



Fangotherapy

Chapter Outline

Fangotherapy in Europe

Fangotherapy in the United States

Types of Products Used in Fangotherapy

Clay

Mud

Peat

General Treatment Considerations

Contraindicated Individuals

Broken or Inflamed Skin

Fango Temperature

Mixing and Storing Fango Products

Preventing Dry Out

The Full-Body Fango Cocoon

The Fango Back Treatment Procedure

Session Start

Step 1: Steam the Back with Hot, Moist Towels

Step 2: Cleanse the Back

Step 3: Exfoliate the Back

Step 4: Massage the Back

Step 5: Application of Warm Fango

Step 6: Process—Massage the Legs and Feet

Step 7: Remove the Fango

Step 8: Application of a Finishing Product

Session End

The Fango Scalp and Neck Treatment Procedure

Session Start

Step 1: Steam the Head and Face

Step 2: Massage the Neck

Step 3: Massage the Scalp

Step 4: Application of Warm Fango to the Head

Step 5: Process—Massage the Feet and the Hands

Step 6: Remove the Fango from the Hair

Step 7: Face Massage

Session End

Fango Applications for Musculoskeletal Injury and Disorder

Acute Conditions

Subacute Conditions

Chronic Conditions



SPA FUSION
INTEGRATION OF SKILLS

STUDY TIP: Read and Learn

GOOD TO KNOW: The American Pain Society

CHAPTER WRAP-UP

Key Terms

Clay: A variable group of fine-grained natural materials that is usually “plastic” when moist and is mainly mineral in composition.

Emulsion: A mixture of two or more liquids in which one is present as microscopic droplets distributed throughout the other.

Fango: The Italian word for mud; the term is used loosely to describe products including mud, peat, and clay.

Moor mud: A low-moor peat from the Neydharting Moor in Austria that is well known for its anti-inflammatory effects. It is regularly mined and shipped to the United States for spa treatments.

Mud: Soft, wet earth that is mainly mineral in composition (derived from rock) with some percentage of organic matter (matter derived from plant breakdown).

Peat: Partially carbonized organic tissue formed by decomposition in water of various plants but mainly mosses of the genus *Sphagnum*.

Sphagnum: A type of moss that grows only in wet acid areas where the remains of the moss are compacted over time (sometimes with other plants) to form peat.

Sulfur: A chemical element that is an important constituent of many proteins and is often found in thermal pools and in some therapeutic muds. Sulfur is believed to reduce oxidative stress on the body and is used to treat arthritis, sore muscles, skin diseases, and other conditions.



Fangotherapy is the use of **mud, peat, and clay** for healing purposes (Fig. 11-1). The word *fango* is the Italian word for mud, so, strictly speaking, peat and clay should not be labeled as fango treatments. However, most spas use the term *fango* loosely, so to avoid confusion, the more general meaning of the word is adopted here.

Each of these materials (mud, clay, and peat) has its own special properties, but in general, they hold heat and are useful as a thermal application for chronic conditions. They also stimulate local circulation to the skin, support the natural detoxification mechanisms of the body, and help the body to relax. Some types of fango have anti-inflammatory and pain-relieving properties that make them useful for soft tissue injury. The sensation of being covered in thick, warm mud is a unique experience for clients, so services featuring fango are a

regular and popular item on spa menus. This chapter aims to briefly describe the classic use of fango, identify different type of fango products, and build on the skills learned in previous chapters. New treatments are described in step-by-step detail, but services such as the full-body fango cocoon assume that the reader has achieved proficiency with the treatments outlined in earlier chapters. This chapter also introduces the use of fango for the different stages of inflammation in the healing process. Review the sample fangotherapy treatments at the back of this book for inspiration when you design your spa menu.

Fangotherapy in Europe

Many early European spas originated around thermal areas with mineral hot springs. The mud around these hot springs was used for its therapeutic mineral content. It was not uncommon for mineral springs to hold religious



FIGURE 11-1 Clay, mud, and peat. (A) Kaolin clay. (B) Sedona clay. (C) Dead Sea mud. (D) Marine mud. (E) Peat.

significance for the local people, so bathing in the springs or using the mud from the area was believed to give healing on both a spiritual and physical level.¹ Over time, research has shown that hot spring mud, and the microorganisms that it contains, has healing properties that are valuable for the treatment of a wide range of conditions.

