





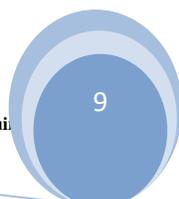
Bones can “feel” pressure and strain. Applying pressure to frontal and temporal bones can relieve sinus pressure and other tensions in the face.

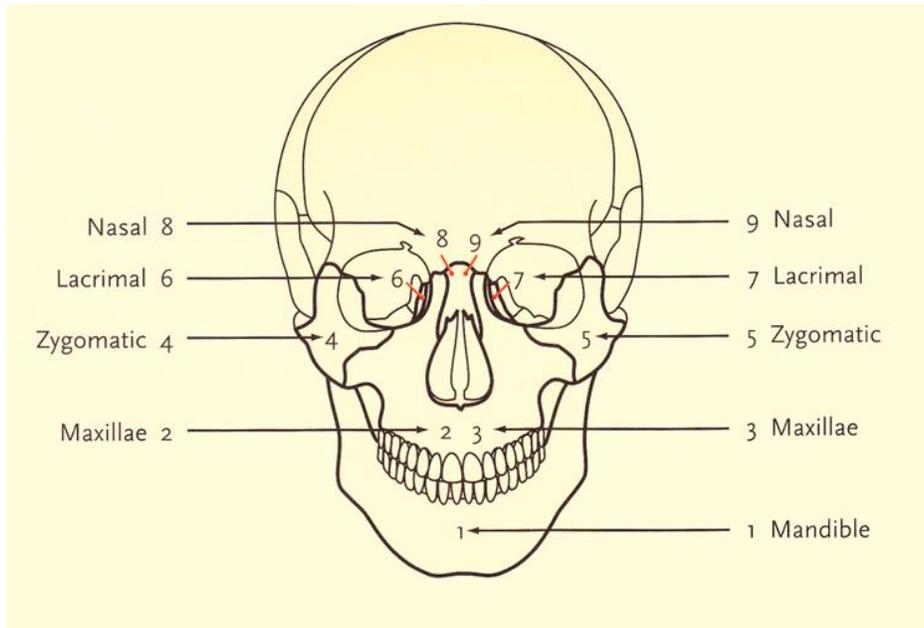
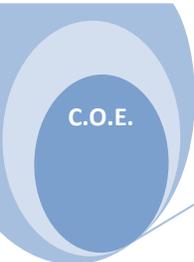


There are eight bones that compose the cranium:

- 1-The **frontal** bone extends from the top of the eyes to the top of the head and forms the forehead.
- 2-3- The **parietal bones** form the crown and upper sides of the head.
- 4- The occipital bone forms the back of the skull, indenting above the nape area.
- 5-6- The **temporal bones** are located on either side of the head, directly above the ears and below the parietal bones.
- 7- The **sphenoid** is located behind the eyes and nose and connects all the bones of the cranium.
- 8- The **ethmoid** is the spongy bone between the eyes that forms part of the nasal cavity.

The bones of the skull create the structure and shape of the head. They also provide a foundation for the epicranium (muscles of the scalp) to attach.





There are 14 bones that compose the facial skeleton. The nine listed below are affected by facial massage.

1-The **mandible** (MAN-di-bl) is the lower jaw and the largest bone of the facial skeleton.

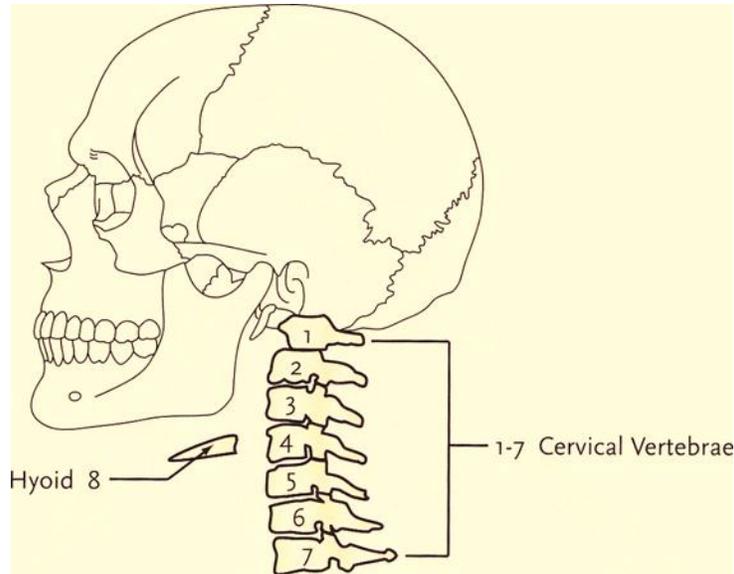
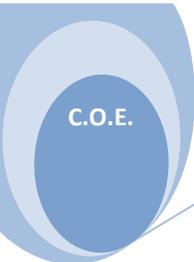
2-3-The **maxillae** (mak-SIL-e) are the two bones of the upper jaw.

4-5- The **zygomatic** (zi-go-MAT-ik) or **malar** (MA-ler) are the two bones that form the upper cheek and the bottom of the eye socket.

6-7- The **lacrimal** (LAK-ri-mal) are the smallest two bones of the facial skeleton and form the front part of the inner, bottom wall of the eye socket.

8-9- The **nasal** (NA-zel) are the two bones that join to form the bridge of the nose.

The shape and size of all bones of the individual’s skull and their relationship to one another will help you determine contouring, highlighting and/or corrective makeup application techniques for your clients.



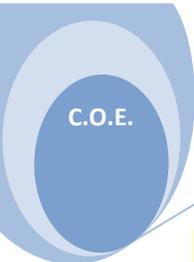
1-7- The **cervical vertebrae** (SUR-vi-kel VURT- e-bray), the seven bones that form the top part of the spinal column, are often lightly massaged during a facial treatment.

8-The **hyoid** (HI-oid) **bone** is the U-shaped bone referred to as the “Adam’s apple” located in the throat. The hyoid is the only bone in the human body not connected to another.

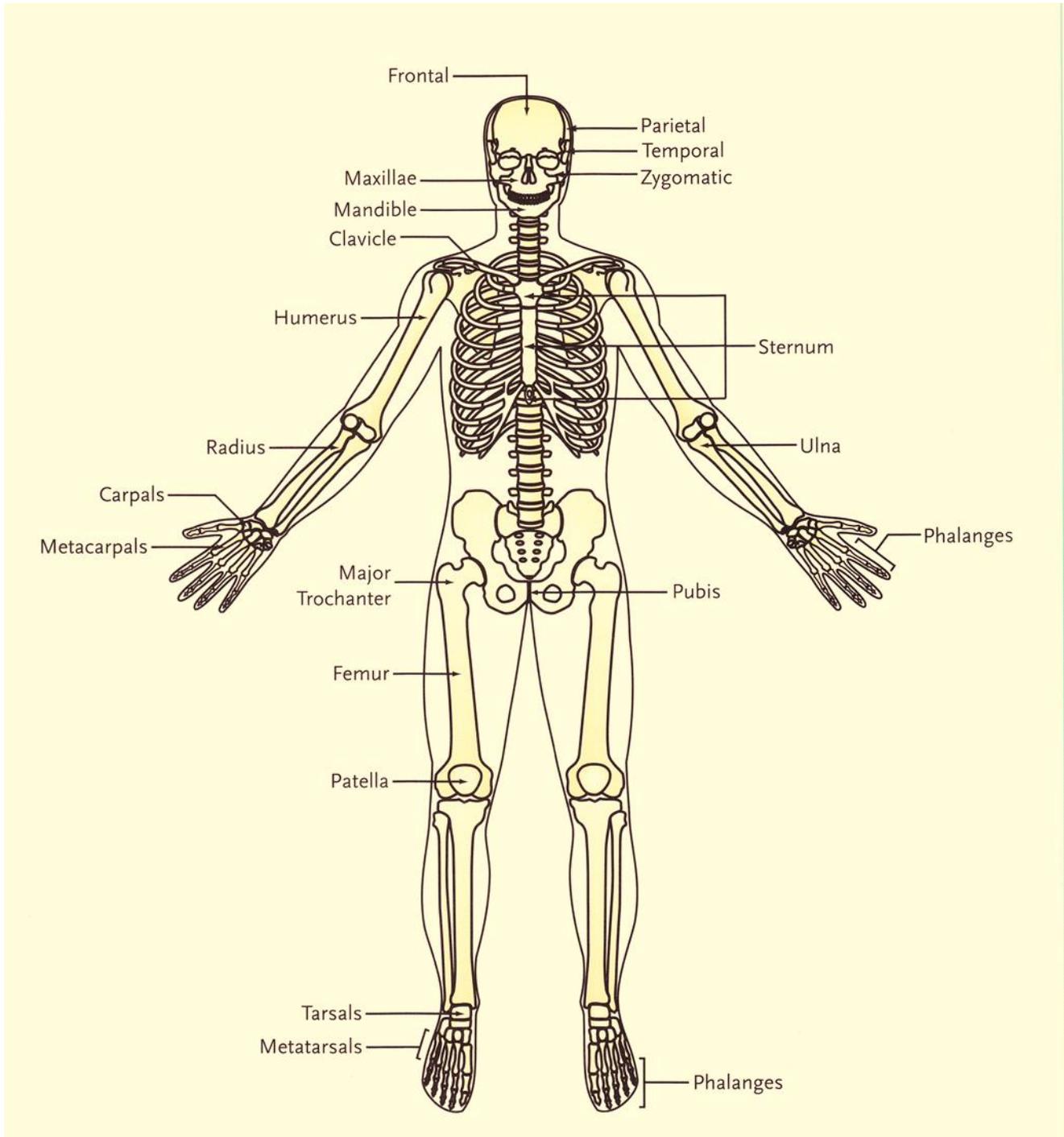
The neck bones compose the top of the spinal column and connect to the base of the skull. They assist the muscles in providing structure and movement to the neck and the head.

Though estheticians generally treat only the head and neck, it is important to be familiar with the bones of the entire body so you can speak professionally about every area. The illustrations on the next two pages identify the major bones of the skeleton.

Depending on your area’s licensing requirements, the type of facility in which you work, and the type of services you offer, you may perform treatments on clients’ backs, shoulders, arms, wrists or hands.

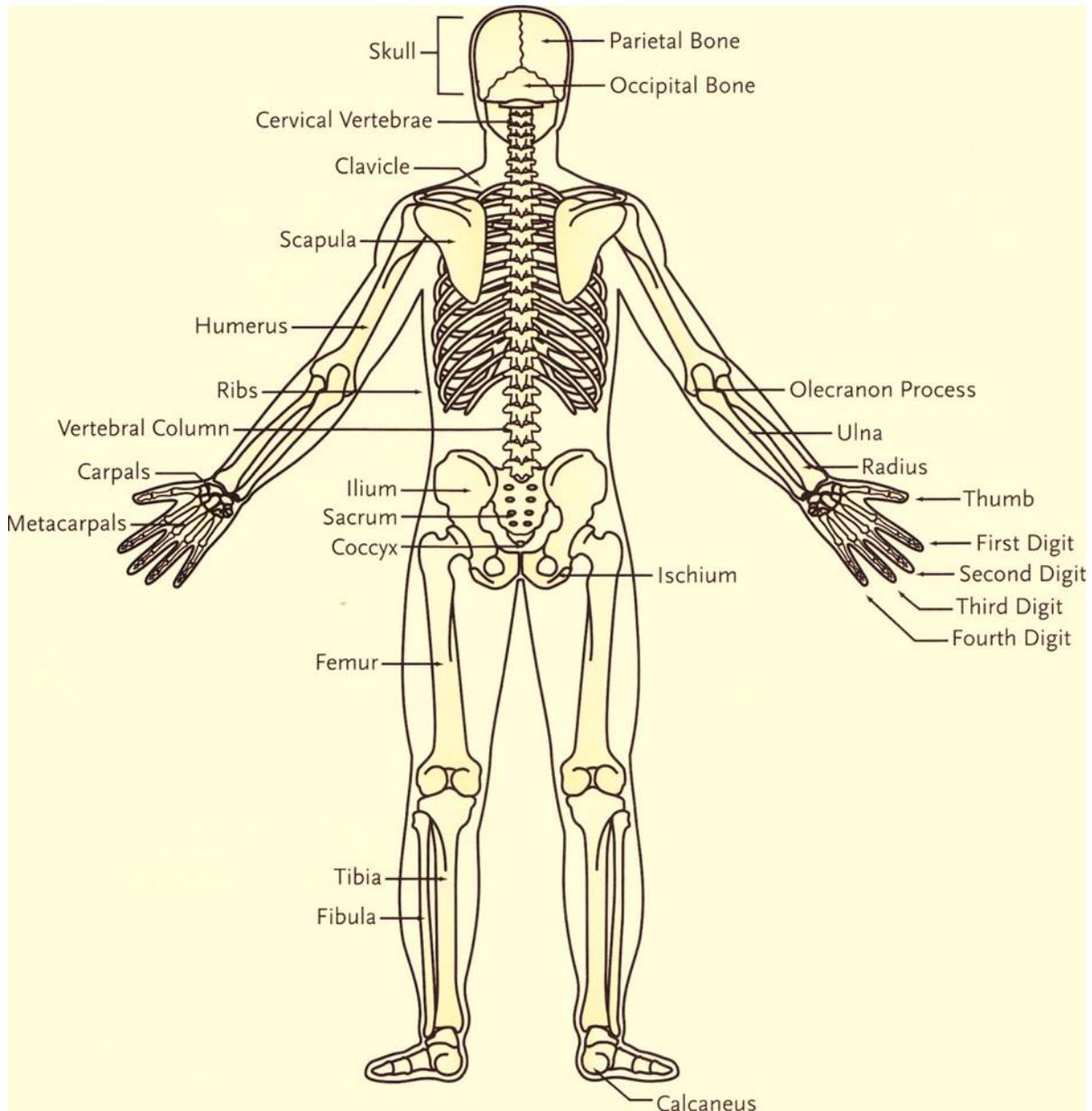


### SKELETAL SYSTEM - ANTERIOR



The major bones of the body are the foundation for the muscular and integumentary systems.

## SKELETAL SYSTEM - POSTERIOR



The posterior skeletal system can also be affected during esthetic procedures such as scalp massage, back treatments and body treatments.

### BACK, CHEST AND SHOULDER BONES

The chest, or thorax, is the bony cage made up of the spine, or thoracic vertebrae, the sternum and 12 ribs. It encloses and protects the heart, lungs and other internal organs. All together there are 33 bones including the cervical vertebrae. The bone that runs across the chest between the shoulders is the clavicle, or collarbone. The upper chest area is the **decollate** (dek-o-LAH-TAY). The two large, flat bones extending from the middle of the back upward to the joint where they attach to the clavicle are called the scapula, or shoulder blades.

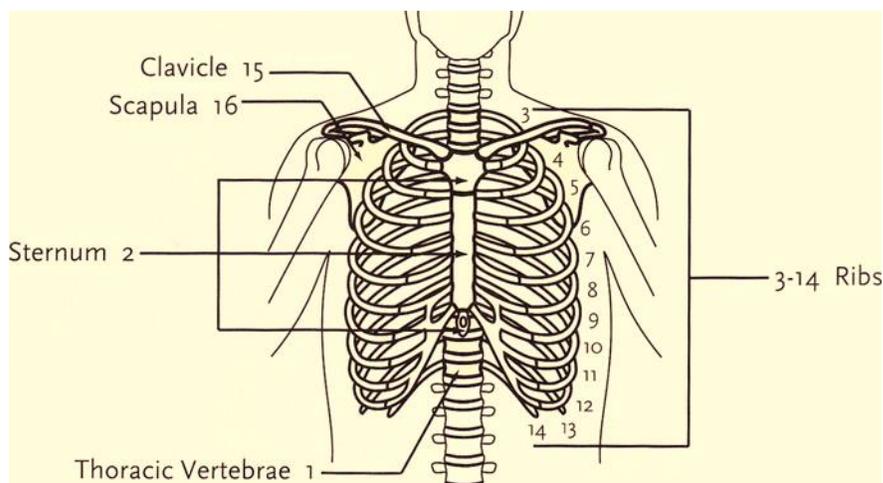
1- **Thoracic vertebrae** (tho-RAS-ik)  
or spine

2- **Sternum**

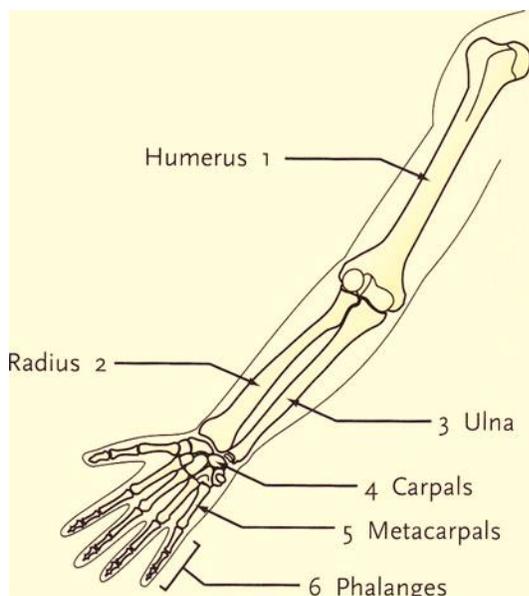
3-14- **Ribs**

15- **Clavicle** (KLAV-i-kel) or  
collarbone

16- **Scapula** (SKAP-yu-lah) or  
shoulder blade



## ARM, WRIST AND HAND BONES



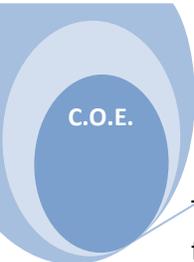
phalanges, while the thumb has only two.

1. The **humerus** (HU-mur-us), the largest bone of the upper arm, extends from the elbow to the shoulder.
2. The **radius** (RAD-ee-us) is the smaller bone on the thumb side of the lower arm or forearm.
3. The **ulna** (UL-nah) is the bone located on the little finger side of the lower arm.
4. The **carpals** (KAR-pels) are the eight small bones held together by ligaments to form the wrist or carpus.
5. The **metacarpals** (met-ah-KAR-pels) are the five long, thin bones that form the palm of the hand.
6. The **phalanges** (fah-LAN-jees) are the 14 bones that form the digits or fingers. Each finger has three

## The Muscular System

Between the bones and the skin lie the muscles. Estheticians perform treatments to benefit the skin. Often these treatments involve relaxing or stimulating the muscles that lie beneath the skin as well.

Estheticians must be concerned with the voluntary muscles that control movements of the arms, hands, lower legs, and feet. It is important to know where these muscles are located and what they control.



These muscles can become fatigued from excessive work or injury and your clients will benefit greatly from the massaging techniques you incorporate into your services.