As mentioned in Chapter 1, the Italian towns of Abano, Montegrotto, Galzignano, and Battaglia are famous for their thermal baths, which have a long history of use. Over the centuries, people have come to the area for the healing properties of the thermal fango called Euganean Hills mud that is found at the spas. Today, more than 170 hotels with spa facilities circle the 130 mineral springs. Traditionally, the mud was used in its natural state, but now, it is “matured” in special tanks to improve its therapeutic properties. The maturation process developed by the Pietro d’Abano Spa Research Centre involves incubating the mud in Euganean mineral water for 50 to 60 days, allowing the nonpathogenic microorganisms present to multiply. The mud is used to treat osteoarthritis, fibromyalgia, soft tissue injury, inflammation, and some skin conditions.

In Europe, fangotherapy usually takes place once or twice a year at health spas under a doctor’s guidance. Although the regime may vary from spa to spa, in many cases, the patient fasts for 4 to 6 hours before a treatment. The treatment begins with mud applied to the body at a temperature of around 104° to 115°F (40° to 46°C). Full-body applications are left on the body for 20 minutes, whereas spot treatments are left in place for up to 30 minutes. After the mud treatment, the client soaks in the mineral springs or in the thermal waters of the region or takes a hot and cold contrast shower. Sometimes, the client is wrapped in blankets to increase perspiration after the hydrotherapy soak. The treatment ends with a massage and a long nap.

Fangotherapy in the United States

There is evidence that every major U.S. hot spring (and probably its associated mud) was used at some point by an Indian tribe.¹ The Native Americans considered a hot spring as sacred, neutral ground. Warriors could rest by a hot spring to heal a battle wound without worry that they would be attacked by another tribe. The early European settlers recognized the healing benefits of these hot springs and later developed them into commercial spas in the tradition of their homelands. Saratoga Springs in New York is an example of this type of early American spa.

In the face of modern medicine, spa therapy declined in the 1940s, and many of the European-inspired spa centers closed. With their closure, some of the specific knowledge about thermal waters and therapeutic mud at these locations was lost.¹

The increasing focus on fitness and wellness has fueled the reemergence of the spa industry and, with it, the use of fango for healing. At the time of writing, fango treatments

are mainly used for skin care in the United States. This may be because their therapeutic benefits have yet to be fully understood or appreciated. Another factor may be that most spa clients are familiar with the idea that fango improves the texture of the skin but may be less clear about its benefits for the musculoskeletal system and body. This is likely to change as information spreads about the use of fango treatments for decreasing pain from chronic conditions such as osteoarthritis or soft tissue injury, supporting detoxification, reducing stress, and relaxing the body.

Types of Products Used in Fangotherapy

All types of fango have heat retention properties and can be warmed up and applied to relax the body or decrease muscular tension. Clay, mud, and peat have different therapeutic properties and uses. Clay is mainly mineral (derived from rock) and is the most “drawing” and stimulating of the fango substances. Mud is also predominantly mineral but has small amounts of organic components that give anti-inflammatory or analgesic properties. Peat is therapeutically the most active substance of the three because it is mainly organic and derived from the breakdown of plant material over thousands of years. A number of European studies have concluded that peat is anti-inflammatory, analgesic, a local circulatory stimulant, antiviral, immune boosting, and endocrine balancing. Table 11-1 gives an overview of fangotherapy substances.

Clay

Clay is a general term for a variable group of fine-grained natural materials that are usually “plastic” when moist. When viewed under an electron microscope, clay particles are about 100 times longer than they are wide. If water is added to dry clay, the moisture is held between the flat plates by surface tension so that the particles do not pull apart but, instead, slide easily over one another. This gives moist clay its smooth and creamy consistency.

Many different types of clay are commercially available from different soils and environments around the world. Clays from marine sediments or from areas around hot springs or geysers usually have a higher mineral content than other clays, but all commercially available clay has the same basic properties. First, clay holds heat, so it can be warmed and used to decrease muscle tension and relax the body. Second, clay is highly absorbent and is used to draw impurities and moisture from the surface of the skin. This “drawing” action simulates local circulation and purifies the skin. Finally, clays readily suspend to form an **emulsion** in water or other liquid substances. This property is useful in cosmetics because clay helps to hold other substances together and prevent separation. Clay is regularly used as an emollient and colorant in powders, liquid foundations,

TABLE 11-1 Fangotherapy at a Glance

COMPOSITION	CATEGORIES	MAIN TYPES	COMMERCIAL NAME	PROPERTIES	USES
Mainly mineral	Clay	Kaolinite Illite Smectite	Kaolin, China white French green Bentonite Fuller's earth MAS	Thermal, relaxing, circulatory stimulant, absorbs excess oil and draws out impurities, suspends to form an emulsion to hold cosmetic substances together, acts as a carrier for other therapeutic products	As a thermal agent to warm and relax the body, as a base for treatment products, for esthetics Cosmetic emulsions
	Mud	Sulfur containing and "matured"	Dead Sea Euganean Piestany Many others	Anti-inflammatory, circulatory stimulant, analgesic, antiseptic, immune boosting, thermal, detoxifying, relaxing, others	Arthritis, muscle pain or soreness, joint pain, inflammation, relaxation, revitalization, esthetics, others
Mainly organic	Low-moor peat High-moor peat	Mosses and other plants Mainly mosses	Moor mud, many others Many European types	Anti-inflammatory, circulatory stimulant, antiviral, antiseptic, immune boosting, endocrine balancing, thermal, detoxifying, relaxing, others	Arthritis, muscle pain or soreness, joint pain, inflammation, relaxation, revitalization, esthetics, others

lotions, and skin masks. This characteristic also makes it useful as a carrier product for other therapeutic substances. Items such as seaweed, herbal infusions, essential oils, and natural food products (yogurt, honey, milk, fruit juices, and mashed fruits) can be mixed into clay to make interesting treatment products.

The use of clay is often associated with the areas in which it was mined. For example, Sedona clay is no more healing than other clays, but its link to the majestic red rocks of Arizona and to Native American healing traditions makes it a popular choice with clients. Table 11-2 gives an overview of some popular and commercially available clay.

TABLE 11-2 Overview of Popular Clays

CLAY TYPE	COMMERCIAL NAME	ORIGINS	APPEARANCE OR TEXTURE	COMMENTS
Kaolinite: From the Chinese word <i>kauling</i> meaning "high ridge," referring to the hill in the Jiangxi Province of southeastern China from which the clay was first obtained	Kaolin China white China clay	Southeastern China; Malaysia; Cornwall; England; and Georgia, United States	Fine-grained consistency, pure white color, smooth and creamy when wet	A good choice for in-house treatment products or as a carrier for essential oils
Illite: These clays are mica-like in structure and often originate from recently deposited deep-sea sediments; the most common clay found in nature.	French green (French green clay classically refers to an illite clay that has been mined in France and sun dried.)	Illite clays are found all over the world. The title "French green clay" does not always mean the product originated in France.	Extremely fine-grained, pale in color, smooth and creamy when wet	A good choice for in-house treatment products but often more expensive than kaolin
Smectite: Expanding lattice clays that usually swell in water	Sedona clay	Sedona, Arizona: Formed from ancient ocean sediment and volcanic activity	Fine to medium textured, red in color, smooth to slightly abrasive	A good choice for treatments aimed at detoxification or that contain a Native American spiritual element
	Wyoming bentonite	Often from Mississippi and Alabama; associated with freshwater sediments	Consistency can be lumpy, gray or brownish in color	Because the consistency can be lumpy, this is a good clay to avoid unless it has been processed commercially.
	Sodium bentonite	Associated with marine sediments and mined in many areas of the world	Gel-like in consistency and gray or brownish in color (may also be yellowish, pinkish, or greenish)	Used to regulate the viscosity in homemade skin care products; kaolin and French green clay are easier to use as treatment products.
	Fuller's earth	England and other areas; the clay gets its name from "fulling," the process of removing grease from woolen cloth	When mixed with water, it crumbles into mud and has little natural plasticity, so it has a lumpy, crumbly consistency.	Kaolin and French green clay are a better alternative for in-house treatment products.