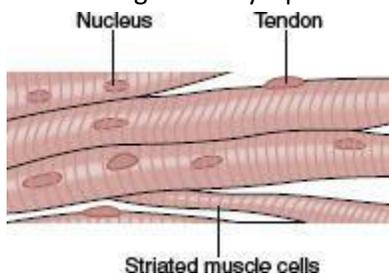
**Myology** (mi-OL-o-jee) is the study of the structure, function and diseases of the muscles. There are more than 500 large and small muscles in the body, which account for approximately 40% of the body's weight. Muscles are fibrous tissues that contract or relax when stimulated by messages carried by the nervous system, to produce movement.

To understand the functions of the muscular system, remember MAPS:

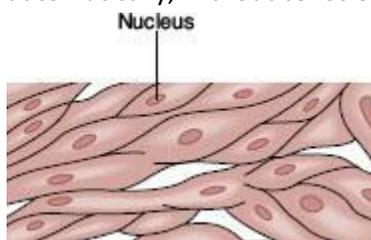
- Movement
- Attachment
- Protection
- Shape

There are three types of muscle tissues:

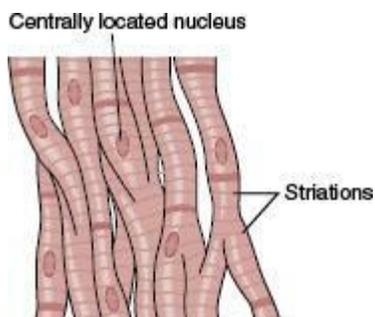
1. The **voluntary** or **striated** muscles respond to conscious commands. Striated muscles assist in maintaining the body's posture and protect some internal organ.



2. The **involuntary** or **non-striated** muscles respond automatically to control various body functions, including the internal organs. Muscles that are involuntary and function automatically, without conscious will.



3. The **cardiac** (heart) muscle is the muscle of the heart itself and the only muscle of its type in the human body. This muscle functions involuntarily. This type of muscle is not found in any other part of the body.



Some muscles function both voluntarily and involuntarily. For example, eye muscles respond to a conscious command to blink, but they also blink automatically to maintain eye moisture. The esthetician is primarily concerned with the voluntary muscles of the head, face, neck, arms and hands.

Each muscle has three parts, as shown in the illustration at the top of the next page.

Muscles produce movement through contraction (tightening) and extension (relaxing). When a contraction occurs, one of the muscle attachments moves at the insertion point, while the other remains fixed at the muscle's origin. All muscles are attached at both ends either by bone or another muscle. **Tendons** are the bands of fibrous tissue that attach the muscle to the bones. This is what allows bones to move when muscles contract and expand. **Ligaments** are dense, strong bands of fibrous tissue that connect the bones to each other. Bones in the joints are connected by ligaments.

### THREE PARTS OF A MUSCLE

1. The **origin** is the nonmoving (fixed) portion of the muscle attached to bones or other fixed muscle. The term "skeletal muscles" refers to the part of the muscle attached to bone.
2. The **belly** is the term applied to the midsection of the muscle, between the two attached sections.
3. The **insertion** is the portion of the muscle joined to movable attachments: bones, movable muscles or skin.

### Muscular Tissue Stimulation Tissues

Stimulation of muscular tissue can be achieved by using the following methods:

- Electric current (High Frequency and Faradic Current)
- Light rays (infrared rays and ultraviolet rays)
- Heat rays (heating lamps and heating caps)
- Moist heat (steamers, warm steam towels)
- Nerve impulses (through nervous system)
- Chemicals (certain acids and salts)

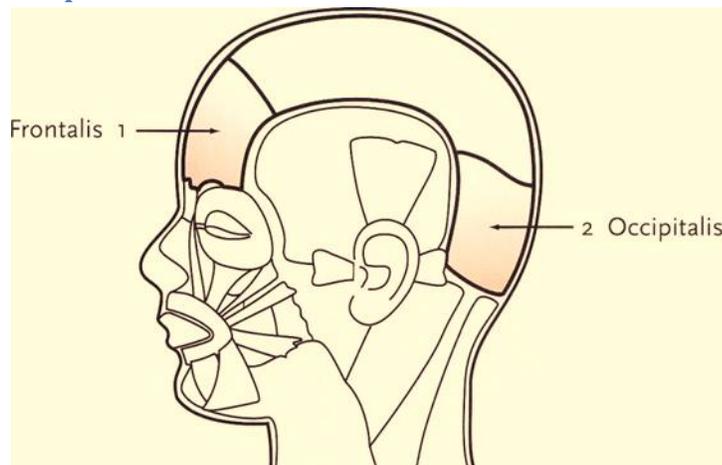
### Scalp and Face Muscles

The facial muscles are of primary concern to the skin care specialist when performing facial services. Muscles affected by massage are generally manipulated from the insertion to the origin attachment.

Massaging from the insertion point toward the origin is called “following the facial line.” This is why estheticians need to know the positions of facial muscles. Light facial massage, used when applying certain facial treatment products, should follow the facial line.

The charts on the following three pages illustrate and define the muscles of the scalp, ears, eyes, nose and mouth.

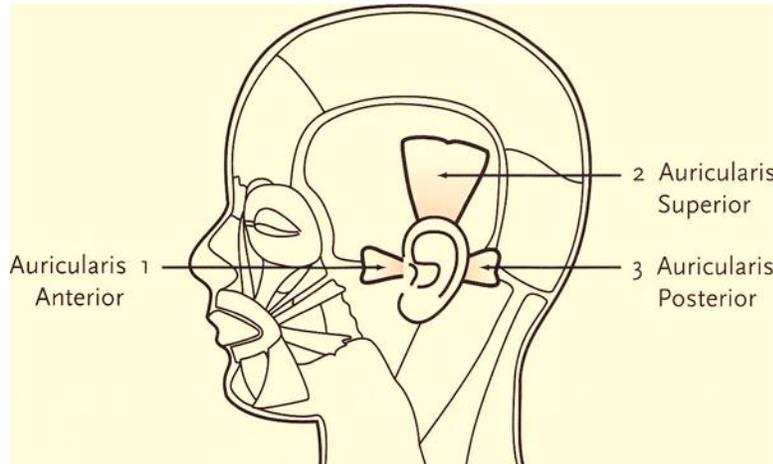
### Scalp Muscles



The scalp or **epicranium** (ep-i-KRA-nee-um) is covered by a broad muscle called the epicranium (ep-i-KRA-nee-us) or **occipito-frontalis** (ok-SIP-ih- to-frun-TAL-is). The epicranium is formed by two muscles joined by the **aponeurosis** (ap-o-noo-ROH-sis) tendon.

1. The **frontalis** (frun-TAL-is) muscle extends from the forehead to the top of the skull. It raises eyebrows or draws the scalp forward.
2. The **occipitalis** (ok-sip-i-TAL-is) muscle is located at the nape of the neck and draws the scalp back.

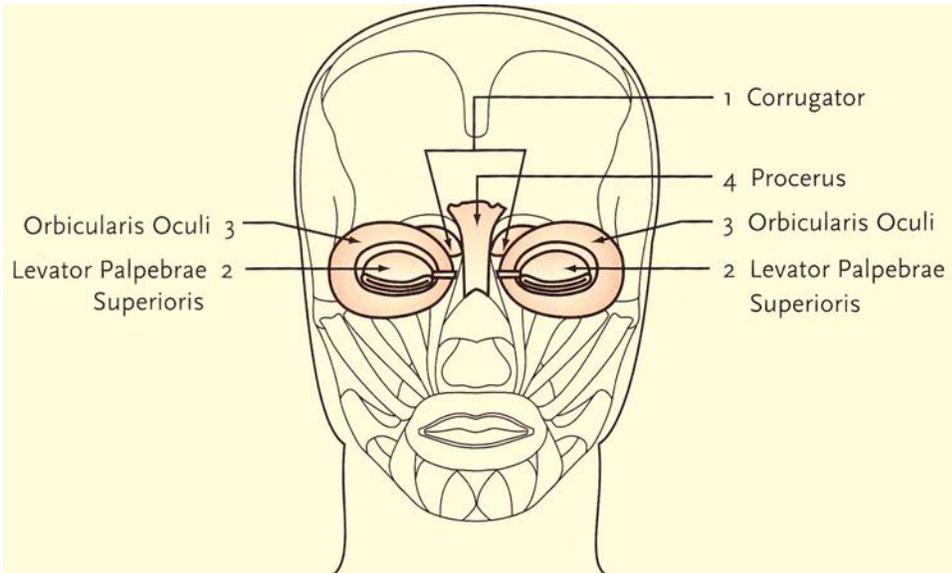
## Ear Muscles



The three muscles of the ear are stationary and have no recognized function.

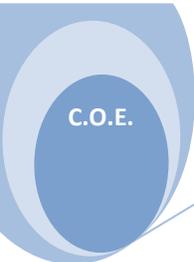
1. The **auricularis** (aw-rik-ya-LA-ris) **anterior** muscle is located in front of the ear.
2. The **auricularis superior** muscle is located above the ear.
3. The **auricularis posterior** muscle is located behind the ear.

## Eye and Nose Muscles



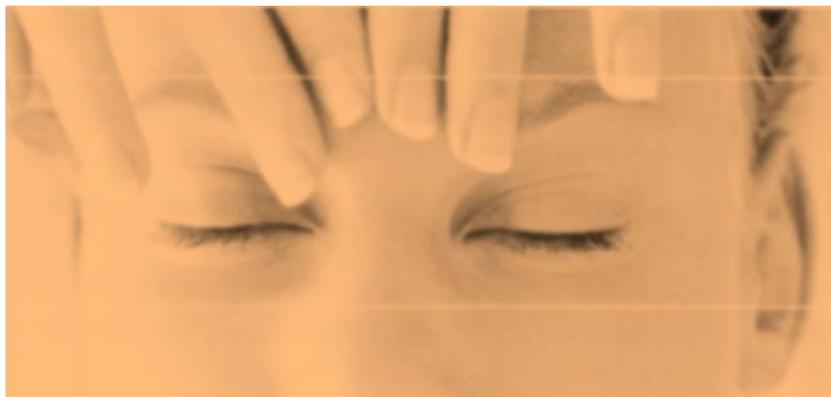
The muscles of the eyes and nose control the movement of the eyelids, eyebrows and the skin across the bridge of the nose.

1. The **corrugator** (KOR-e-gat-er), located under the eyebrows, controls the eyebrows, drawing them in and downward.
2. The **levator palpebrae** (pal-PEE-bray) superioris, located above the eyelids, opens the eyelid.
3. The **orbicularis oculi** (or-bik-ye-LAR-es AK-yu-le) circles the eye socket and closes the eyelid.

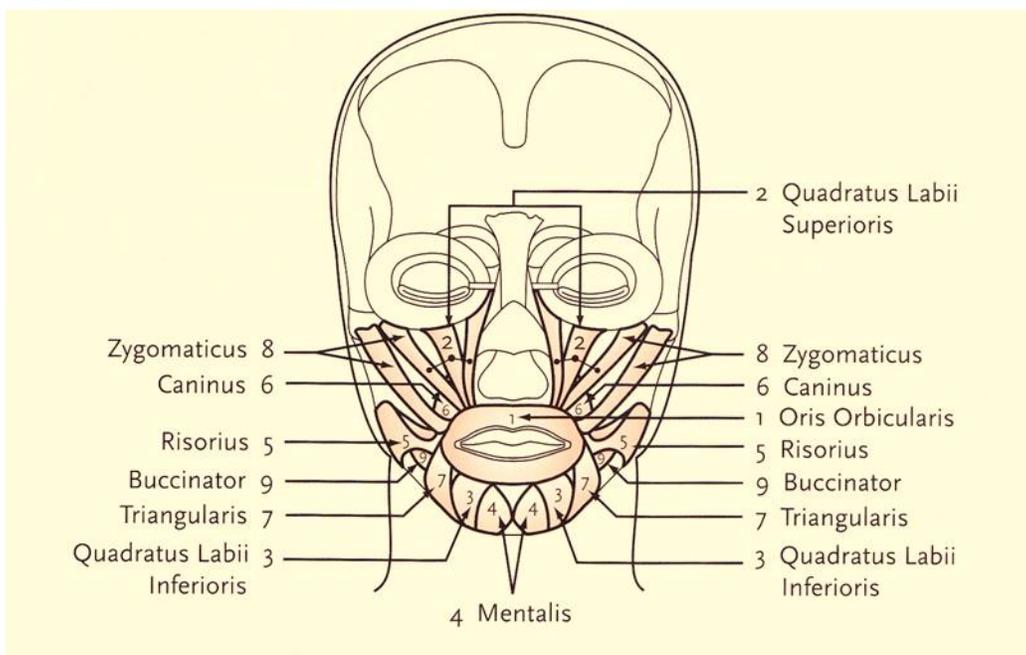


- The **procerus** (pro-SER-us), located between the eyebrows across the bridge of the nose, draws brows down and wrinkles the area across the bridge of the nose.

Four muscles located inside the nose, the **nasalis**, **posterior dilatator naris**, **anterior dilatator naris** and **depressor septi**, control contraction and expansion of the nostrils.

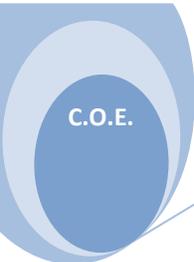


### Mouth Muscles



The muscles of the **mouth** control movement of the nostrils, lips, mouth, cheeks and chin.

- The **oris orbicularis** (O-ris or-bik-ye-LAR-es) circles the mouth and contracts, puckers and wrinkles the lips, as in whistling.
- The **quadratus labii superioris** (kwod-RA-tus la-be-i soo-peer-ee-OR-es) (also known as the levator labii superioris) consists of three parts. It is located above the upper lip, and raises both the nostrils and the upper lip, as in expressing distaste.



3. The **quadratus labii inferioris** (kwod-RA-tus la-be-i in-feer-ee-OR-es) (also known as the depressor labii inferioris), located below the lower lip, pulls the lower lip down or to the side, as in expressing sarcasm.
4. The **mentalis** (men-TAL-us), located at the tip of the chin, pushes the lower lip up and/or wrinkles the chin, as in expressing doubt.
5. The **risorius** (re-SOR-e-us), located at the corner of the mouth, draws the mouth up and out, as in grinning.
6. The **caninus** (kay-NEYE-nus) (also known as the levator anguli oris), located above the corners of the mouth, raises the angle of the mouth, as in snarling.
7. The **triangularis** (tri-an-gu-LAR-us) (also known as the depressor anguli), located below the corners of the mouth, draws the corners of the mouth down, as in expressing sadness.
8. The **zygomaticus** (zi-go-MAT-ik-us), located outside the corners of the mouth, draws the mouth up and back, as in laughing or smiling, and consists of zygomaticus major and minor.
9. The **buccinator** (BUK-si-na-ter), located between the jaws and cheek, compresses the cheek to release air outward, as in blowing.

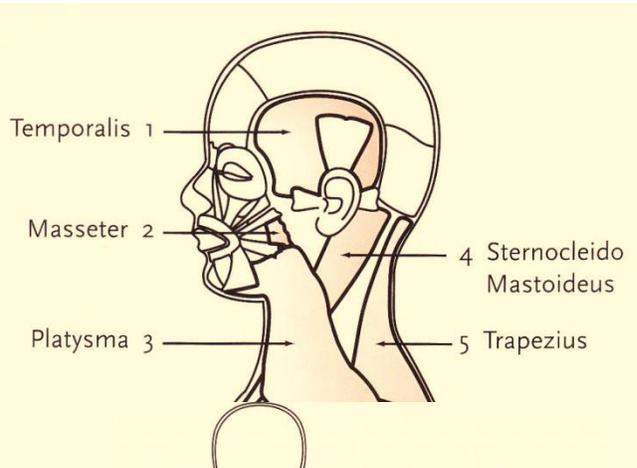
Estheticians also perform treatments on the muscles that open and close the jaw in a chewing motion, known as the **mastication** muscles. This chart identifies the muscles of mastication, neck and upper back. Also, the muscles of the shoulder, chest and arm are identified further in this section.

### MASTICATION, NECK AND UPPER BACK MUSCLES

The muscles of mastication control the opening and closing of the jaw, enabling us to chew and talk. They are directly linked to the neck and upper back muscles.

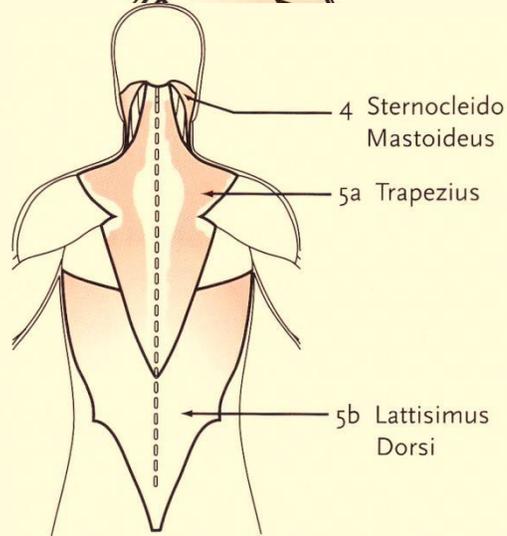
#### Mastication Muscles

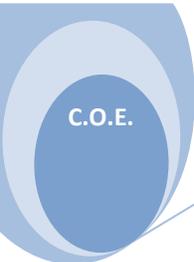
1. The **temporalis** (tem-po-RA-lis) is located above and in front of the ear and opens and closes the jaw (as in chewing, or mastication).
2. The **masseter** (MAS-se-ter) covers the hinge of the jaw and aids in closing the jaw, as in chewing.