TABLE 11-3 Creative Clay Mix-Ups^a

NAME	RECIPE	PROPERTIES	USES
Juniper clay	Spot treatment: 4 drops of juniper berry essential oil and water to the desired consistency Full-body treatment: 8 drops of juniper berry, 10 drops of grapefruit, and 2 drops of lemon oil with water to the desired consistency	Stimulating, warming, detoxifying, circulatory, and lymphatic stimulant, revitalizing	Foot mask for sore feet, full-body fango cocoon for detoxification, spot treatment for sore muscles
Coffee clay	Spot treatment: 1 shot of espresso and warm water or strong coffee to the desired consistency Full-body treatment: 3 shots of espresso and warm water or strong coffee to the desired consistency.	Stimulating, firming, circulatory stimulant	Spot treatment for body contouring or cellulite
Peppermint clay	Spot treatment: 3–6 drops of peppermint essential oil and warm water to the desired consistency	Stimulating, cooling, revitalizing, analgesic, circulatory and lymphatic stimulant	Foot mask for tired feet, spot treatment for sore muscles, spot treatment for cellulite
Rose petal clay Lavender clay	Spot treatment: 1 tsp of dried and powdered rose petals or lavender, 1 drop of rose, or 4 drops of lavender essential oil, and warm water to the desired consistency Full-body treatment: 2 tbsp of dried and powdered rose petals or lavender, 2 drops of rose or 8 drops of lavender essential oil, and warm water to the desired consistency	Relaxing, soothing, calming, softening	Foot or hand mask for a gentle treatment, full-body mask for a relaxation treatment
Pain-away clay	Spot treatment: 2 drops sweet birch oil, 2 drops eucalyptus oil, 1 drop German chamomile, and hemp seed oil to desired consistency (do not use water) Full-body treatment: 6 drops sweet birch oil, 4 drops eucalyptus oil, 2 drops German chamomile oil, and hemp seed oil to desired consistency (do not use water)	Analgesic, circulatory stimulant, antispasmodic, anti-inflammatory	Application to a specific joint, application to an area of pain (back, hamstring, etc.), spot treatment for sore feet
Egyptian clay	Spot treatment: 2 drops frankincense, 2 drops myrrh, 1 drop rose, and water to the desired consistency Full-body treatment: 8 drops frankincense, 4 drops myrrh, 1 drop of rose, 1 drop of geranium, and water to the desired consistency	Relaxing, softening, soothing, calming	For a treatment inspired by Egypt, for a full-body fango cocoon aimed at relaxation
Botanical clay	A variety of powdered herbs can be used and mixed with clay powder. Add 2 tbsp of powdered herbs to every cup of clay. Use an herbal infusion or tea to mix up the clay powder. For example, a green tea and lemongrass make a nice botanical combination.	The properties will be based on the botanicals that are used in the mix.	Foot or hand mask, full-body detoxification treatment, slimming treatment
Sunny clay	One-half cup of powdered oatmeal is added to every ½ cup of clay powder and mixed with warm juice (apple, cranberry, pineapple, or orange work well) to the desired consistency.	Refreshing, softening, revitalizing	Foot or hand masks, full-body cocoons aimed at relaxation and revitalization
Natural food items clay	Natural food items can be blended with clay and water to form treatment products. For example, fresh pumpkin, fresh avocado, fresh mango, or fresh papaya might be mixed with clay and water in a blender to the desired consistency. Note: Blend the clay as little as possible because it can lose some of its permeability with overmixing.	Refreshing, relaxing, softening, stimulating	Foot or hand treatment, back treatment, hair treatment, full-body cocoon

^aEach of these products can be mixed into any type of clay base. The reader will notice that the exact amount of clay or liquid is not indicated. This is because different clays hold water and mix up differently. The reader is advised to start with ½ cup of clay for a spot treatment and 2 cups of clay for a full-body treatment. More clay may be needed depending on the size of the client. The different liquids will be added until the desired consistency is reached. Aim for a creamy texture that is not too runny. To powder a botanical ingredient, it is dried and placed in a coffee grinder.

Table 11-3 offers some easy clay recipes for in-house treatment products.

Mud

Although mud is mainly mineral in origin such as clay, it contains 2% to 4% organic substances, which play an important role in its therapeutic use. Therapeutic mud is matured

or “ripened” in natural mineral water. The maturing process for each mud may be slightly different, but generally, it involves the oxidation and reduction of the mud over a period of up to 12 months. The process of maturing the mud is characterized by changes in the chemical composition of the mud and changes in its appearance.²

A good example is the maturing process used at the Piestany spa in Slovakia. The brown Piestany mud is matured

to increase its **sulfur** content by “curing” the mud in outdoor storage units and exposing it to bacteria, which reduce the sulfates present in the mud to sulfides. This changes the mud’s color from brown to black.² Up to 40,000 patients come to the spa each year to receive its famous fango treatment for arthritis.³

Sulfur is perhaps the most important component in the different kinds of therapeutic mud and occurs naturally in the vicinity of volcanoes and hot springs. Sulfur baths have been researched as a viable means of reducing oxidative stress on the body and decreasing inflammation in muscles and joints.⁴ Sulfur-rich mineral and mud baths are useful in the treatment of osteoarthritis, rheumatoid arthritis, and other inflammatory conditions. Individuals report that they experience increased strength, decreased morning stiffness, better walking ability, and decreased pain after a course of sulfur mud treatment. Therapeutic mud is also used successfully for bursitis, tendonitis, sprains, strains, and other musculoskeletal injuries and disorders.

One of the most popular types of sulfur-containing therapeutic mud is that obtained from the Dead Sea region in Israel. The extremely saline water (27% salt) is 10 times saltier than the Mediterranean Sea and has a high concentration of calcium, magnesium, sodium, potassium, and bromine. Research on Dead Sea mud supports its use in the treatment of arthritis,⁵ rheumatoid arthritis,⁶ skin problems, and respiratory diseases.⁷

Peat

Sphagnum is the main genus of mosses that form a bog. As the *Sphagnum* moss decays, the bog becomes filled with a deeper and deeper layer of dead *Sphagnum*, which is known as peat. The lack of oxygen in the bog and the acidic conditions created by *Sphagnum* slow the growth of microbes. This is why human bodies unearthed from peat bogs thousands of years after burial are perfectly preserved. Because the rate of decomposition is very slow, the minerals usually recycled by living things remains in the peat.⁸ This is why peat is therapeutically active and why gardeners use peat to build up the fertility of soil.

Peat is usually broken down into two main commercial categories: high-moor peat and low-moor peat. The basis for this is unclear, and the two types are often so similar that they are difficult to separate without information on their geographical origin.⁹ Spas generally prefer to use low-moor peat (a well-known lowland peat is **Moor mud** from the Neydharting Moor in Austria) because it is thought to have a broader range of therapeutic properties than high-moor peat. This idea reflects the belief that compared to high-moor peat, low-moor peat is composed of a wider range of plant species, so it is likely to have a wider range of therapeutic properties. However, research gives no clear evidence of a significant difference in the therapeutic benefits of the two types of peat.

For more on the benefits of fango, see Broaden Your Understanding 11-1.



Broaden Your Understanding 11-1 FANGO BENEFITS FOR THE SKIN

Estheticians value fango applications for the reason that clay, mud, and peat benefit the skin and improve the skin’s texture. Because of its absorbent nature, clay is the most popular choice for oily skin types. Clay draws impurities out of the skin, stimulate local circulation, which aids in nutrient exchange, and retextures the skin by supporting natural exfoliation. Clay can also be softening, even for dry skin, so long as it is kept moist while it is on the skin and not allowed to dry out.