#### Neck and Upper Back Muscles

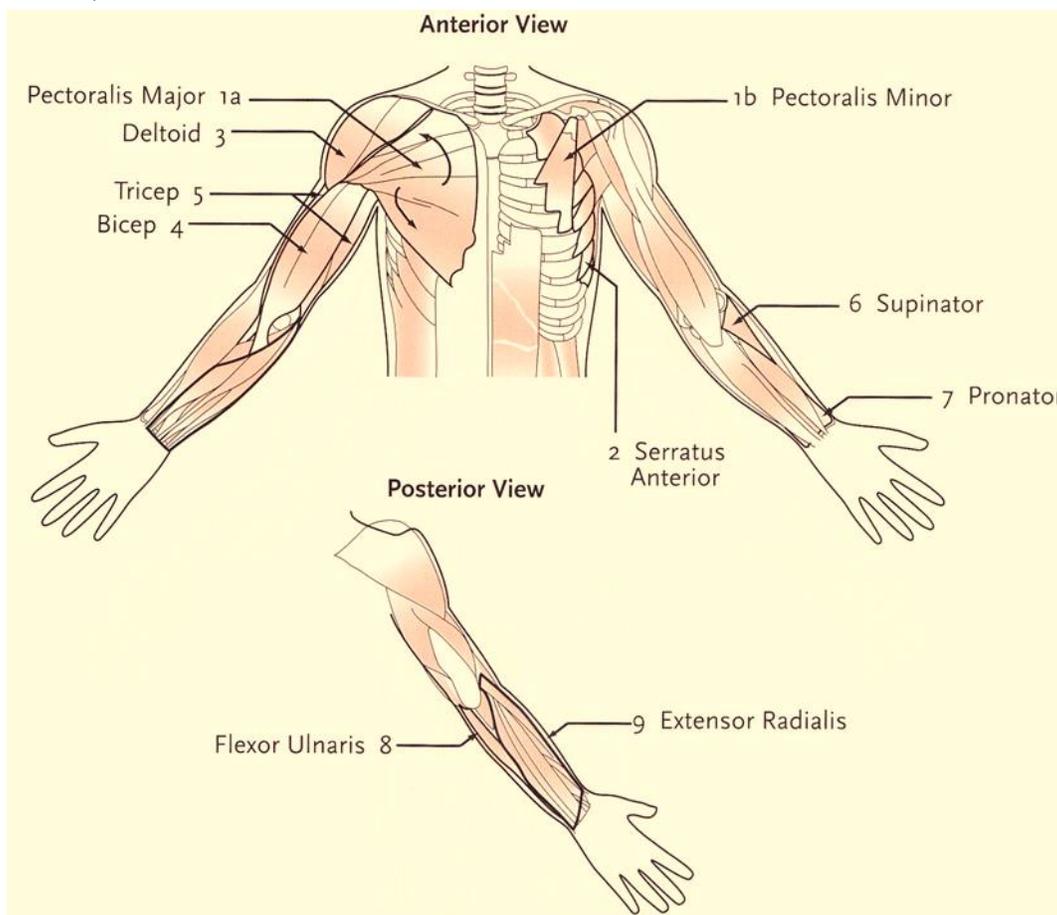
3. The **platysma** (plah-TIZ-mah) extends from the tip of the chin to the shoulders and chest and depresses the lower jaw and lip, as in expressing sadness.





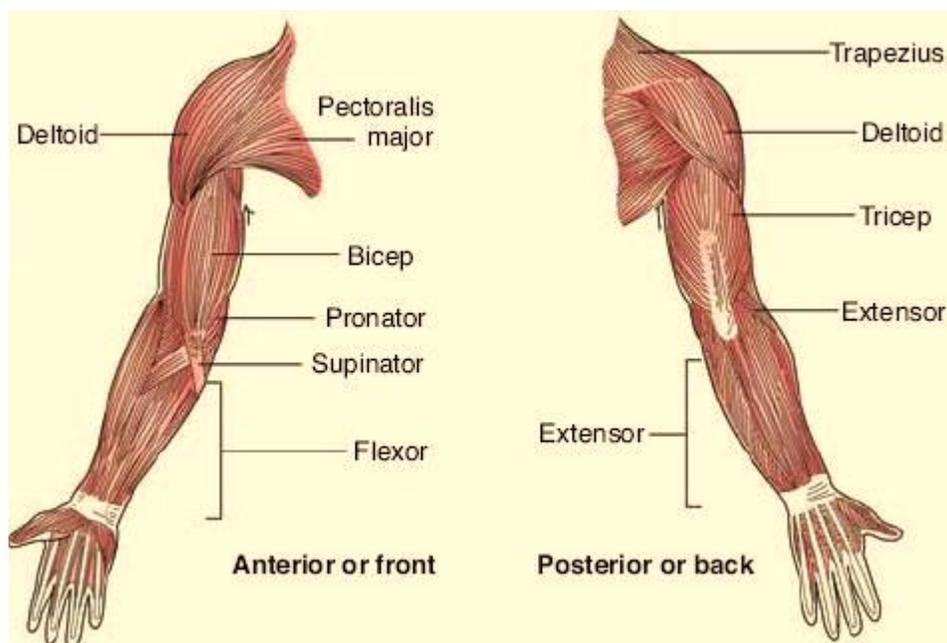
- 4. The **sternocleido mastoideus** (stur-no-KU-do mas-TOID-e-us) extends along the side of the neck from the ear to the collarbone and moves the head from side to side and up and down, as in nodding “yes” or “no.”
- 5. The **trapezius** (trah-PEE-zee-us) and **latissimus dorsi** (lah-TIS-i-mus DOR-si) cover the back of the neck and upper back. These muscles draw the head back, and control the shoulder blades and swinging motions of the arms.

### SHOULDER, CHEST AND ARM MUSCLES

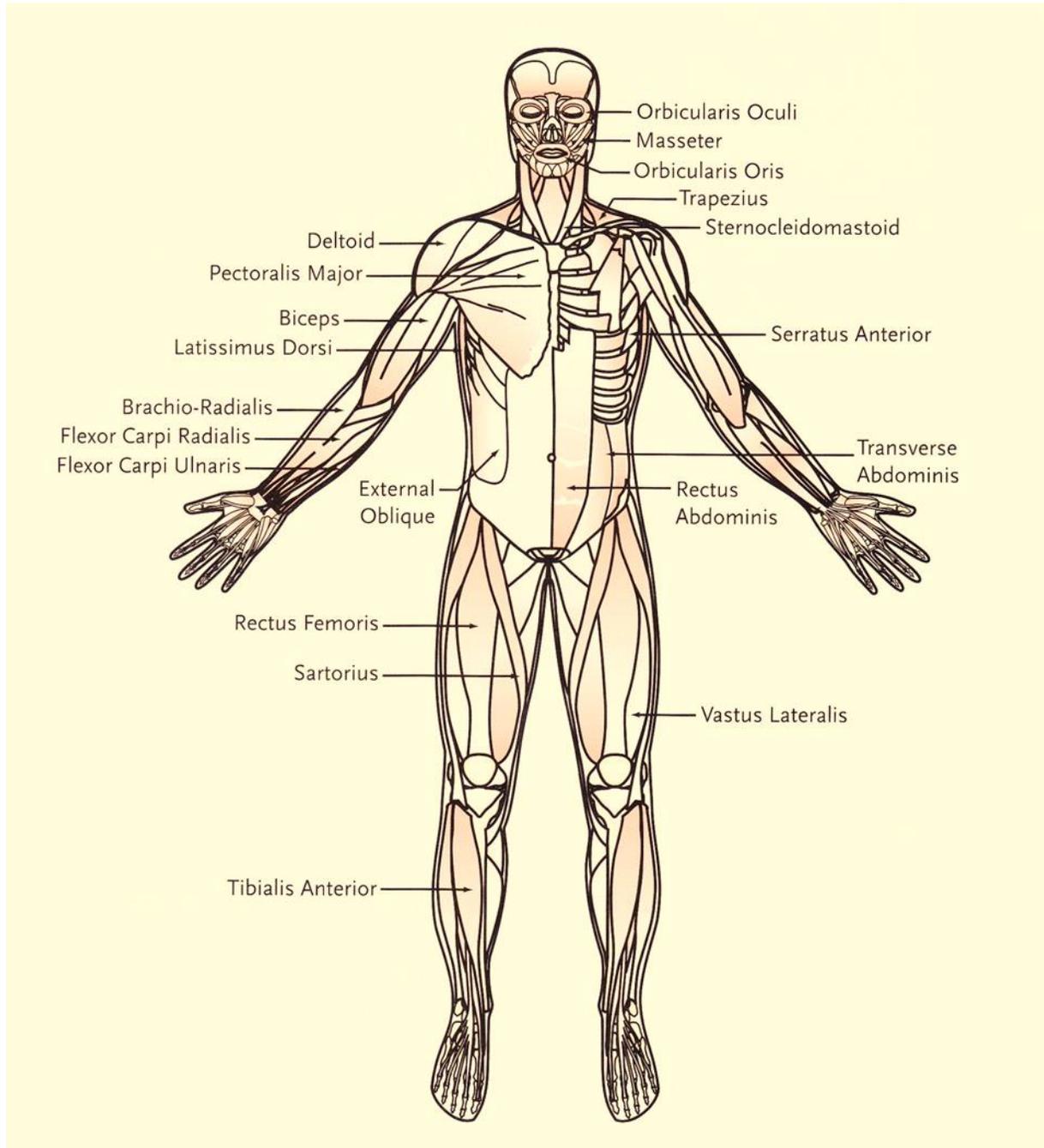


The **shoulder, chest and arm muscles** control the majority of the arm’s movements.

1. The **pectoralis** (pek-toe-RAL-us) **major** and **pectoralis minor** extend across the front of the chest. These muscles assist in swinging the arms.
2. The **serratus anterior** (ser-RA-tus an-TER-e-er) is located under the arm. This muscle helps in lifting the arm and moves during breathing.
3. The **deltoid** (DEL-toid) covers the shoulder. This triangular-shaped muscle lifts the arm or turns it.
4. The **bicep** (BI-sep) is the primary muscle in the front of the upper arm. This muscle raises the forearm, bends the elbow and turns the palm of the hand down.
5. The **tricep** (TRI-sep) extends the length of the upper arm posteriorly. This muscle controls forward movement of the forearm.
6. The **supinator** (SU-pi-nat-or) runs parallel to the ulna. This muscle turns the palm of the hand up.
7. The **pronator** (PRO-nat-or) runs across the front of the lower part of the radius and the ulna. This muscle turns the palm of the hand downward and inward.
8. The **flexor ulnaris** (FLEX-er uhl-NAR-is) is located mid-forearm, on the inside of the arm. This muscle bends the wrist and closes the fingers.
9. The **extensor radialis** (eks-TEN-sor ray-dee-AHL-is) is located mid-forearm, on the outside of the arm. This muscle straightens the fingers and wrist.

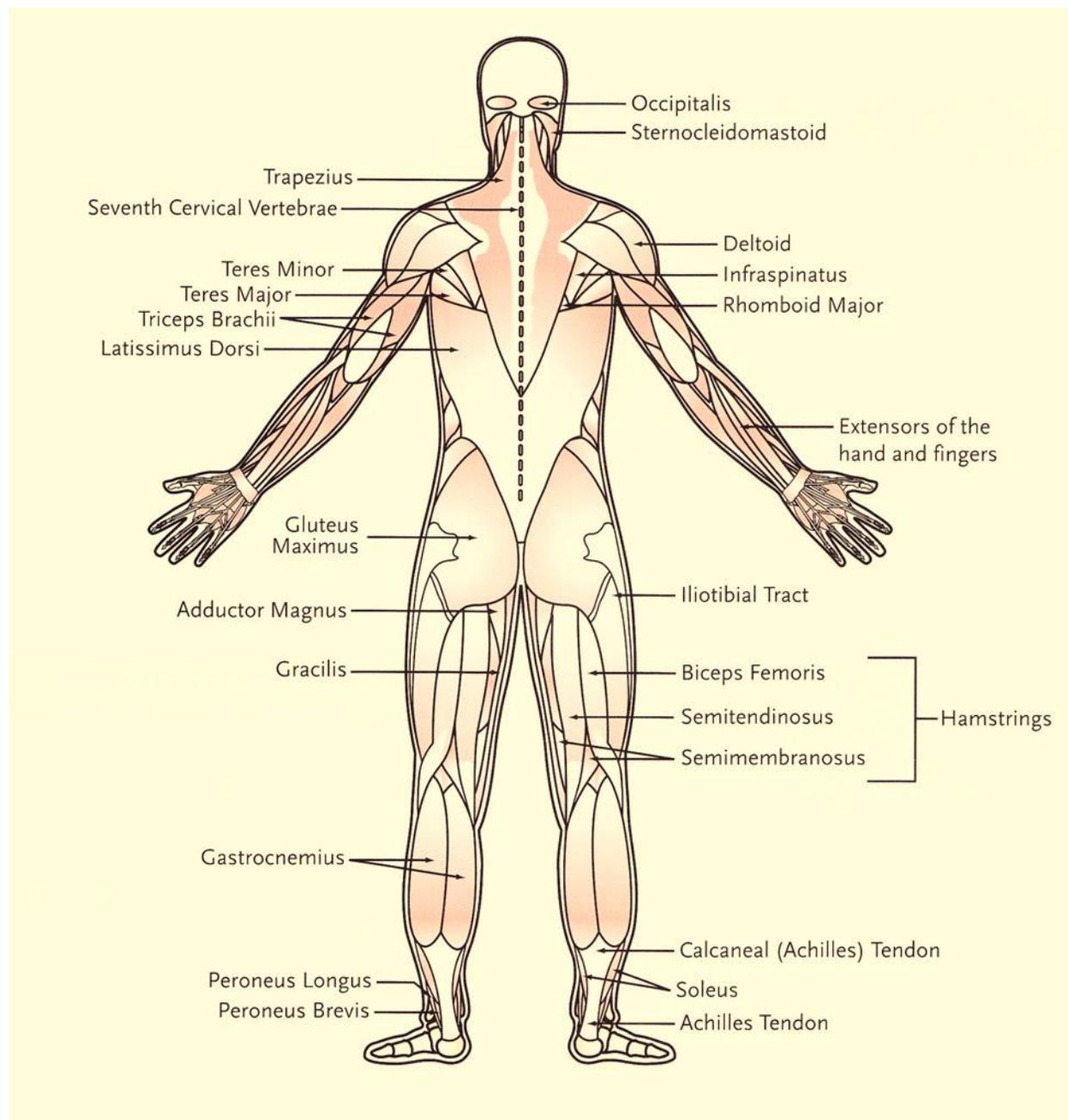


## MUSCULAR SYSTEM- ANTERIOR



Knowledge and understanding of the complete anterior muscular system is important when performing esthetic procedures such as facials, hand and arm massage and body treatments.

## MUSCULAR SYSTEM- POSTERIOR



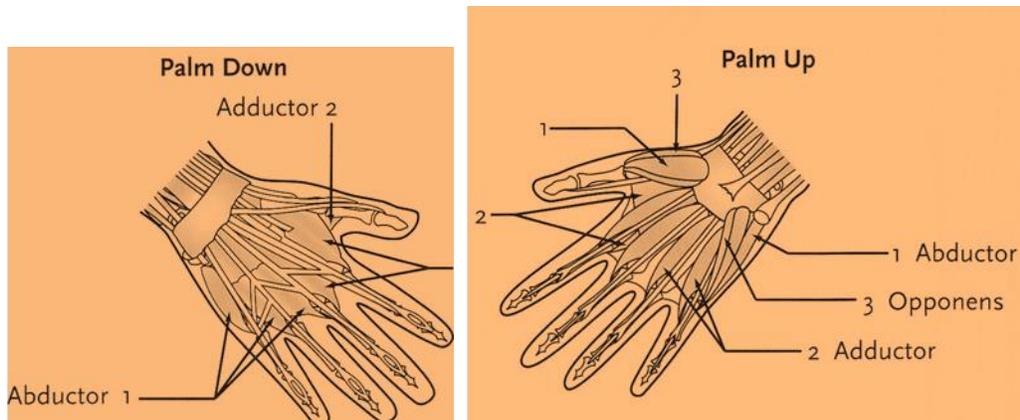
A complete understanding of the posterior muscular system is important when performing esthetic procedures such as a scalp massage, back facials and body treatments.

### HAND MUSCLES

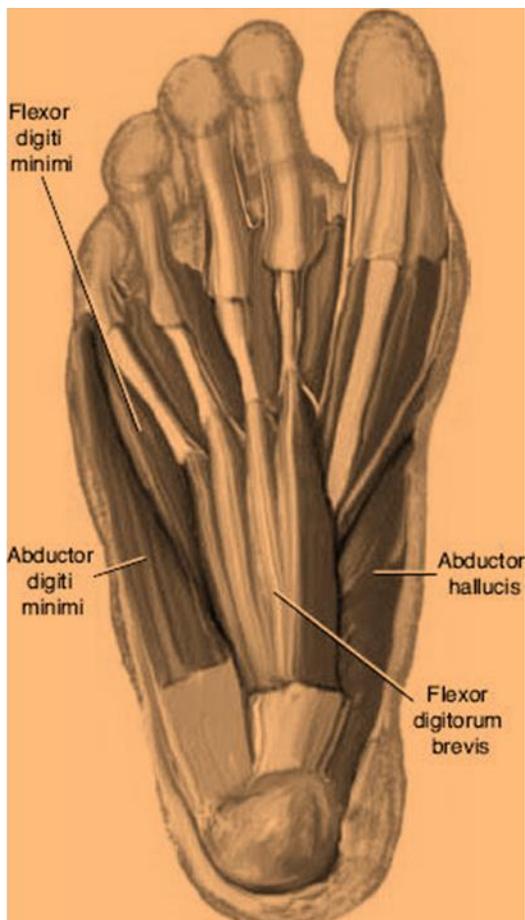
Knowing the muscles of the hands helps the esthetician perform skillful hand treatments.

A number of small muscles stretch over the fingers, connect the joints and provide dexterity.

1. **Abductor** (ab-DUK-tor) muscles separate the fingers.
2. **Adductor** (ah-DUK-tor) muscles draw the fingers together.
3. **Opponens** (uh-POHN-nenz) muscles are located in the palm of the hand and cause the thumb to move toward the fingers, allowing the hand to grasp or make a fist.



## MUSCLES OF THE FEET



The muscles of the feet include the following:

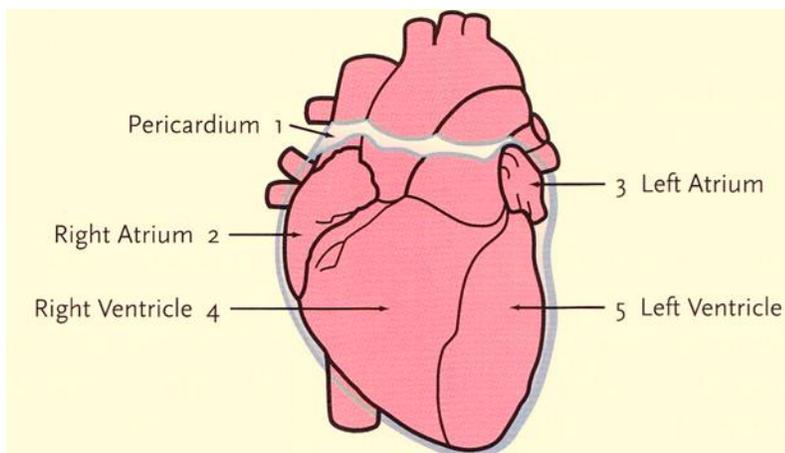
- **Flexor digiti minimi** (FLEK-sur dij-it-ty MIN-eh-mee). Muscle that moves the little toe.
- **Flexor digitorum brevis** (FLEK-sur dij-ut-TOHR-um BREV-us). Muscle that moves the toes and helps maintain balance while walking and standing.
- **Abductor hallucis** (ab-DUK-tohr ha-LU-sis). Muscle that moves the toes and helps maintain balance while walking and standing.
- **Abductor digiti minimi** (ab-DUK-tohr dij-it-ty MIN-eh-mee). Muscle that separates the toes.