Mud and peat soften the skin’s texture, and some minerals may be absorbed from the mud into the skin, although the evidence for this is unclear. Some studies suggest that fango treatments help to normalize the pH of the skin, strengthen the barrier function of the stratum corneum, decrease transdermal water loss, and normalize sebum flow, making fango useful for both dry and oily skin.^{10,11} After a full-body fango application, clients will often notice the improved texture of their skin and its softness.

General Treatment Considerations

Before providing fango treatments, assess the contraindications for the treatment and pay attention to the special storing, mixing, warming, and processing requirements for fango.

Contraindicated Individuals

Clients with heart or circulatory conditions; who are pregnant; or have a fever, diabetic neuropathy, or neurological disorders should not receive full-body hot fango treatments. Spot applications on such individuals may be appropriate for use, depending on the medical condition, the temperature of the fango (98° to 102°F is recommended), the length of the treatment, and the use of other products in the service.

Broken or Inflamed Skin

The use of peat and mud is not advised on broken or inflamed skin. Although peat and mud are regularly used in Europe and by estheticians for skin care, broken skin is prone to infection. Peat and mud is not necessarily checked for harmful pathogens or held to any standardized quality requirements. Clay can be used with oily skin that has minor blemishing, but severe acne, which might be located on a client’s back, should not be treated except by an esthetician or dermatologist.

Fango Temperature

Fango can be applied from room temperature up to 115°F. It is interesting to note that in Europe, the fango is applied at a temperature of 104° to 115°F even in situations where there is acute inflammation. Despite the excellent results they achieve in Europe, it is better to err on the side of caution and not use hot temperatures for inflammation. Apply fango at room temperature or chilled to the area of injury and apply heated fango to the rest of the body. Areas distal to the injury site should not be treated with fango to prevent stagnation in the distal tissue. An overview of the use of fango for soft tissue injury and inflammation with specific temperature recommendations is given below. A metal probe-type thermometer or a latte thermometer can be used to check the temperature of the fango.

Mixing and Storing Fango Products

When using mud, clay, or peat, they should not be mixed or stored in metal containers because they may react chemically with the metal. Clays can lose some of their permeability if they are overprocessed or overmixed. It is recommended that fango products are heated once only in a double boiler, used shortly afterward, and the leftovers discarded.

Preventing Dry Out

Mud and peat are not commonly allowed to dry out on the body. They are covered in plastic or with a hot, damp towel during the treatment to keep them moist. This is because the therapeutic properties of the mud are affected if the fango dries out, and the microorganisms living in the fango are killed. For certain purposes (e.g., to draw blood to the local area of skin or oily skin on the back) clay can be allowed to dry out slightly but not completely. Clay that is too dry is not good for the skin because it can become irritated and dehydrated as the clay pulls out its moisture and oils. Use a moisturizing lotion after using clay products on any area of the body.

The Full-Body Fango Cocoon

A full-body fango cocoon is indicated for a wide range of conditions, including low energy, low immunity, stress, muscle tension and soreness, chronic soft tissue conditions such as fibromyalgia, cellulite, and contouring treatments, and to support the natural detoxification mechanisms of the body. Full-body applications of mud, clay, or peat are difficult to carry out in a dry room setting because product removal is time-consuming, and the client may get cold and impatient. Gel-based fango products are now available and are easy to remove in a dry room, but the fango in these products is significantly diluted. If a shower is not available, a gel-based product or spot treatment is recommended.

In the full-body fango cocoon overview shown in Treatment Overview 11-1, a foaming body wash product

Treatment Overview 11-1: The Full-Body Fango Cocoon Overview



Indications

Stress, muscle tension and soreness, chronic soft tissue condition, relaxation, detoxification support, body contouring, revitalization

Contraindications

Heart or circulatory conditions, pregnancy, fever, diabetic neuropathy or neurological disorders, recent soft tissue injury, any condition contraindicated for massage

Supplies for the Treatment Table Setup (from the bottom layer to top layer)

1. Blanket (wool or cotton) placed across the table (horizontally) so that the long edges are at 90 degrees to the table edges
2. Thermal space blanket placed horizontally (optional)
3. A plain flat sheet placed in a standard orientation with its long edges parallel to the edge of the table (if the fango needs to be removed in a dry room)
4. A plastic sheet placed horizontally
5. One bath towel placed horizontally at the top of the table
6. One bath towel placed horizontally at the bottom of the table
7. Drape
8. Bolster

A Fomentek might be used under the massage sheet if additional warmth is needed.

Supplies for the Work Table Setup

1. Dry brushes
2. Fango warming in a double boiler
3. Application brush or vinyl gloves
4. Bowl of warm water
5. Foaming body wash product
6. Massage cream
7. Aroma mist
8. Soda cooler
9. Hot, moist towels
10. Dry hand towels
11. Disposable undergarments

Dry Room Procedure

1. Dry brush the posterior body areas.
2. Apply fango to the posterior body areas.
3. Turn the client supine using the flip-over method.
4. Dry brush the anterior body areas.
5. Apply fango to the anterior body areas.
6. Cocoon for 20–30 minutes. Massage the feet and/or face while the fango is processing.
7. Unwrap.
8. Remove the fango from the client's body and remove the plastic sheeting under the client.
9. Cleanse and then massage each anterior body area.
10. Aroma mist.

(continued on page 224)

Treatment Overview 11-1: The Full-Body Fango Cocoon Overview (continued)



11. Turn the client prone.
12. Cleanse and then massage each posterior body area.

Procedure if a Shower Is Available

1. Exfoliate or dry brush the posterior body areas.
2. Turn the client supine.
3. Exfoliate or dry brush the anterior body areas.
4. Apply fango using the sit-up method.
5. Cocoon for 20–30 minutes. Massage the feet and/or face while the fango is processing.
6. Unwrap the client and remove some of the fango by hand (wear vinyl gloves for quick cleanup).
7. Move the client to the shower wrapped in the body plastic.
8. Change the table to massage sheets while the client showers.
9. Client returns to a clean massage table.
10. Full-body massage.
11. Aroma mist.

is applied after the fango has been removed. The body wash helps clean off any remaining traces of fango if a gel-based product was not used and no shower is available. Step-by-step directions for a cocoon wrap are described in Chapter 9 (Body Wraps). Notice that the outline in Treatment Overview 11-1 does not follow the directions in Chapter 9 exactly. As with any service, treatment steps can be mixed and matched, depending on the facility, products, and the preferences of the individual therapist.

The Fango Back Treatment Procedure

Fango back treatments are delivered by massage therapists to decrease lower back or upper back pain, to release tense muscles, for general relaxation, or for revitalization. You are encouraged to include lots of massage in this treatment. Any other treatment product could be used in place of the fango in this outline, depending on your treatment goals. A snapshot of this service is given in the fango back treatment overview described in Treatment Overview 11-2 and in Figure 11-2.

Session Start

In option 1, the client begins the treatment in the prone position. This requires the client to lie face down for approximately 40 minutes, which can be too long for some, especially those clients that are prone to respiratory congestion when in a face cradle. If this is a concern, use option 2 described in the overview.

Treatment Overview 11-2: The Fango Back Treatment Overview



Indications

Late subacute to chronic back pain, stiff muscles from a workout or overexertion, stress, chronic muscular holding patterns, or for general relaxation

Contraindications

This particular outline is contraindicated for acute inflammation. Fango is also contraindicated for broken skin, severe back pain, or posterior leg pain from an undiagnosed cause or any condition contraindicated for massage.