## The Circulatory System

The circulatory or vascular system controls the circulation of blood and lymph through the body. As a professional esthetician, you may use massage techniques or perform treatments that will directly influence or stimulate this important body system. The circulatory system is made up of two interrelated subsystems:

1. The **cardiovascular** or **blood vascular system**, including the heart, arteries, veins and capillaries, circulates the blood.
2. The **lymph vascular** system circulates lymph through lymph glands, lymph nodes and vessels.

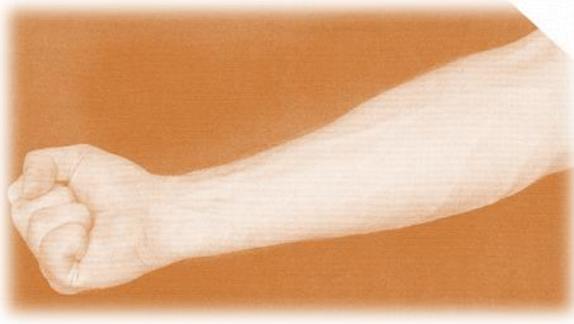
### The Heart



The heart is a fist-sized, cone-shaped, muscular organ located in the chest cavity. It is entirely encased in a membrane called the **pericardium**. The heart contracts and relaxes to force blood to move through the circulatory system. The interior of the heart contains four chambers: The upper chambers consist of the **right atrium** and the **left atrium**. The right and the left atrium are commonly referred to as the right and the left auricles. The lower chambers consist of the **right ventricle** and the **left ventricle**.

A normal heart beats 60 to 80 times per minute, according to impulses received from the sympathetic nervous system and the **vagus** (tenth cranial nerve), which helps regulate the heartbeat.

## The Cardiovascular System



The cardiovascular system transports blood through arteries, veins and capillaries, and combines with the lymph system to maintain steady circulation of the blood.

**Blood** is the sticky, salty fluid that circulates through the body, bringing nourishment and oxygen to all body parts and carrying toxins and waste products to the liver and kidneys to be eliminated. An average adult has eight to 10 pints of blood flowing through the circulatory system. Blood is made up of red and white corpuscles, platelets and plasma. These components are called blood cells and compose the semi-solid part of the blood.

**Red blood cells** (RBC) are also called **erythrocytes** (e-RITH-ro-sites) or red corpuscles. They carry oxygen and contain a protein called hemoglobin. **Hemoglobin** (HEE-mo-glo-bin) attracts oxygen molecules through a process known as **oxygenation** (ok-si-je-NAY-shun). The blood appears bright red in color when oxygen is being carried. As red blood cells move through the body, they release oxygen molecules and collect molecules of carbon dioxide. When oxygen is low, the blood appears darker, nearly blue.

**White blood cells** (WBC) are also called **leucocytes** (LOO-ko-sites) or white corpuscles. They help protect the body by fighting bacteria and other foreign substances, and they increase in number when infection invades the body.

**Blood platelets** (PLATE-letz) or **thrombocytes** (THROM-bo-sites) begin the process of coagulation, or clotting, when exposed to air or trauma in the skin tissue, such as bruising.

**Plasma** is the fluid part of the blood in which red and white blood cells and blood platelets are suspended. Plasma is about 90% water.

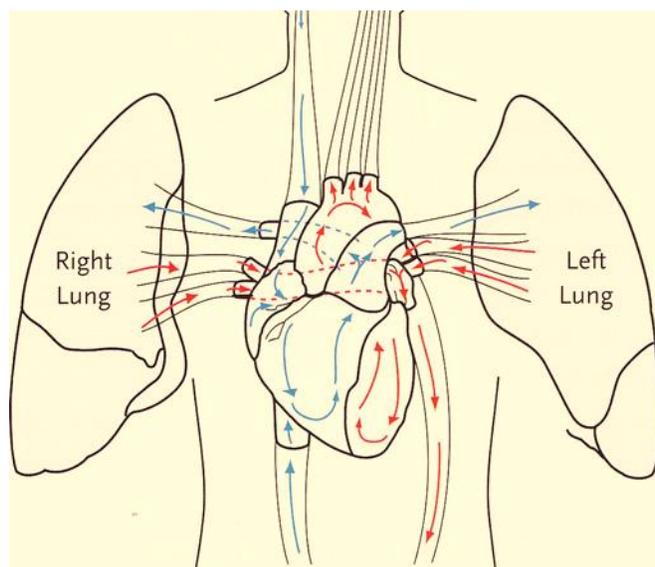
**Blood vessels** are any vessels through which blood circulates in the body. There are three types of blood vessels:

- **Arteries** are tubular, elastic, thick-walled branching vessels that carry oxygenated blood away from the heart through the body. Oxygenated blood is bright red.

- **Veins** are tubular, elastic, thin-walled branching vessels that carry oxygen-depleted blood from the capillaries to the heart. Veins contain cup-like valves to prevent backward flow. Veins are closer to the outer surface of the body than arteries.
- **Capillaries** are small vessels that take nutrients and oxygen from the arteries to the cells and take waste products from the cells to the veins.

Did you know there is a difference between a heart attack and cardiac arrest? A heart attack is an event that results in permanent damage or death to part of the heart muscle. With cardiac arrest, however, the heart stops beating altogether, resulting in sudden cardiac death in the absence of immediate medical attention. Cardiopulmonary resuscitation (CPR) does not actually restart the heart, but it can help keep the victim alive. CPR should only be performed by a person who is certified in CPR.

### BLOOD FLOW THROUGH THE HEART



The red arrows in this illustration show the oxygen-rich blood that flows from the heart through the arteries to the rest of the body. The blue arrows represent the blood traveling back to the heart through the veins.

The illustrations on the next page and a half identify the arteries and veins of the head and neck. Arteries are shown in red and veins are in blue.

Arteries transport blood away from the heart and veins return blood to the heart.

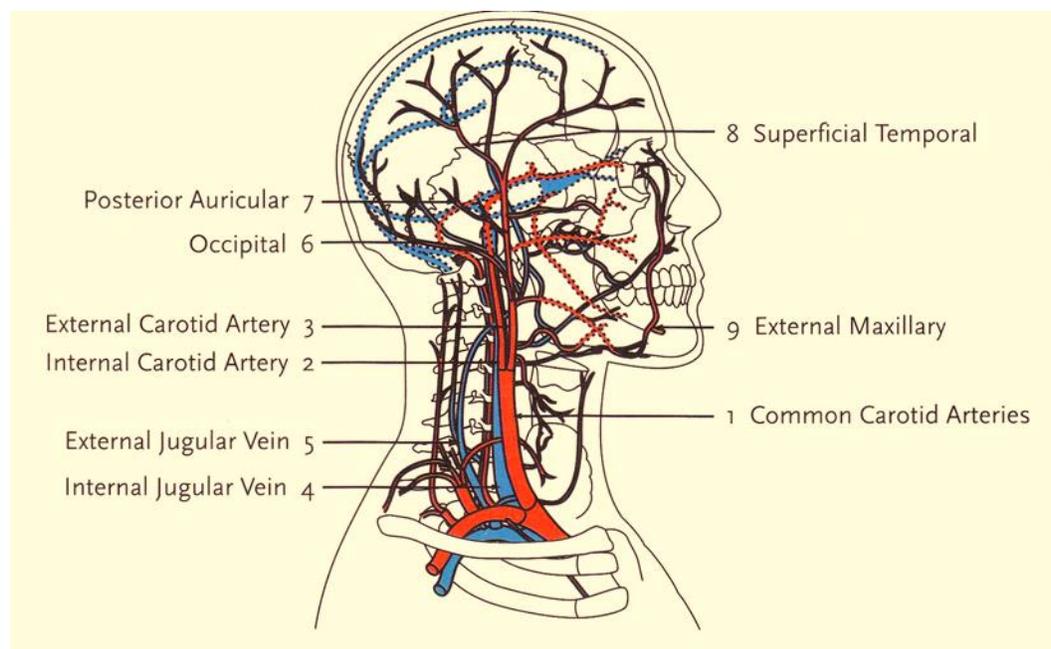
The process of blood traveling from the heart throughout the body and back to the heart is referred to as **systemic** or **general circulation**. The process of blood flow through the heart is as follows:

1. Oxygen-depleted blood enters the right auricle through the **superior vena cava**.
2. From the right auricle, blood is pumped through the **tricuspid** (tri-KUS-pid) valve into the right ventricle.
3. From the right ventricle, blood is pumped into the **pulmonary** (PUL-mo-ner-e) **artery**. Blood travels through the pulmonary artery to the lungs where it is oxygenated (combined with oxygen). This phase of the circulation of blood is referred to as **pulmonary circulation**.
4. From the lungs, the newly oxygenated blood returns to the heart via the pulmonary vein and enters the heart's left auricle.
5. Blood is pumped from the left auricle to the left ventricle by the bicuspid valve, or mitral valve.
6. From the left ventricle, blood pumps through the valve into the aorta.

7. Blood then flows from the aorta to arterioles, capillaries, venules (small veins that join capillaries to larger veins) and veins as it circulates through the body, only to return to the superior vena cava and begin the circulatory process once again.

### ARTERIES AND VEINS OF THE FACE, HEAD AND NECK

Blood is supplied to the head, face and neck by the **common carotid arteries (CCA)** located on either side of the neck. Each of these arteries split into an **internal carotid artery (ICA)** and an **external carotid artery (ECA)**. The internal carotid artery supplies blood to the brain, eyes and forehead. The external carotid branches into smaller arteries, supplying blood to the skin and muscles of the head. All blood from the head, face and neck returns through two veins, the **internal (IJV)** and **external jugular (EJV)**



(JUG-u-lur) veins. The external carotid artery branches into smaller arteries.

- 1- The **common carotid** (kah-ROT-id) arteries (**CCA**) located on either side of the neck.
- 2- The **internal carotid artery (ICA)** supplies blood to the brain, eyes and forehead.
- 3- The **external carotid artery (ECA)** branches into smaller arteries, supplying blood to the skin and muscles of the head.
- 4- The **internal jugular (IJV)** (JUG-u-lur).
- 5- The external jugular (EJV).

- 6- The **occipital** (ak-SIP-et-el) **artery** supplies blood to the back of the head, up to the crown.
- 7- The **posterior auricular** (pos-TER-e-or aw-RIK-u-lur) supplies blood to the scalp above and behind the ears.
- 8- The **superficial temporal** (su-pur-FI-shul TEM-po-ral) supplies blood to the sides and top of the head and branches into five smaller arteries that supply these locations:
  - Frontal artery, which supplies forehead
  - Parietal artery, which supplies crown and sides of the head
  - Middle temporal, which supplies temples
  - Transverse artery, which supplies masseter
  - Anterior auricular, which supplies anterior part of the ear
- 9- The **external maxillary** (EKS-tur-nal MAK-si-ler-ee) or **facial artery** supplies blood to the lower portion of the face, including the mouth and nose. Like the superficial temporal artery, the external maxillary branches into smaller arteries that supply these locations:
  - Submental artery, which supplies chin and lower lip
  - Inferior labial, which supplies lower lip
  - Angular artery, which supplies sides of the nose
  - Superior labial, which supplies upper lip and septum

## The Nervous System

The **nervous system** coordinates and controls the overall operation of the human body by responding to both internal and external stimuli. The study of the nervous system is called **neurology**.

The nervous system is made up of three subsystems:

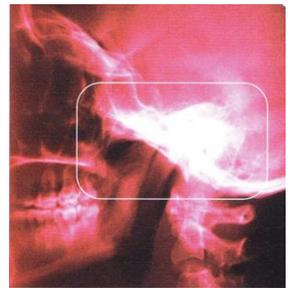
1. The central or cerebrospinal nervous system
2. The peripheral nervous system
3. The autonomic nervous system

Primary components of the nervous system are the brain, spinal cord and nerves. These components operate together to receive and interpret stimuli and send impulses to tissues, muscles and organs. The illustration on the opposite page identifies the components of the brain.

## The Central Nervous System

The central or cerebrospinal nervous system is composed of the brain and spinal cord. The central nervous system controls all voluntary and involuntary body action.

The spinal cord is made of long nerve fibers that originate in the base of the brain and extend to the base of the spine. The spinal cord holds 31 pairs of spinal nerves that branch out to muscles, internal organs and skin.



## The Peripheral Nervous System

The peripheral (pe-RIF-ur-al) nervous system is composed of sensory and motor nerves that extend from the brain and spinal cord to the voluntary muscles of the body and to the surface of the skin. The peripheral nervous system also carries sensory information to the brain from the ears, eyes, nose and tongue. This information travels to and from the brain by a network of nerve cells. This network also carries messages to and from the central nervous system.

## The Autonomic Nervous System

The autonomic nervous system is part of the central nervous system, and controls the respiratory, digestive, circulatory, excretory, endocrine and reproductive systems. It governs all involuntary body functions such as breathing, blinking, sweating and digesting.

The autonomic system consists of two subsystems:

- The sympathetic nervous system, which accelerates the heart rate, constricts blood vessels and raises blood pressure.
- The parasympathetic nervous system, which slows the heart rate, dilates blood vessels and lowers blood pressure.

The same nerve tissues are involved but they perform different functions. Sympathetic nerves respond to the body's physiological status. For example, in stressful situations, blood pressure increases. In contrast, when the body is relaxed, the parasympathetic nerves respond by lowering blood pressure. Their opposing functions help keep the body balanced, or in a state of homeostasis (ho-mee-oh-STAY-sis).

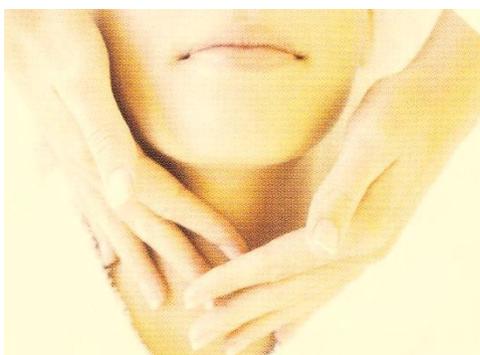
## Nerves and Massage

The nerves of the face, head and neck may be stimulated or soothed during facials or facial massage. During massage of the face and neck, manipulations can stimulate sensitive nerve tissues, resulting in nerve impulses that expand and contract corresponding muscles.

The same methods used to stimulate muscular tissue are used to stimulate nerve tissues.

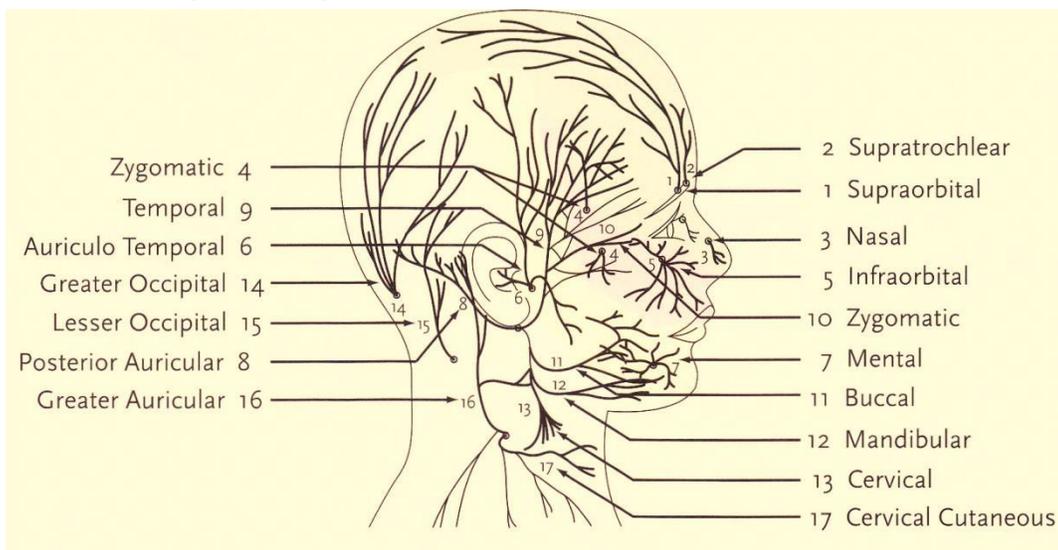
- Massage

- Electric current (High-Frequency and Faradic Current)
- Light rays (infrared rays and ultraviolet rays)
- Heat rays (heating lamps and heating caps)
- Moist heat (steamers, warm steam towels)
- Nerve impulses (through nervous system)
- Chemicals (certain acids and salts)



Through this process, fatigued muscles can be soothed and tense muscles relaxed. Muscle relaxation is also achieved by stimulating nerves using heat to expand muscles and cold to make muscles contract.

## FACE, HEAD AND NECK NERVES



### The Trifacial Nerve

The trifacial nerve (fifth cranial nerve) is the chief sensory nerve of the face. The largest of the cranial nerves, the trifacial nerve also acts as a mixed nerve with the primary function of transmitting facial

sensations to the brain and for controlling the muscle movements of chewing (mastication). The trifacial nerve divides into three main branches.

**Branch One:** The **ophthalmic** (of-THAL-mik) branch (colored green on the diagram) is the main nerve branch to the top 1/3 of the face, which further divides into:

1. The **supraorbital**, extending to the skin of the upper eyelid, eyebrow, forehead and scalp.
2. The **supratrochlear** (soo-pra-TRO-klee-ur), extending to the skin of the upper side of the nose and between the eyes.
3. The **nasal**, extending to the tip and lower side of the nose.

**Branch Two:** The **maxillary** (MAK-si-ler-e) branch (colored pink on the diagram) is the main nerve branch to the middle 1/3 of the face, which divides into:

4. The **zygomatic** (zi-go-MAT-ik) extends to the side of the forehead, temple and upper part of the cheek.
5. The **infraorbital** extends to the lower eyelid, side of the nose, upper lip and mouth.

**Branch Three:** The **mandibular** (man-DIB-u-lur) branch (colored yellow on the diagram) is the main nerve branch to the lower 1/3 of the face and divides into:

6. The **auriculo temporal** (aw-RIK-u-lo TEM-po-ral) extends to the ear and to the area from the top of the head to the temple,
7. The **mental** extends to the lower lip and chin.

Understanding the human body will help you make decisions that will enhance your client's appearance. In addition, reviewing the fundamental structures and systems of the body prepares you to learn massage techniques used in skin care services.

Your mastery of the important aspects of physiology and anatomy is an important skill in a profession built on the power of touch.

# Hair Removal

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## Segment Outline:

1. Hair Growth Cycle
  - Hirsutism
  - Hair Life Cycle
2. Temporary Removal Methods
  - Shaving
  - Chemical Depilatories
  - Tweezing
  - Waxing
  - Threading
  - Sugaring
3. Permanent Removal Methods
  - Electrolysis
  - Galvanic Method

- Thermolysis Method
  - Blend Method
  - Laser Hair Removal
  - Photo-Epilation or Pulsed Light
4. Eyebrow Shaping
  5. Waxing Essentials
    - Waxing Products
    - Waxing Implements and Supplies
    - Waxing Equipment
  6. Infection Control and Safety
    - Contraindications
    - Skin Conditions
    - Health Conditions
    - Safety Precautions for Hot and Cold Waxing
  7. Client Consultation
  8. 4713-8-04 Standards Relating to Competent Practice as an Esthetician

**Segment Objective:**

Upon the completion of this segment of the course, you will be able to:

- ◆ Demonstrate the techniques involved in temporary hair removal.
- ◆ Name the conditions that contraindicate hair removal in the salon.
- ◆ Describe the elements of a client consultation for hair removal.
- ◆ Identify and describe three methods of permanent hair removal.
- ◆ Explain techniques for each type of hair removal and how procedures differ for face and body.
- ◆ Demonstrate infection control, safety measures and the client consultation for each waxing service.

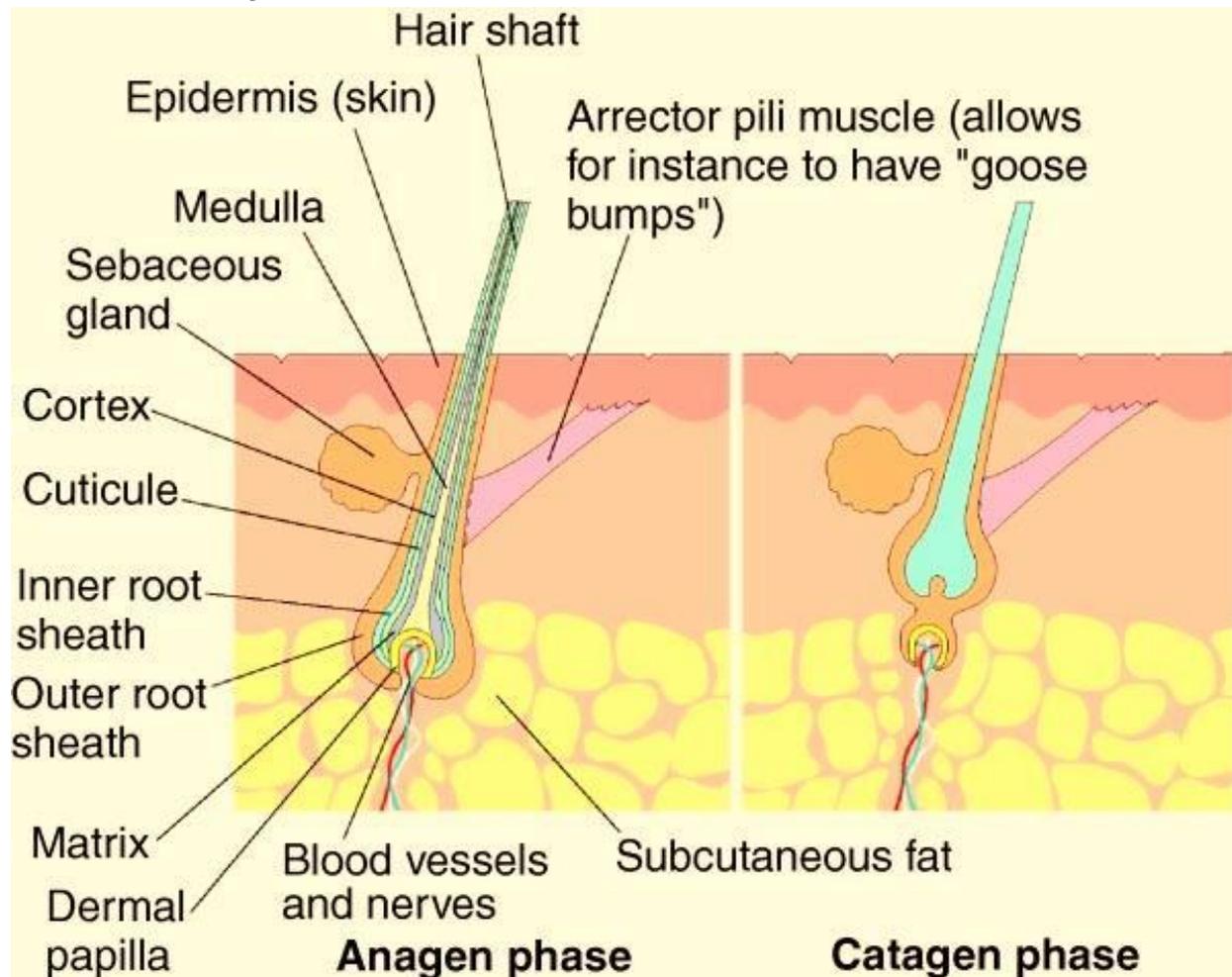
# Hair Removal

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## HAIR GROWTH AND REMOVAL

Hair removal is one of the fastest growing services in the salon and spa businesses. Short-term hair removal processes include shaving, the use of chemical depilatories, tweezing and waxing. Permanent hair removal methods, such as electrolysis and laser hair removal, require the use of electrical equipment and specialized training and licensing. The process of removing hair from the follicle is referred to as epilation. As with any treatment, it is important to understand the structure and function of what you are working with to achieve the desired results. For hair removal, you will need to be familiar with the hair growth cycle.

## Hair Growth Cycle



The hair follicle originates in the dermis, where it is rooted in the dermal papilla bulb and nourished by the capillaries that carry blood and oxygen to the bulb. Follicles may contain more than one hair, each in various stages of growth.

There can be up to 100 follicles in one square centimeter of skin. An even greater number can be found in more dense areas, such as the back, where there might be up to 150 follicles in one square centimeter of skin. Sebaceous glands that secrete oil to lubricate the hair and skin are also attached to the follicles. Overactive sebaceous glands lead to oily hair and skin.

## Hirsutism

**Hirsutism** (HER-se-tizm) typically affects women by causing dark hair to grow in areas of the body where men usually grow more hair, such as the face, arms, legs and back. Some individuals experience excessive hair growth on various areas of the body.

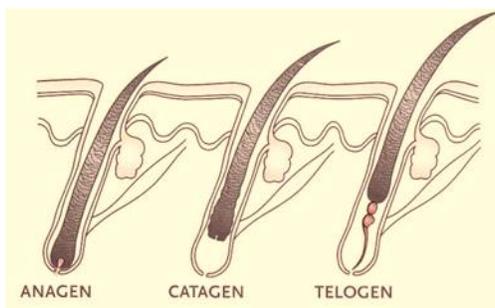
This excessive hair growth occurs as a result of an increased amount of the hormone androgen. Hirsutism is often a result of the hormonal imbalances women experience during menopause. Another condition that causes excessive hair growth is **hypertrichosis** (hi-per-tri-KOH-sis), which is genetically determined and can occur anywhere on the body in both men and women. The production of androgen has no influence on this hair growth.

## Technical Hair Terms

The technical hair terms below are terms used to identify the hair that grow on different areas of the body:

- **Capilli:** Hair that grows on the scalp
- **Barba:** Thick, coarse hair that grows on the face to form a beard
- **Cilia:** Eyelash hair
- **Supercilia:** Eyebrow hair
- **Lanugo:** Soft, downy hair on the body at birth
- **Vellus:** Thin, soft, unpigmented hair covering the body
- **Terminal:** Thicker, pigmented hair that grows on areas of the body after puberty

## Hair Life Cycle



The life cycle of a hair consists of three phases— **anagen**, **catagen** and **telogen**. During the first and longest phase, called anagen, the hair actively grows. During the transitional and shortest phase, called catagen, the hair begins to destroy itself as it disconnects from the papilla. During the last phase, called telogen, the hair sheds, and the follicle rests and prepares to resume the anagen phase. This complete cycle takes an average of four to 12 weeks for body hair, depending on individual factors such as health,

nutrients, vitamins and minerals as well as hereditary factors. All the hair on a human being is in one of these three phases at any given time.

Why does the hair on your head grow long, but your body hair stays short? It's because the hair follicles on your body are "programmed" to stop growing every month or two, while follicles on your head let hair grow for years.

Waxing weakens the papilla, which can eventually inhibit the hair from returning.

However, because each individual hair within the same follicle is in any one of the three stages at once, waxing only destroys the hairs in the follicle that are in the anagen phase with each waxing service. With each subsequent waxing service, more and more of the anagen-stage hair is removed, causing the regrowth to appear to grow more slowly and sparsely.

## Temporary Removal Methods

Depending upon the method used, temporary hair removal techniques result in different rates of regrowth. For instance, shaving will cause regrowth that may be coarse and stubbly within a matter of hours or days, while waxing may cause hair to grow back with an increasingly finer texture over a matter of several weeks.

### Shaving

Usually performed by the client at home, shaving with an electric shaver, clipper or razor removes hair from the surface of the skin.

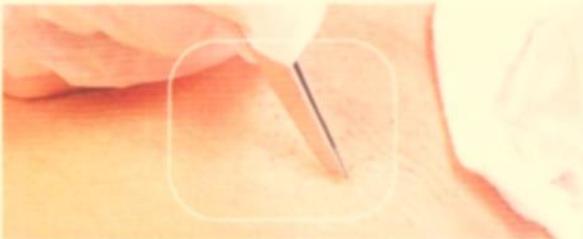
Shaving is often used to remove hair from large areas, such as the legs. Because none of the hair is destroyed at the root, it usually grows back, beginning with short stubble, within 24-48 hours. If the client has dark hair, a "shadow" may be visible beneath the skin. If you perform a shaving treatment with a razor, apply shaving creme before the service to soften the skin and reduce the potential for dryness or irritation from the razor blade. A moisturizing creme or lotion should be used afterward as well to keep the skin soft and help eliminate dryness or flaking.

### Chemical Depilatories

A chemical depilatory is a painless method of hair removal that dissolves the hair at skin level. Chemical depilatories are usually available in a creme, paste or powder form. The main ingredient in these products is a thioglycolic acid derivative, with an alkaline pH, that chemically softens and dissolves the protein structure of the hair. A patch test must be performed on the client to determine sensitivity to any depilatory product prior to use. If the client develops itching, burning or inflammation, the chemical depilatory service should not be performed. It is important to always read and follow the manufacturer's instructions. Petroleum jelly should be applied to areas surrounding the hair to be removed to prevent the chemical from seeping into unwanted areas and causing irritation. Chemical depilatories are generally left on for no more than 10 minutes and then removed with a paper towel.

The skin is rinsed thoroughly; patted dry then a soothing lotion is applied. Since the hair is removed at the skin's surface, regrowth will occur within several days.

## Tweezing



Tweezing may be used to remove unwanted hair from smaller areas, such as the eyebrows, chin or around the mouth. It would be too time-consuming and painful to use this method on larger areas of the body. To tweeze, an individual hair is grasped with the tweezers and removed in the direction of the hair growth, effectively extracting it from beneath the skin's surface. Makeup artists often shape eyebrows solely with tweezers, but as an esthetician, you will most likely use wax or a combination of wax and tweezers. Any client that prefers to only use tweezing as his or her hair removal method may need standing appointments as frequently as once a month since the results typically last three to eight weeks. Note that tweezing can be very beneficial in finishing the eyebrow design. Before tweezing and/or waxing eyebrows, you should refer to the Eyebrow Shaping chart on page 379 to learn more about eyebrow design before performing either service.

## Waxing

One of the most requested hair removal services that you will be asked to perform is waxing. Waxing is a temporary hair removal process that involves applying wax directly to the skin and then removing the wax and hair. It often accounts for up to half of an esthetician's service revenue. For the professional with ample training, waxing is quick and simple. Also, because waxing materials are inexpensive, it is a very profitable service, with profit margins as high as 90%. In fact, for this reason, many estheticians decide to specialize in waxing.

Waxing is also a service that can help you to build an esthetics clientele by cross-promoting other services. For example, if you were assessing a client's skin to prepare for an eyebrow wax, it would be very natural during the consultation to discuss other facial services that would benefit the client. However, before suggesting any hair removal method, take into account the area(s) to be waxed and the client's needs, preferences, sensitivity and hair type. Consider the amount that your client is willing to spend since the cost of different methods can vary greatly.

Waxing removes hair from both large and small areas. Waxing services are most



commonly performed on legs, arms, underarms, chin, eyebrows, lip areas, hairlines, bikini lines, backs, breasts, fingers and toes. (Note: If you are waxing a client's breasts, never apply wax to the nipples.) The most popular waxing service in the skin care center is the upper lip.

Waxing involves the application of warm wax directly to the skin.

The wax adheres to the hair and then both the wax and the hair are removed simultaneously. Waxing can be uncomfortable, so it is important to check for contraindications and perform this service as accurately and efficiently as possible. Waxing results can last for as long as four to six weeks.

Waxes can be made of a variety of ingredients, including honey, beeswax, various oils, resins, sugar or azulene. The wax should always be heated to the temperature indicated by the manufacturer to ensure the proper consistency and client comfort.

Professional-grade waxes are basically categorized as hard wax or soft (strip) wax. The type that you choose depends on several factors, including:

- Area to be waxed
- Client's needs and hair type
- Client's contraindications
- Client's skin sensitivity
- Client's budget
- Personal preference

### Soft Wax

The majority of professional waxing services are performed with soft wax (also known as a classic wax) because hair removal over large areas can be accomplished quickly and easily with this type of wax. Soft wax is melted in a heated wax pot, applied to the skin in a thin layer with a spatula and covered with strips of material such as muslin or Pellon®. The material is then lifted off of the skin, removing the wax and the hair simultaneously. The strips can be used at least twice on the same client.

### Hard Wax

This wax usually is ideal for small areas and thinner, more sensitive skin. Hard wax is warmed in a heated wax pot, applied with a spatula in a thick layer to the skin, allowed to harden and then lifted with the fingers at one end and removed. It should be removed in the opposite direction it was applied, which is against the hair growth. Hard wax does not require the use of a fiber strip. Hard wax is most commonly used for facial hair removal, but is also appropriate for sensitive bikini and underarm hair removal.

Your client should observe certain guidelines to make any waxing service as comfortable and effective as possible. Many estheticians provide these guidelines in a written format and mail them to clients prior to their appointment. Others prefer to explain them on the phone at the time the appointment is booked.

## GENERAL WAXING CONSIDERATIONS

### BEFORE

Prior to the waxing service, advise your clients of some pre-waxing considerations shown below:

- Cease shaving or tweezing the area to be waxed at least 2 to 4 weeks in advance. The hair should be at least 1/4-inch (.75 cm) in length.
- Avoid physically or chemically exfoliating at least 48 hours prior to the waxing service to avoid skin sensitivity.
- Avoid excessive sun exposure at least 48 hours prior to the waxing service.
- Wear loose clothing in case the skin is sensitive after the appointment.
- Book waxing appointments to occur at least 48 hours prior to special occasions or vacations in case of an adverse reaction.

### DURING THE SERVICE

Ensuring your client's comfort during the waxing service is important to the overall impression you wish to create. Make the treatment room as comfortable and pleasant as possible. This will help increase the effectiveness of the waxing service.

- Air, heat and humidity all affect the temperament of wax, so try to keep the temperature of your room between 70° and 75° Fahrenheit (21°-24° Celsius) at all times.
- Do not wax under heating or air conditioning vents or in excessively drafty areas.
- Keep client warm. If necessary, use blankets or heated table pads. Warm skin is relaxed and more receptive to the waxing service.
- Keep the client relaxed and circulation flowing freely by always placing him or her lying down for waxing, even when working on the eyebrows and face.
- Wear protective gloves to protect you and your client from blood-borne pathogens, viruses or bacteria.

### AFTER THE SERVICE

Once you have completed the service, minimize the client's discomfort or any side-effects by informing him or her of the following guidelines. You may wish to provide these considerations in a printed format that clients can take home with them when they leave the skin care center.

- Do not apply makeup, other than loose powder, for two hours after facial waxing.

- Do not apply highly fragrant oils or lotions over the waxed areas.
- Avoid excessively hot showers, saunas or steam rooms for several hours after waxing.
- Do not use harsh or detergent soaps over waxed areas immediately following the service.
- Avoid exposing the waxed areas to sun or tanning beds for at least 24 hours following the service.
- Discontinue use of physical or chemical exfoliants for 24 hours following the service.
- Do not swim in lakes or oceans the same day of waxing services to avoid skin rashes and reactions.

## Concluding a Waxing Service

As with any esthetics procedure, be sure to perform final steps to complete the service:

- Offer to rebook next appointment.
- Disinfect your waxing service implements work area and facial bed.
- Recommend retail products for home care.
- Wash your hands with liquid antibacterial soap.
- Dispose of non-reusable materials used during the waxing treatment, replace used linens with fresh linens and arrange all products and implements in proper order.

Waxing is a highly popular and profitable service that can be the key to building a successful esthetics business. Many estheticians decide to specialize in waxing because it is quick and simple, and products are relatively inexpensive. In addition, its potential for cross-promotion with other facial services extends services into many related areas. In this chapter, you have learned about the basic types of hair removal, as well as procedures for safely and effectively performing waxing services on the face and body. As you become familiar with waxing tools, products and procedures, as well as proper techniques for safety and sanitation, you will be able to offer your clients a comfortable experience with few or no after-effects. This experience will help build your clients' confidence in your expertise, leading to referrals and repeat business. After all, the esthetics business—particularly waxing—depends largely on word-of-mouth.

## Threading



Threading is an ancient method of hair removal that is used widely in the Middle East. It is used to shape the eyebrows and remove hair from the upper lip and other facial areas. This technique utilizes a 100% cotton

thread that is twisted and rolled along the surface of the skin, entwining the hair in the thread and then lifting it from the follicle.

The results last approximately three to eight weeks—the same as with tweezing—and the side-effects can be less severe than with other hair removal methods. The skin may get a little red and sore, but only a slight pinch is felt as a relatively large area is covered each time.

## Sugaring

Sugaring is a hair removal technique that originated in Egypt. A paste made primarily of sugar is applied to the surface of the skin in a rolling motion. When removed, it takes the hair along with it. Sugaring can be used on all areas of the body including eyebrows, upper lip, under arms, legs, arms, stomach and the bikini line. Generally, sugaring hair removal lasts between four and six weeks depending on the level of hair growth. The skin may be red following the treatment, but this usually disappears within 24 hours. Sugar paste adheres only to the hair, not the skin, and is easily removed with water.

## Permanent Removal Methods

Permanent hair removal techniques are designed to damage the papilla of the hair, inhibiting the hair's ability to grow back. Permanent hair removal techniques may take several treatments to achieve the desired results, depending upon the stage of growth that the hair is in when it is treated. Permanent hair removal methods include electrolysis, laser hair removal and photo-epilation.

## Electrolysis

Electrolysis is a method of hair removal that requires the technician to insert a small needle into each hair follicle, at the angle of the follicle and alongside the hair, until it reaches the root. The needle conducts a short-wave electric or Galvanic Current that destroys the papilla and permanently prevents regrowth. An electrologist (person specializing in electrolysis) typically works on small areas at a time. Clients generally return for a series of treatments until most of the hair has been removed from the desired area. Proper training for any type of electrolysis is necessary. An improperly trained electrologist can cause irreparable damage, such as pitting of the skin, if the service is not performed correctly. Electrolysis treatments should not be performed on any client who is pregnant, has heart conditions or diabetes.

Electrolysis should also not be performed on any hair that grows from a mole.

There are three methods of electrolysis or hair removal that utilize electrical current:

1. Galvanic electrolysis, also called the multiple- needle method.
2. Thermolysis or the High Frequency/short- wave method.
3. Blend a combination of Galvanic and Thermolysis methods.

Although many hair removal techniques, such as electrolysis, have been FDA-approved (in the U. S.) as permanent hair removal methods, hair is only permanently removed when in the anagen stage. Therefore, permanent hair removal requires several treatments before the hair is permanently removed. It is best to categorize these treatments as “long-term” hair removal or “hair reduction” during the early stages.

### Galvanic Method

The Galvanic electrolysis method destroys the hair by decomposing the papilla. In Galvanic electrolysis, 12 to 14 needles, or probes, are inserted into individual follicles at a time. For this reason, Galvanic electrolysis is sometimes called the “multiple-needle” process. A low-level current passes into the needle and causes a chemical reaction in the cells of the papilla. The current is typically on for 30 seconds to 2.5 minutes.

### Thermolysis Method

The thermolysis or high frequency/short-wave

electrolysis method involves inserting a single needle (probe) into the follicles. The current travels to the papilla for less than a second, resulting in a coagulation of the cells that destroys the papilla. The hair is immediately tweezed from the follicle. Because the time and intensity of the current are controlled, preferably by an automatic timer, the client feels only a tiny “flash” of heat. Redness or a slight bump in the skin are normal reactions and disappear in two to three days. The wire used in short-wave electrolysis is substantially finer than the electrolysis probe, further reducing client discomfort.

### Blend Method

The blend method of electrolysis is a combination of Galvanic and short-wave current. A special instrument designed to combine Galvanic Current (for best results on resistant follicles) and High Frequency Current (for faster results) produce the blend. This method offers best results to clients with excessive or resistant hair growth.

### Laser Hair Removal

Laser hair removal treatments use wavelengths of light to penetrate and diminish or destroy hair bulbs. Depending on the local area regulations, this can be performed by licensed estheticians, medical professionals, or by technicians under a doctor’s supervision. Laser hair removal systems emit a beam of light that passes through the skin to the hair follicle. The hair absorbs the light and transforms it into heat energy, which destroys the hair bulb.

The laser method was discovered by chance when it was noted that birthmarks treated with certain types of lasers became permanently devoid of hair. Lasers are not for everyone; an absolute requirement is that one’s hair must be darker than the surrounding skin. Coarse, dark hair responds best to laser treatment. For some clients, this method produces permanent hair removal. For other clients, laser hair removal treatments simply slow down regrowth.

The benefit of laser is that it can treat hundreds of hair follicles simultaneously, generally making the process quicker than electrolysis.

Laser treatment works best on hair that is in the anagen, or growth, stage. Therefore, while one laser treatment may have long-lasting effects, repeat treatments are necessary for best results, to catch all of the hairs as they enter the anagen stage.

Certain clients are not good candidates for this type of hair removal procedure, including those with dark skin or those with white or gray hair.

The reason for this is the following: The concept behind laser hair removal is that different wave lengths (lasers produce colored lights) of laser pinpoint the pigment (melanin) of the hair and dark colors absorb more light. The heat from the laser inhibits the papillary bulb. Since the laser is drawn to areas of pigmentation, light hair lacking pigment, or dark skin with a lot of pigment makes it more difficult to pinpoint the individual hairs.

### **Photo-Epilation or Pulsed Light**

Photo-epilation or pulsed light uses a similar principle as lasers, but this type of light is not considered to be a laser light. An intense pulsed light beam creates a burst of energy used to destroy hair bulbs with minimal scarring. Both lasers and pulsed light are a form of light beam. The difference between the two is that a laser is a constant beam of light and the pulsed is not constant. Both methods carry the risk of scarring, but there is much less a chance of burning or scarring when using pulsed light since it is targeted at the skin in quick, short intervals. The benefit of this type of treatment is that large areas of the body such as the back or legs can be treated rapidly.

## **EYEBROW SHAPING**

Eyebrow shaping not only removes excess or unwanted hair from the eyebrow area; it is also an essential part of grooming. Well-shaped eyebrows can lift and open up eyes and project a rested, youthful and sophisticated appearance. For this reason, many women seek out a professional to create the most flattering eyebrow design.

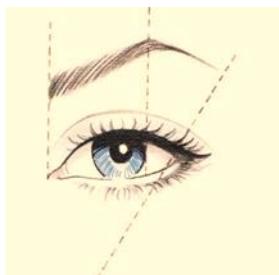
Consult with your client thoroughly before performing an eyebrow wax, because the shape you design is a matter of personal preference. Some clients prefer to follow the natural shape of the eyebrow, while others prefer a more dramatic, arched eyebrow. Fashion also plays a role here. Sometimes a full, natural eyebrow is the trend; other times fashion dictates a narrow, highly arched shape; and sometimes the trend falls somewhere in between.

To determine the best shape for the brow, hold the base of a comb or spatula against the corner of the nose, with the other end of the comb or spatula extending straight upward toward the eyebrow. This is where the brow should begin. Hold the comb or spatula so it extends from the corner of the nose to the outside corner of the eye and then across the eyebrow. This is where the brow should end.

The high point of the arch of the brow should be near the outside corner of the iris, if the client is looking straight ahead.

Just like a good haircut, the arch and shape of the eyebrows should be well blended and flow in a natural line. Remove the excess brow hair in an even fashion to avoid sharp angles or obvious thinner areas in the brow line. If the client has an uneven brow line, encourage her to allow the eyebrows in the thin area to grow back, so that you can help her achieve a smoother, well-blended, and more natural-looking line.

Keeping your client's preference in mind, there are certain design guidelines that will ensure satisfactory results. These guidelines include:



1. The space between the eyebrows should be equal to the width of the eye.
2. The inner edge of the eyebrow should start above the nostril. To establish that point, hold a pencil to the side of the nose straight up to the eyebrow.
3. To establish the length of the eyebrow, hold the pencil diagonally from the nostril and extend it to the outer corner of the eye. The eyebrow should not exceed this point.
4. To determine the highest part of the arch, use the pencil to connect the nostril to the outside edge of the iris.

Many professionals remove hair only from underneath and between the eyebrows. If your client's eyebrows are extremely thick or if they prefer a very thin eyebrow, you may also decide to remove the hair above the eyebrow. Remember that with waxing, hair becomes sparse over time, so if a client desires to use wax for a manicured eyebrow, they may not be able to have full eyebrows again.

If your client requests a pronounced arch, remove the hair in an upward direction from just inside the beginning of the eyebrow to the highest point of the arch. As you continue, slope gently downward toward the outer edge of the eyebrow. The points where you begin and end your arch and the degree of slope that you create will determine how pronounced the arch will be.

## Eyebrow Waxing Procedure



Eyebrow waxing can improve and shape the look of the entire face. A client's eyes can appear brighter and wider after an eyebrow wax. Since this procedure is quick and easy to perform, it is also a great income generator.

1. **Wash and sanitize hands.** Complete your client consultation and show your client to the skin care room. Be sure to discuss the desired eyebrow shape with your client.



2. **Drape client.** Settle the client onto his or her back on the facial bed or chair and protect hair with a headband. Check that your client is warm and comfortable.



<p><b>Prepare Skin</b></p> <p>3. <b>Assess the direction of the hair growth</b> carefully. If hair grows in several directions, always apply wax to each section in the direction of growth and remove each section in the opposite direction. Brush the eyebrows upward and trim any excessively long hair with scissors.</p>	
<p>4. <b>Apply antiseptic preparation or pre-wax solution</b> to remove all residue of makeup and moisturizer. <b>Lightly dust the area with cornstarch or powder</b> (if recommended by wax manufacturer) to remove any trace of oil or moisture.</p>	
<p><b>Apply the Wax</b></p> <p>5. <b>Obtain wax.</b> Dip a narrow spatula into the wax pot. Wipe the side, back and tip until a thin coat of wax remains on one side only.</p>	
<p>6. <b>Apply wax.</b> Holding the spatula firmly at a 45° angle, place the tip on the skin and let the wax run down the spatula. Then spread the wax as thinly as possible over the desired area. Remember to apply wax in the direction of the hair growth.</p>	

	
<p>7. <b>Discard the spatula.</b></p>	
<p><b>Remove Wax and Hair</b></p> <p>8. <b>Apply removal strip.</b> Taking a narrow strip of fabric, fold over an edge that you will use as a grip, and smooth the remaining portion over the wax. <b>Press and rub strip</b> a few times.</p>	
<p>9. <b>Pull the skin taut</b> with one hand, then with the other hand, <b>remove strip</b> quickly in the opposite direction of the hair growth. Try not to pull the fabric straight up. Instead, pull it as close to the skin as possible.</p>	

	
<p>10. <b>Apply pressure</b> to the area immediately to reduce momentary stinging sensation.</p>	
<p><b>Repeat</b></p> <p>11. <b>Repeat procedure</b> on new area as needed. Keeping the desired shape in mind, wax along the bottom of the eyebrow and to the inside corner of one eye. Allow client to check the eyebrow shape with the hand mirror at this point, and if satisfied, continue waxing on the other side.</p>	
<p><b>Clean and Protect the Skin</b></p> <p>12. <b>Remove any excess wax</b> with oil or other wax removal preparation after eyebrows have been shaped to client's satisfaction.</p>	

<p>Check the area and <b>remove stray hairs with tweezers.</b></p>	
<p>13. <b>Apply soothing gel</b> or medicated lotion to the entire waxed area, and then show client the results.</p>	

## Waxing Essentials

The types of wax that you will use and the waxing techniques that you choose depend upon the area of the body on which you are performing the waxing service. The next section focuses in greater detail on the products, implements, supplies, and equipment needed to perform waxing treatments.

### WAXING PRODUCTS

Product	Function
<p><b>Antiseptic preparation</b> (such as toner, astringent, witch hazel or specially formulated pre-wax lotion)</p>	<p>Sanitizes skin prior to service; removes buildup on the body from deodorants, body lotions and oils</p>
<p><b>Cornstarch or Powder</b></p>	<p>Buffers the skin from the wax and prevents skin from lifting; absorbs any moisture remaining on</p>

	the skin; applied prior to wax application
<b>Soothing Lotion</b>	Calms the skin after waxing
<b>Wax</b>	Removes unwanted hair
<b>Wax Remover</b>	Removes wax residue from the skin
<b>Hair Growth Retardant</b>	Slows the growth of hair after waxing; often in a liquid spray or lotion form

### Waxing Implements and Supplies

Implements and Supplies	Function
<b>Eyebrow brush and comb</b>	Shape and groom eyebrows
<b>Gloves</b>	Protect your hands and skin
<b>Headband or hairnet</b>	Holds hair out of the way
<b>Long-handled cotton swabs</b>	Applies product, such as soothing preparation, to small areas like eyebrows
<b>Muslin or Pellon® (fiber)</b>	Remove wax and hair; pre-cut into strips of various sizes: 3" x 6" [7.5 x 15 cm] is best for body and leg waxing; 1" x 3" [2.5 x 7.5 cm] for facial and eyebrows
<b>Plastic bags</b>	Hold discarded materials and garbage
<b>Small scissors</b>	Trim longer hair
<b>Sheets</b>	Protect facial bed; cover client

<b>Tissue</b>	Aids in application of products
<b>Tweezers</b>	Remove stray hairs and shape eyebrows
<b>Wooden application sticks/spatulas</b>	Applies the wax to skin; large and small sizes
*All metal implements should be placed in a germicidal soak when not in use.	



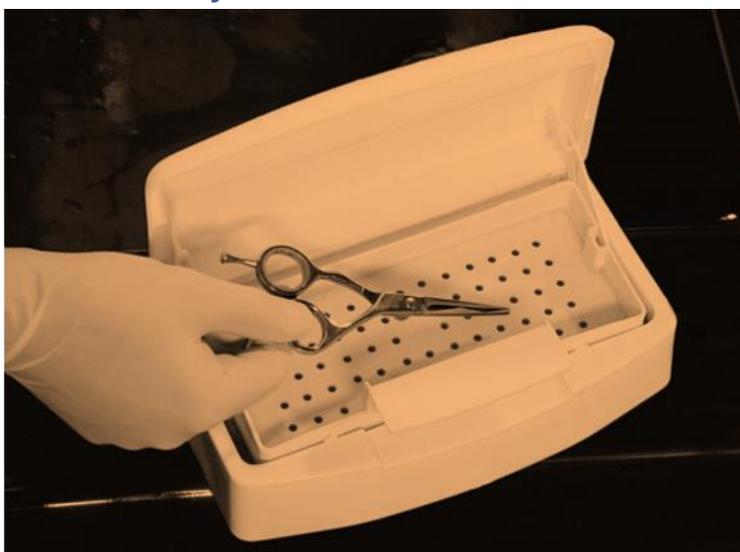
## Waxing Equipment

<b>Equipment</b>	<b>Function</b>
Hand-held mirror	Allows client to view results
Equipment cleaner	Removes wax, dirt and bacteria from the cart and other surfaces
Professional Cart	Holds all supplies and implements; can be moved to any location in the skin care center
Facial Chair or Bed	Holds client for comfort

Wax Warmer	Melts and holds wax
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Once a Professional Cart has been disinfected, cover the top of the metal cart you use for waxing with aluminum foil or paper liners designed to protect working surfaces—this will make cleanup easy and will maintain sanitary standards.

## Infection Control and Safety



Infection control and safety while performing hair removal services are essential to protect the health and well-being of you and your client. Safety and sanitation guidelines are often enforced by area regulatory agencies. They are put in place to prevent contamination and cross-contamination, as well as to maintain the sanitation of the hair removal procedure and environment.

Observe the following guidelines for safety and sanitation during all waxing procedures:

1. Carefully read and follow all manufacturers' instructions for products, implements, supplies and equipment.
2. Always test the temperature of heated wax on your forearm before applying to the client's skin.
3. Do not wax the eyelids, nipples or inside of the nose or ears.
4. Always perform a patch test prior to performing a service.
5. Never re-use wax or re-dip application spatulas.
6. Discard anything that cannot be disinfected after use.

7. Conduct a thorough client consultation prior to each service. If any skin condition, contraindication or situation causes you to doubt that it is safe to perform the service, decline to do so.
8. Clean and disinfect cart and wax pot, replace wax, change sheets and wash your hands before every client.

## Contraindications

Prior to waxing, you should review any possible contraindications that might suggest you avoid performing the service. Typically, these will be included on the Client Consultation Form. However, some contraindications, such as certain moles and warts, will become apparent only after working with the client and closely surveying the skin. These contraindications can be noted on the form at a later time, but be sure not to wax over these areas to prevent causing irritation or spreading viruses or bacteria to other areas. Some contraindications include the following:

### Skin Conditions

- Varicose veins
- Unusually pronounced moles or warts
- Cuts, abrasions, wounds, open sores
- Active Herpes
- Acne
- Skin diseases or disorders
- Sunburn
- Rashes
- Cysts or boils

If any of these conditions are present, do not perform the waxing service. It is important to be aware that Herpes, in particular, is highly contagious and you should never perform a waxing service on a client who has an active outbreak. In addition, skin diseases that present visible irritation on the surface of the skin should never be waxed.

The existence of the following health conditions may cause the client to bruise, swell or experience excessive pain during a waxing service. In addition, conditions such as diabetes impair the healing process.

### Health Conditions

- Diabetes
- Poor circulation
- Chemotherapy/radiation treatments
- High blood pressure
- Low pain threshold

- Lupus

Lupus is an autoimmune disease in which the body's immune system is impaired or begins to fight against itself. Symptoms include skin rashes, and can become as severe as nerve or brain dysfunctions. Typically, when on the face, Lupus is characterized by clearly defined, round red patches that have a butterfly appearance. However, in some cases, lesions or rashes occur on the head, neck, ears, scalp, arms, upper chest and back. Sun exposure aggravates the condition and should be avoided. Sun protection with a high SPF should be applied before going outdoors. Clients with Lupus should avoid waxing.

### Safety Precautions for Hot and Cold Waxing

- To prevent burns, always test the temperature of the heated wax before applying to the client's skin. Use a professional wax heater for warming wax. Never heat wax in a microwave or on a stove top. Wax can become overheated and burn the client's skin.
- Use caution so that the wax does not come in contact with the eyes.
- Do not apply wax over warts, moles, abrasions, or irritated or inflamed skin. Do not remove hair protruding from a mole, because the wax could cause trauma to the mole.
- The skin under the arms is sometimes very sensitive. If so, use cold wax.
- Redness and swelling sometimes occur after waxing sensitive skin. Apply an aloe gel and cool compresses to calm and soothe the skin.

### Client Consultation

One of the main purposes of a client consultation is to determine the presence of any contraindications for hair removal. Some medical conditions and medications may cause thinning of the skin or make the skin more vulnerable to injury. Waxing clients with these conditions could cause unnecessary inflammation or severe injuries to the skin. Clients should not have any waxing or hair removal performed anywhere on the body if one or more of the following is the case, without first obtaining written permission from their physician:

- Client is using or has used isotretinoin (Accutane) in the last six months.
- Client is taking blood-thinning medications.
- Client is taking drugs for autoimmune diseases, including lupus.
- Client is taking prednisone or steroids.
- Client has psoriasis, eczema, or other chronic skin diseases.
- Client has a sunburn.
- Client has pustules or papules in area to be waxed.
- Client has recently had cosmetic or reconstructive surgery within the previous three months.
- Client has recently had a laser skin treatment on the body.
- Client has severe varicose leg veins.

- Client has any other questionable medical condition.
- Facial waxing should not be performed on clients with any of the following conditions, without first obtaining permission from their physician:
  - Client has rosacea or very sensitive skin.
  - Client has a history of fever blisters or cold sores. (Waxing can cause a flare-up of this condition without medical pretreatment.)
  - Client has had a recent chemical peel using glycolic, alpha hydroxy, or salicylic acid, or other acid-based products.
  - Client has recently had microdermabrasion.
  - Client uses any exfoliating topical medication, including Retin-A, Renova, Tazorac, Differin, Azelex, or other medical peeling agent.
  - Client has recently had laser skin treatment or surgical peel.
  - Client uses hydroquinone for skin lightening.

Always conduct a complete client consultation before each hair removal service. Ask your client to fill out the portion of the Client Consultation Form that covers medical history and the present condition of his or her skin and health. The safety and health of your client is a key component in choosing a hair removal technique. Ask your client about desired needs and goals. Repeat back what you have heard until agreement is reached. Assess all health and medical conditions to be sure it is safe to perform the service. Make a recommendation for the appropriate hair removal service; explain the procedure thoroughly (including the products you will use); the time it will take; the cost; the expected results, and any possible side-effects.

Filling out a Client Consultation Form with a facial client is an ideal opportunity to promote hair removal services. You might suggest it to a client by saying, "Have you ever considered having your eyebrows waxed? I could create a really nice arch that would bring out your eyes. "

Estheticians sometimes require clients to sign a consent form, potentially releasing them from liability in the event of removing too much hair, burning, bruising or inflicting damage upon the skin.

# Pedicuring Technology Tools and Implements

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## Chapter Outline:

1. Introduction
2. Overview
3. Benefits of the Study of Pedicuring
4. Pedicure Tool Types
  - a. Equipment
  - b. Materials
  - c. Implements
  - d. Professional Pedicure Products
5. Choosing Pedicure Products
6. Foot-Care Service Menu
7. Client Interactions
  - a. Scheduling
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- d. Elderly Clients
- 8. Pedicure Pricing
- 9. Pedicure Massage
  - a. Reflexology
  - b. Ergonomics
- 10. Disinfection
  - a. Disinfection of Whirlpool Foot Spas and Air-Jet Basins
  - b. Disinfection of Pipe-less Foot Spas
  - c. Disinfection of Non-Whirlpool Foot Basins or Tubs
- 11. Conclusion

**Learning Objectives:**

After completing this chapter, you will be able to:

1. Identify and explain the equipment used when performing pedicures.
2. Identify and explain three materials used when performing pedicures.
3. Describe a callus softener and how it is best used.
4. Explain the differences between a basic and a spa pedicure.
5. Describe reflexology and its use in pedicuring.
6. Know why consistent cleaning and disinfection of pedicure baths must be performed.
7. Know and describe the steps involved in the proper cleaning and disinfecting of whirlpool foot spas and air-jet basins.
8. Demonstrate the proper procedures for a basic pedicure.
9. Demonstrate a foot and leg massage.

## Pedicuring Technology Tools and Implements

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## Introduction

A pedicure is a way to improve the appearance of the feet and the nails. The word pedicure is derived from the Latin words *pedis*, which means "of the foot", and *cura*, which means "care". It provides a similar service to a manicure. The word pedicure refers to superficial cosmetic treatment of the feet and toenails. A pedicure can help prevent nail diseases and nail disorders. They're extremely popular throughout the world, primarily among women.

## Overview

Often pedicures include a foot massage as well. People have been pedicuring their nails for more than 4,000 years. Though pedicures have been performed as foot care since ancient times and in the beauty industry for decades, they were relatively rare even as recently as the late 1980s. A pedicure is a cosmetic



service performed on the feet by a licensed cosmetologist or manicurist. Pedicures can include exfoliating the skin, reducing calluses and trimming, shaping, and polishing the toenails.

In the 1990s, with the development of the spa industry and new pampering equipment, techniques, and products, pedicures exploded onto service menus and became the fastest-growing service in the industry. Currently pedicures are a regular ritual in many clients' personal-care regimen. Pedicures are now considered a standard service performed in salons by cosmetologists and manicurist.

Pedicures are now a basic part of good foot care and hygiene and are particularly important for clients who are joggers, dancers, manicurist and cosmetologists—or for anyone who spends a lot of time standing on his or her feet. The information in this section will provide you with insight on the various tools and implements you will need to perform beautification and routine care on your clients' feet, toes, and toenails.

Pedicures are not merely manicures on the feet. While they are a similar basic service, they require additional precautions, a specific skill set, and more knowledge of chronic illnesses, disorders, and diseases. For all of these reasons, experts recommend that you become proficient in performing manicures before learning how to perform pedicures.

Once your clients experience the comfort, relaxation, and value of a great pedicure they will return for more. For these reasons, you would be wise to perfect your pedicure skills.

## Benefits of the Study of Pedicuring

Technicians should study and have a thorough understanding of pedicuring because:

- It will permit you to accomplish pedicure services safely and appropriately.
- It will allow you to add this much anticipated service to your service offerings.
- It is important to distinguish between the various pedicure tools and to know how they are properly used.

## Pedicure Tool Types

Pedicures consist of the customary manicure tools plus some that are specific to the pedicure service. In order to carry out pedicures safely, you must learn to work with the tools required for this service and to incorporate all safety, cleaning, and disinfection procedures as written in your state's regulations. As with manicures, the four types of nail technology tools that you will incorporate into your services include:

- Equipment
- Materials
- Implements
- Pedicure products



## Equipment

**Equipment** includes all permanent tools, excluding implements used to perform nail services. Some permanent equipment for performing pedicures is different from that used for manicures.

## Pedicure Station



Pedicure stations include a relaxing chair with an armrest and footrest for the client and an ergonomic chair for the cosmetologist or manicurist. Designs vary according to several factors, such as the amount of available space, the availability of water in the salon, and cost.

Some of the more luxurious Pedicure stations on the market today include message technology, steamers to keep the chair warm

while in use, cup holders, magazine racks, and attached pedicure tubs.

## Pedicure Stool and Footrest



In comparison with manicures, pedicures make sustaining a healthy posture more demanding for the service provider. The service provider's pedicuring stool is generally low to make it more comfortable and ergonomically precise for the pedicurist to work on the client's feet. Some stools come with a built-in footrest for the client, making it easier for the stylist to reach the client's feet. Interchangeably, a separate footrest can be used. Your chair must be comfortable and allow ergonomically correct positioning.

## Pedicure Foot Bath

Pedicure foot baths contrast in design from the simple stainless steel basin to an automatic whirlpool that warms and massages the client's feet. The soak bath is filled with exhilarating warm water and a product to soak the client's feet. The bath must be large enough to completely submerge both of the client's feet comfortably.



**Basin soak baths** can be large stainless steel bowls or attractive ceramic ones. Small transportable baths can be purchased from retail stores, beauty supply stores, or industry manufacturers. They must be manually filled and emptied for each client's service.

A phase above the portable water baths is the more **custom-made pedicure unit**, which has a removable foot bath and the technician's stool built in. Ergonomically, these units are better for the service provider than sitting on the floor to perform the service. A portable pedicure unit includes a place for the foot bath and a storage area for supplies.

The next phase up in cost and simplicity of use is the **portable foot basin** with built-in whirlpool-action. These baths add an extra touch to the service by gently massaging the feet with the action of the whirlpool. The bath is filled from the sink through attachable hoses. After the service, the bath is drained by pumping the water back into the sink through the attached hoses. They have built-in footrests, and the surrounding cabinet has areas for storage of pedicure supplies.



The **supreme pedicure foot bath** is the fully plumbed pedicure chair, at times denoted to as a throne-design chair. These units are not portable. They are permanently plumbed to both hot and cold water, as well as to a drain. Most units have a built-in massage feature in the chair and a warmer which adds to the relaxation of the client. Recently, many throne-type chairs with a self-cleaning and disinfection cycle have become available.

### CAUTION

No additive that is added to the water during a pedicure soak kills pathogens and replaces your obligation to **clean** and **disinfect** the equipment and implements after the pedicure. Any chemical that is strong enough to adequately kill pathogens is not safe for contact with skin. Disinfectants must never be placed in the foot bath with your client's feet. They can be harmful to the skin.

### Pedicure Carts



Pedicure carts are designed to keep supplies organized. There are numerous different designs existing that include a hard surface for positioning of your implements and in-service supplies, as well as drawers and shelves for storage of implements, supplies, and pedicure products. Some units include a space for storage of the foot bath. Most take up very little space and they make it much easier to keep the pedicure area organized.

## Electric Foot Mitts

These heated mitts, formed for the feet but comparable to electric manicure mitts, are aimed to add an extraordinary touch to a more-than-basic pedicure. Pedicures that include the use of heated mitts are a higher-cost service, or their use can be an add-on to a lower-cost service. Foot mitts are generally used after a foot massage, a conditioning lotion or a mask is applied to the feet, and then they are placed in a plastic wrap or cover. Last, the feet are placed inside the warm electric foot mitts.

The warmth provided by the mitts helps the conditioning agents of the mask penetrate more effectively, adds to the comfort of the service, and provides ultimate client relaxation.

## Terry Cloth Mitts

These washable mitts (available for both hands and feet) are placed on a client's feet after a penetrating conditioning product and a cover have been applied. Terry cloth mitts are routinely used over paraffin and a cover because they hold in the heat provided by the warmed paraffin to encourage the product's conditioning of the feet or hands.

## Paraffin Foot Bath



While numerous clients, salon and spa owners, and pedicurist favor other paraffin application methods, the customary method is to dip and re-dip the hands and feet three to four times into the larger paraffin bath. The paraffin coating covers the skin, sealing the surface of the skin which encourages deeper penetration of formerly applied lotions and masks, creating ideal benefits and results from the products. The paraffin bath also motivates circulation, and the deep heat helps to decrease inflammation and promote circulation to affected joints. Some unique health safeguards must be considered for pedicure clients who are

chronically ill. Do not provide the paraffin wax treatment to clients with lesions or abrasions, impaired foot or leg circulation, loss of feeling in their feet or legs, or other diabetes-related problems. The skin of elderly clients may be thinner and more sensitive to heat, so a pre-service wax-patch test must be performed to ensure the client will be comfortable having the treatment.



## Implements

### Toenail Clippers

**Toenail clippers** are bigger than fingernail clippers, with curved or straight jaws specifically designed for cutting toenails. When carrying out a pedicure, use only professional toenail clippers. The best clippers for toenails have jaws that are straight and come to a point. Those with blunt points are difficult to use in the small corners of highly curved nail plates. For your client's safety, only use high-quality implements made specifically for performing professional pedicures. They will last longer and make cutting toenails easier for you and safer for your clients.

## Curette



A **curette** is a small, scoop-shaped implement used for more proficient removal of debris from the nail folds, eponychium, and hyponychium areas. Curettes are best for use around the edges of the big toe nail. A double-ended curette, which has a 0.06 inch (1.5 mm) diameter on one end and a 0.1 inch (2.5 mm) diameter on the other, is recommended. Some are made with a small hole, making the curette easier to clean after it has been used.

Curettes have need of gentle and careful maneuvers to prevent damage to the skin in the nail folds. Never use curettes to cut out tissue or debris that is adhering to living tissues. Cosmetologists must never use curettes with sharp edges because doing so can result in serious injury. Only those with dull or rounded edges are safe and appropriate for use by cosmetologists.

## Nail Rasp

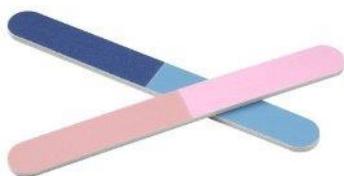


A **nail rasp** is a metal implement with a grooved edge used for filing and smoothing the edges of the nail plate. It is designed to file in one direction. This implement has a filing surface of about 1/3inch (3.2 mm) wide and about 3/4-inch (19 mm) long attached to a straight or angled metal handle. The angled file is recommended because it is easier to control under the free edge of the nail.

The file is placed under the nail, angling from the center of the nail out past the side free edge, and then gently pulled toward the center to file free edges that might grow into the tissues, potentially causing an ingrown nail. The filing process may be repeated to make sure there are no rough edges remaining along

the free edge. As you become proficient in the use of a nail rasp you will find it to be an invaluable and time-saving implement. Properly used, the nail rasp will add the professional finishing touch required in the care of the toenails. Take special care with this tool and never use it on the top of the nail or past the hyponychium area of the side of the free edge because it can damage the skin and cause infections. Never use it on nails that are already ingrown; refer clients with ingrown toenails to a podiatrist.

## Pedicure Nail File



For toenails, a **medium grit file** will work best for shaping, and a fine grit file will work best for finishing and sealing the edges. Some cosmetologists use a metal file on toenails. Check with your State Board to find out whether a metal file is legal in your state. Metal files need to be cleaned and disinfected after each use.

## Foot File



A **foot file**, also known as paddle, is a large, abrasive file used to smooth and reduce thicker areas of callus. Foot files come in many different grits and shapes. All grit files fall under the category of a single use item and must be disposed after one use.

Many reasonably priced for single use in



foot paddles are available for purchase in bulk pedicures.

**CAUTION**

It is illegal for cosmetologists or manicurist to cut or dramatically reduce calluses on clients unless the service provider is working as an assistant under the direct supervision of a physician or podiatrist. Cutting falls under the category of medical treatment and is not a cosmetic service. For manicurist, cutting is considered outside the scope of practice and will be determined so in lawsuits. The service technician may have to explain this truth to some clients who are accustomed to these illegal activities in other salons. Simply say, "I'm sorry, but cutting is a medical treatment and we are not allowed to use blades for that reason. We have excellent products and procedures to reduce calluses without dangerously cutting your skin."

## Nipper



A nipper is an implement used in manicures and pedicures to trim tags of dead skin. Because of the many precautions in performing pedicures, cosmetologists must take great care to avoid cutting, tearing, or ripping living tissue with this implement. Do not use nippers on the feet of clients who have diabetes because the risk of infection, amputation, and even death from accidental injury is great. Also, avoid using nippers on clients with psoriasis since injury to the toenail unit can create new psoriasis lesions where the damage occurs.

### **CAUTION**

It is especially dangerous to cut into and damage the skin on the feet of immune-suppressed clients because the healing of their wounds is a slow, sometimes impossible, process. Do not trim cuticles, use metal pushers, or use sharp implements on clients who have any chronic illness. Even a break in the skin that is so tiny it cannot be seen can cause infection, amputation, and even death.

## Materials

### Toe Separators

Toe separators are made of foam rubber or cotton and are used to keep toes apart while polishing the nails. Toe separators are important for performing a quality pedicure. Since toe separators cannot be

cleaned and disinfected, a new set must be used on each client and then thrown away or given to the client for at-home use.

## Pedicure Slippers

Single-use paper or foam slippers are provided for those clients who have not worn open-toed shoes and want to avoid smudging their newly applied toenail polish. They are specially designed not to touch the nails while being worn.

## Gloves

Service providers must wear gloves while performing pedicures because repeated exposure to pedicure water can cause extreme dryness and cracking on the hands. Gloves also protect pedicurist from exposure to pathogens that may be present on the feet or in the water. A new set of gloves is worn for each pedicure and then thrown away. If the client or service technician is allergic to latex, nitrile gloves should be worn.

## Professional Pedicure Products

- Soaks
- Pedicure lotions and creams
- Scrubs
- Callus softeners
- Masks

## Foot Soaks

Foot soaks are products containing gentle soaps, moisturizers, and other additives that are used in the pedicure bath to cleanse and soften the skin. A good foot soak product is gentle but effective and thoroughly cleans and deodorizes the feet. It is better to use professionally formulated products because they are designed to properly cleanse without being overly harsh to the skin. Other ingredients may include moisturizing oils with aromatherapy qualities. The soak sets the stage for the rest of the pedicure, so be sure to use a high-quality product to start your pedicure service on a good note.

## Exfoliating Scrubs

These gritty lotions are massaged on the foot and leg to remove dry, flaky skin and reduce calluses. They leave the skin feeling smoother and moisturized. Exfoliating scrubs are usually water-based lotions that contain an abrasive as the exfoliating agent. Sea sand, ground apricot kernels, pumice, quartz crystals, jojoba beads, and polypropylene beads are all exfoliating agents that may be found in pedicure scrubs. Scrubs also contain moisturizers which help to condition the skin. Cosmetologists must wear gloves when using these products as repeated use will irritate the skin on the hands.

Avoid excessively abrasive scrubs since they may leave tiny, invisible scratches on clients' skin that can be portals of entry for pathogenic microorganisms. Portals of entry are openings in the skin caused by damage during a professional service.

## Masks

Masks are concentrated treatment products often composed of mineral clays, moisturizing agents, skin softeners, aromatherapy oils, extracts, and other beneficial ingredients to cleanse, exfoliate, tighten, tone, hydrate, and nourish the skin. They are highly valued by clients. Masks are applied to the skin and left in place for five to ten minutes to allow penetration of beneficial ingredients. Menthol, mint, cucumber, and other ingredients are very popular in foot-care masks.

## Foot Lotions or Creams

Lotions and creams are important to condition and moisturize the skin of the legs and feet, to soften calluses, and to provide slip for massage. They are also formulated as home-care products for maintenance of the service and improvement of the skin. Cosmetologists who work in a podiatry or medical office will be introduced to treatment-level lotions and creams that are associated with the improvement of medical conditions of the feet. Whether you work in a salon, spa, or medical office, get to know your product line well in order to recommend products to aid the client in maintaining the pedicure benefits.

## Callus Softeners

Professional strength callus softeners are products designed to soften and smooth thickened tissue (calluses). They are applied directly to the client's heels and over pressure-point calluses. They are left on for a short period of time, according to the manufacturer's directions. After the product softens the callus, it is more easily reduced and smoothed with files or paddles. L03

### **CAUTION**

Cuticle removers and callus softeners are potentially hazardous to the eyes. For that reason, safety glasses should be worn whenever using or pouring them. Be sure to wear gloves during their use. Used improperly, these products may cause severe irritation to the cosmetologist's eyes, hands, and skin. Used correctly, they are safe and effective.

## Choosing Pedicure Products

Many pedicure products are available, but the most synergistic ones (those designed to work well together) are developed systems or lines.

Podiatrists and physicians know that at-risk patients are having, or are interested in having, pedicures. Knowing that these patients are extremely susceptible to infection and that they have poor healing capabilities, many doctors are hiring or referring patients to specially trained pedicure professionals.

After licensing is achieved, certification courses are usually considered continuing education. They are not licenses.

These products provide the fastest and easiest way to develop an optimal pedicure service. They are available from many manufacturers of professional nail and foot products. Before choosing any one line, check out a variety of product lines, compare them, and then decide for yourself which line is best for your clients.

Always check the quality of the company's educational support and its commitment to the cosmetologists using its products. Find other cosmetologists who use the products and discuss the quality of the company's customer service and its shipping competence, and listen closely to their experiences. Look at your research and make the decision based on which company best meets your and your clients' needs.

When using a manufacturer's product line, follow its recommendations and suggested procedures, because these methods have been tested and found to enhance the effectiveness of the product line.

## Foot-Care Service Menu

Tailor your foot-care menu of services to meet the lifestyle and requests of your clientele. For example, younger clients will probably love nail art, while the older clients are more likely to enjoy paraffin wax treatments.

Shorter services are great menu expanders. Not all clients will want or need a full pedicure. Some clients may only want or need a professional nail trimming. Others may want a pampering massage appointment between their full pedicure services to relieve tension and stress. Some may only want a polish change. List these additional services on your menu with your full pedicures to provide options for your clients.

## Client Interactions

During the procedure, discuss with your client the products that are needed to maintain the pedicure between salon visits. However, only talk to clients who wish to have a discussion. Clients who want to drift off should be allowed the peace and tranquility they are seeking. If this is the case, discuss your product recommendations during polishing or when closing the service. Remember to keep your conversations professional; never discuss personal issues.

Pedicure clients are often in the salon to relax and be pampered. Offer them refreshment and suggest they sit back and relax. Then smile and start the service. There should be no distractions, such as phone calls, others talking with the service provider, and so on, for you or the client during the pedicure. In addition to the foot care provided during a pedicure, clients purchase this service because of the relaxation it provides. Distractions prevent this from happening.

To grow your clientele, you must encourage your clients to schedule regular, monthly pedicures. The accepted time between pedicure appointments is generally four weeks because of the slow growth of the toenails. Mention that their feet are in constant use and need routine maintenance. Remind them that proper foot care, through pedicuring, improves both personal appearance and basic foot comfort.

### ***Service Tip***

When you are performing a pedicure, the foot should be grasped between the thumb and fingers at the mid-tarsal area. The thumb is on the bottom of the foot, while the fingers are wrapped around the dorsal side of the foot. This positioning accomplishes two things:

- It locks the foot into place, allowing the cosmetologist control of its movements.
- A gentle though firm grip has a calming effect on the client and overcomes apprehension in those who dislike their feet being touched.

Never hold the foot lightly or loosely as it can cause a ticklish sensation in many people. Most clients will accept and tolerate a firm, comfortable grip on the foot even if they are ticklish.

### **Scheduling**

When scheduling a client for a pedicure over the telephone, caution female clients not to shave their legs within the forty-eight hours before the pedicure. Why? Shaving the legs increases the presence of tiny microscopic abrasions, and shaving within forty-eight hours before a pedicure may allow portals of entry for pathogenic microbes, increasing the risk of stinging, irritation, or infection. This is an important infection control policy.

To help uphold the policy, post a tasteful sign with the same message in the pedicure area, and place it on your service menu and Web site where your pedicures are listed. Then, before you place your client's feet in the pedicure soak, ask her when she last shaved her legs—if it was within the last forty-eight hours, reschedule the appointment. It is the responsible thing to do. Additionally, when clients are scheduling a pedicure appointment, suggest they wear open-toed shoes or sandals so that polish will not be ruined following the service. Many spas provide single-use pedicure slippers for those who forget to wear open-toed sandals, but a reminder during scheduling is usually appreciated. After all, the appearance of their polish is a priority to most pedicure clients.

It is important to schedule appointments for the proper length of time, and it is important for the technicians to stay on time. Clients dislike waiting, so you should learn the time that it takes to perform

individual steps (toenail shortening, cuticle removal, massage, callus reduction) as assigned on the service menu. Then, practice to meet those times. Knowing where you should be in a service at a specific time also helps you start your next client on time. For example, you must be polishing forty-five to fifty minutes after beginning a one-hour pedicure in order to be on time.

The basic pedicure in most salons does not include a leg massage; a spa pedicure usually does. Pedicures that include leg massages are longer, more upscale and more expensive services. Therefore, they require and deserve additional time. The basic pedicure may be forty-five-minutes, but the spa pedicure, with an added mask and leg massage—perhaps even a paraffin wax service—will be much longer, possibly even half an hour longer, depending upon the additional services and how luxurious they might be. Do not cram too much into a pedicure or the experience will not be relaxing for your client or enjoyable for you as a service provider. Rushing through a pedicure may even cause you backaches.

If you time your services appropriately, clients will believe they are receiving better services. As a result, they will be willing to pay what you deserve to receive.

Sometimes when a client books a standard pedicure, his or her feet will be in bad condition requiring more time than was scheduled. When you are completing the client consultation and evaluating the client's feet, you will know quite quickly if this is the case. You must tell this client that you will do the best you can in the time allotted, but he or she must schedule another pedicure very soon in order to get the feet into a condition the client will enjoy. Since clients generally know when they have problem feet, they probably will not be surprised at the need for another appointment and further work. Do not work beyond your scheduled time.

By sticking to the appointment time allotted, you will not only be preserving your schedule, you will also be protecting the client. If the client's feet are in bad shape and you work as long as is necessary to get them in optimal condition in only one service, they may become irritated or painful. The best option is to sell the client home-care products to improve the condition of the feet and schedule another service within one or two weeks.

## Series Pedicures

Some improvements in the feet require more than one appointment; this is referred to as a series. A situation that may require a series of appointments is callus reduction. When a client comes in with heavy calluses never use a blade. Not only are blades dangerous and a potential cause of infection, but their use is against the law. Using a blade also stimulates heavier growth of calluses as the skin attempts to grow back quickly to protect the damaged skin.

To reduce calluses during a pedicure and to maintain their reduction, perform a safe amount of exfoliation with a scrub. Apply the new, more effective callus reduction products on them and use the foot paddle to remove a safe amount of callus. Explain to the client the negatives regarding rushed removal of calluses. Explain that weekly callus reduction appointments for four to six weeks will lower

the calluses and that after that series; the client can receive maintenance pedicures less frequently, about once a month.

During the series appointments, a full pedicure is not performed between the monthly pedicures; the callus reduction appointment is merely a weekly soak, application of the reduction product for a set time (usually five minutes), reasonable callus reduction, and application of a lotion. It takes about half an hour and should be a less expensive service than an entire pedicure.

At the four-week appointment, a full pedicure is performed with treatments following again. Some clients will require more than the six weeks for a callus reduction series, and this should be explained when the series is suggested. The client can also be sold a glycolic or lactic acid hand and body lotion to use on the feet every other day, and daily use of a lotion containing DMU (Dimethyl urea hardeners) should be recommended to soften and prevent the scaly condition from returning. A foot paddle can also be sold to the client for use after showers between treatment appointments. Gloves must be worn during these services.

Another condition that can require weekly treatment is scaly feet. First, however, the client must be sent to a podiatrist to define whether the scaly condition is caused by a fungus. If no fungus is present, the client can return weekly for three to six weeks for a foot exfoliation treatment that includes scrubs and a callus reduction treatment, such as a mask. Remember that masks should be applied all over the feet for one to three minutes, but no longer. These treatments are designed so that the client will have beautiful feet when the series is finished. Home-care products must be recommended to maintain the improved condition.

Most salons will have a protocol to follow when finishing services. Follow them closely for two reasons. First, a routine keeps things moving in the salon, and second, clients get used to the closing protocol and know what to expect. If your salon does not have a post-service protocol, or if you work alone, establish one. Clients are more comfortable with a familiar routine.

## Spa Pedicure

The Basic Pedicure is the basis for all other pedicure services. For example, in the basic pedicure, the massage is performed on the foot only, while in the upgrade to a spa pedicure, the massage is performed on the foot and the lower leg (to the knee).

Another spa pedicure upgrade is the use of a mask on the foot and/or leg. The mask is applied, covered, and allowed to set while the client relaxes and the mask's effectiveness increases. A further upgrade would be the incorporation of special products such as aromatherapy lotions, oils, paraffin, and other specialty products.

### ***Business Tip***

You should charge extra for add-on services such as paraffin wax treatments and nail art. Services have dollar value—especially when you consider the time, product expense, skill level, and equipment used. Always be up front about additional service costs, and if a client decides to indulge in one, charge for it.

## Elderly Clients

Older people need regular, year-round foot care even more than younger people. Many elderly people cannot reach their feet, cannot see them, or cannot squeeze the nail clippers to trim their own nails. They need continual help in their foot-care maintenance, especially since it can become a health issue. The cosmetologist who offers pedicure services for this segment of the population will be doing these individuals a great service and will find plenty of willing clients in need of their services.

Many of these clients have health issues that require exceptionally gentle care. Never cut their tissues or push back the eponychium as even a microscopic opening, or microtrauma, can be fatal for these clients. Discuss health issues with them; do not perform pedicures on diabetics or on people with circulatory diseases without their physician's permission. Seek training in how to work with these clients, so you will know how to work safely on them.

## Pedicure Pricing

Most salons and spas will probably have a price list for services before you join the staff, but you may at some time find yourself in a position to price your own services. In this case, determine the price of your basic pedicure first, and then set your prices for more upscale and luxurious pedicures by increasing the base price of the pedicure according to the value of the added treatments, products, and extra time.

Another great way to upgrade your pedicure service and price is through nail art. Many clients enjoy adding a little something special to their normal pedicure polish, especially if their work prohibits them from wearing polish or art on their hands. It is easy to get your clients addicted to toenail art by giving the first example at no cost. Once they have it and their friends compliment them, they will want it every time, and you will quickly see an increase in revenue with your existing clientele (Figure 26–15). Toenail art is especially popular in sandal season and for formal occasions when women often wear open footwear.

Many salons and spas have found that manicure and pedicure packages are well received by their clients and work well for the staff. Manicures and pedicures together are like salt and pepper—although they are different, they go well together.

One great way to sell these packages is to develop theme services for holidays and special events, such as Christmas, Valentine's Day, Mother's Day, prom, weddings, and birthday packages; market them, and you will see your clientele grow.

## Pedicure Massage



Post-visit client salon surveys reveal that massage is the most enjoyed aspect of any nail service. Because this is especially true for pedicures, you should spend time developing a technique that you will enjoy giving and that your clients will enjoy receiving.

The definition of massage, according to the Merriam-Webster Dictionary, is “a method of manipulation of the body by rubbing, pinching, kneading, and tapping.” General body massage sometimes has a therapeutic purpose and sometimes focuses on relaxation. However, massage given during manicures and pedicures definitely focuses on relaxation.

The art of massage has a rich and long history. There are many types of massage, and individuals usually develop their own special styles and techniques. No matter what techniques you use, perfect them so foot and leg massage becomes second nature to you. During this part of the pedicure, be keenly aware of your client’s health, meet any precautionary requirements, and offer a massage that relaxes the client but is not harmful to him or her.

The foot and leg massage is similar to the hand and arm massage that follows a manicure. The massage technique that is used most is effleurage. This technique is even more important for pedicures than manicures because many clients have circulatory issues that may prevent you from using other massage techniques. During consultation, you must ask clients questions concerning their health. If clients have a circulatory disease, high blood pressure, or other chronic diseases that affect their legs or feet, you must get permission from their physician before providing a full spa pedicure massage.

Most of us enjoy being touched, and the art of massage takes a pedicure to a higher level. Many people think foot massage is more special than massage on any other part of the body. Foot massage induces a high degree of relaxation and stimulates blood flow. Be aware of the areas of the feet and legs where the client most enjoys massage, and put a greater emphasis in these areas.

Every cosmetologist has his or her own massage style and technique. No matter what you define as yours, perfect it so that it becomes second nature to you.

## Ergonomics

Pedicures can pose a threat to the health and well-being of cosmetologists who perform them. If technicians are careless about protecting themselves through proper ergonomics, they can develop serious and painful back conditions.

Pay attention to your body's positioning and make sure you are working ergonomically. Always sit in a comfortable position, relaxed and unstrained, to reduce the risk of injury to your back, shoulders, arms, wrists, and hands. For example, avoid leaning forward or stretching to reach your client's feet. Take a minute to stretch before and after each pedicure to keep your body limber, in-line, and more resistant to injury.

Although it is important to give your client the best possible service, it is also important to keep yourself healthy during the process and to avoid injuries caused by strain or repeated motion.

## Disinfection

Disinfection of the pedicure bath has been discussed and sensationalized in the media—and for good reason. There are specific criteria and steps that must be followed exactly to ensure proper disinfection and infection control. Improper, rushed, or careless cleaning of the pedicure bath may lead to health and safety concerns for salon clients. The salon and the individual technician bear the responsibility for ensuring that proper disinfection occurs and that proper procedures are followed.

The following cleaning and disinfecting procedures are recommended for all types of pedicure equipment by the Nail Manufacturer's Council (NMC), a group of nail-care company representatives, and the International Nail Technicians Association (INTO), a group of professional nail technicians:

- whirlpool units
- pipe-less and all non-whirlpool basins
- bowls
- air-jet basins
- sinks
- tubs

In addition, salons must always use an EPA-registered hospital disinfectant that the label claims is a broad spectrum bactericide, virucide, and fungicide. For accountability purposes, most states require salons to record the time and date of each disinfecting procedure in a pedicure or a disinfection log.

Salon teams should incorporate the disinfection procedures on the following pages, into their regular cleaning and disinfecting schedules. These procedures should be displayed in employee areas. Always check your state regulations concerning the required disinfection protocol.

### WEB RESOURCES

For more information concerning disinfection and other important topics pertaining to nails, go to <http://www.probeauty.org/research>. This site contains many informational brochures, relevant to manicuring and pedicuring. The brochures which are published in several languages, including Vietnamese and Spanish, are written by the leading scientists and technical experts in the industry, and are reviewed by other industry leaders before being published.

## Disinfection of Whirlpool Foot Spas and Air-Jet Basins

### After Every Client:

1. Drain all water from the basin.
2. Scrub all visible residue from the inside walls of the basin with a brush and liquid soap and water. Use a clean and disinfected brush with a handle. Brushes must be cleaned and disinfected after each use.
3. Rinse the basin with clean water.
4. Refill the basin with clean water and circulate the correct amount (according to the mixing instructions on the label) of the EPA-registered hospital disinfectant through the basin for ten minutes.
5. Drain, rinse, and wipe the basin dry with a clean paper towel.

### At the End of Every Day:

1. Remove the screen and any other removable parts. (A screwdriver may be necessary.)
2. Clean the screen and other removable parts and the area behind these with a brush and liquid soap and water to remove all visible residues. Replace the properly cleaned screen and other removable parts.
3. Fill the basin with warm water and chelating detergent (a detergent designed for use in hard water), and circulate the chelating detergent through the system for five to ten minutes (following the manufacturer's instructions). If excessive foaming occurs, discontinue circulation and let soak for the remainder of the time, as instructed.
4. Drain the soapy solution and rinse the basin.
5. Refill the basin with clean water and circulate the correct amount (according to the mixing instructions on the label) of the EPA-registered hospital disinfectant through the basin for ten minutes.

6. Drain, rinse, and wipe the basin dry with a clean paper towel.
7. Allow the basin to dry completely.

#### At Least Once Each Week:

1. Drain all water from the basin.
2. Remove the screen and any other removable parts. (A screwdriver may be necessary.)
3. Clean the screen and other removable parts and the area behind these with a brush and liquid soap and water to remove all visible residues. Replace the properly cleaned screen and other removable parts.
4. Scrub all visible residue from the inside walls of the basin with a brush and liquid soap and water. Use a clean and disinfected brush with a handle. Brushes must be cleaned and disinfected after each use.
5. Fill the basin with clean water and circulate the correct amount (according to the mixing instructions on the label) of the EPA-registered hospital disinfectant through the basin.
6. Do not drain the disinfectant solution. Instead, turn the unit off and leave the disinfecting solution in the unit overnight.
7. In the morning, drain and rinse.
8. Refill the basin with clean water and flush the system.

### Disinfection of Pipe-less Foot Spas

This process is for units with footplates, impellers, impeller assemblies, and propellers.

#### After Every Client:

1. Drain all water from the basin.
2. Remove impeller, footplate, and any other removable components according to the manufacturer's instructions.
3. Thoroughly scrub impeller, footplate, and/or other components and the areas behind each with a liquid soap and a clean, disinfected brush to remove all visible residues. Then reinsert impeller, footplate, and/or other components.
4. Refill the basin with water and circulate the correct amount (according to the mixing instructions on the label) of the EPA-registered hospital disinfectant through the basin for ten minutes.
5. Drain, rinse, and wipe the basin dry with a clean paper towel.

#### At the End of Every Day:

1. Fill the basin with warm water and chelating detergent, and circulate the chelating detergent through the system for five to ten minutes (following manufacturer's instructions). If excessive foaming occurs, discontinue circulation and let soak for the remainder of the ten minutes.
2. Drain the soapy solution and rinse the basin.

3. Refill the basin with clean water and circulate the correct amount (according to the mixing instructions on the label) of the EPA-registered hospital disinfectant through the basin for ten minutes.
4. Drain, rinse, and wipe the basin dry with a clean paper towel.

#### At Least Once Each Week:

1. Drain all water from the basin.
2. Remove impeller, footplate, and any other removable components according to the manufacturer's instructions.
3. Thoroughly scrub impeller, footplate, and/or other components and the areas behind each with a liquid soap and a clean, disinfected brush to remove all visible residues, and then reinsert impeller, footplate, and/or other components.
4. Refill the basin with water and circulate the correct amount (according to the mixing instructions on the label) of the EPA-registered hospital disinfectant through the basin for ten minutes.
5. Do not drain the disinfectant solution. Instead, turn the unit off and leave the disinfecting solution in the unit overnight.
6. In the morning, drain and rinse.
7. Refill the basin with clean water and flush the system.

## Disinfection of Non-Whirlpool Foot Basins or Tubs

This includes basins, tubs, foot baths, sinks, and bowls—all nonelectrical equipment that holds water for a client's feet during a pedicure service.

#### After Every Client:

1. Drain all water from the foot basin or tub.
2. Clean all inside surfaces of the foot basin or tub with a clean, disinfected brush and liquid soap and water to remove all visible residues.
3. Rinse the basin or tub with clean water.
4. Refill the basin with clean water and the correct amount (according to the mixing instructions on the label) of the EPA-registered hospital disinfectant. Leave this disinfecting solution in the basin for ten minutes.
5. Drain, rinse, and wipe the basin dry with a clean paper towel.

#### At the End of Every Day:

1. Drain all water from the foot basin or tub.
2. Clean all inside surfaces of the foot basin or tub with a brush and liquid soap and water to remove all visible residues.

3. Fill the basin or tub with water and the correct amount (according to the mixing instructions on the label) of the EPA-registered hospital disinfectant. Leave this disinfecting solution in the basin for ten minutes.
4. Drain, rinse, and wipe the basin dry with a clean paper towel.

## Conclusion

Pedicures have become a part of the American lifestyle to the extent that many people get pedicures more often than they have their hair cut. These clients are as choosy about their pedicure as they are about other salon services. As with most beauty procedures, a pedicure is a service that must be practiced and perfected. You must continually search for education and new ideas to keep up with the changes.

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