Supplies for the Treatment Table Setup (from the bottom layer to the top layer)

1. Bottom massage sheet
2. Bath towel
3. Top massage sheet
4. Blanket or bath sheet for warmth
5. Bolster

Supplies for the Work Table Setup

1. Cleanser
2. Exfoliation product
3. Bowl of warm water
4. Massage oil or cream
5. Fango warming in a double boiler
6. Application brush or vinyl gloves
7. Plastic body wrap cut so that it will cover the back
8. Warm pack
9. Thermometer
10. Hot, moist towels
11. Soda cooler
12. Finishing product
13. Skin toner and cosmetic sponges
14. Aroma mist

Procedure Option 1

1. Apply steamy towels to the back.
2. Cleanse the back.
3. Exfoliate the back.
4. Apply a skin toner to the back.
5. Massage the back.
6. Remove excess massage cream or oil.
7. Apply fango to the back and cover with plastic.
8. Drape the back and place a warm pack on top of the drape so that it keeps the fango warm.
9. Massage the posterior legs (while the fango is in process).
10. Remove the fango.
11. Apply a finishing product.
12. Turn the client supine.
13. Massage the neck and shoulders.
14. Aroma mist.

Procedure Option 2

1. Massage the posterior legs.
2. Massage the back.
3. Cleanse the back.

4. Exfoliate the back and skin tone.
5. Turn the client to the supine position.
6. Sit the client up and apply fango to the back.
7. Lay the piece of plastic body wrap across the top of the massage table.
8. The client lies back onto the body wrap plastic.
9. Massage the neck, face, and feet while the fango is in process.
10. Sit the client up and remove the fango with hot, moist towels.
11. Apply a finishing product to the back.
12. Lie the client down and aroma mist to close the session.

Step 1: Steam the Back with Hot, Moist Towels

Place two hot, moist towels on the back to steam the area and warm the tissue. A professional steaming unit (the type that is frequently used by estheticians in facials) can be used if it is available. If a professional unit is used, steaming can continue during the cleansing and exfoliation step because it warms the tissue and feels good.

Step 2: Cleanse the Back

Apply warm water to the back with the hands and then work a foaming cleanser into the skin with relaxing massage strokes.



FIGURE 11-2 The fango back treatment. **(A)** Steam the back. **(B)** Exfoliate and cleanse. **(C)** Massage the back. **(D)** Apply the fango to the back. The product used in this picture is Moor mud (a peat). **(E)** Cover the fango with plastic. **(F)** Process. Massage the posterior legs. *(continued)*



FIGURE 11-2 (continued) **(G)** Remove the fango. Remove as much fango as possible with the plastic body cover. Remove the remaining fango with hot towels. **(H)** Apply a finishing product to the back.

Step 3: Exfoliate the Back

Complete the cleansing step by using a small amount of exfoliation product on the skin. Work it in circular motions over the top of the back with two handheld loofahs or your bare hands. This feels stimulating and invigorating, and it improves local circulation to the skin. Remove both the exfoliation and cleansing products with one hot, moist towel and apply a skin toner with cosmetic sponges.

Step 4: Massage the Back

Massage the back with Swedish, deep tissue, or other massage techniques for 10 to 20 minutes, depending on the time you have allotted for the session. Remove the massage oil or cream with a hot towel and apply a toner to the skin with cosmetic sponges.

Step 5: Application of Warm Fango

Check the temperature of the fango with a metal probe thermometer or a latte thermometer. It should be warmed to between 100° to 110°F. Apply a thick layer of warm fango to the back with a brush or use massage strokes to apply it with your hands while wearing vinyl gloves. Cover the fango with a precut piece of plastic wrap sheet and place an insulating blanket and warm pack (hydrocollator pack, rice, or flax seed microwavable pack, etc.) on top. To view a video demonstration of product application, visit thePoint. [▶](#)

Step 6: Process—Massage the Legs and Feet

Massage the posterior legs and feet while the back processes in the fango. The treatment can be further customized to

the needs of the client by offering a sports-oriented massage with essential oils for sore muscles such as bay laurel or sweet birch or a skin-firming massage with essential oils of grapefruit and thyme.

Step 7: Remove the Fango

After 15 to 20 minutes, remove the fango with hot towels and apply a skin toner with soothing massage strokes. Most alcohol-free toners contain glycerine, which provides enough lubrication for the application of massage strokes.

Step 8: Application of a Finishing Product

Choose a finishing product that matches your treatment goals and apply it to the client. For example, a sore muscle treatment might end with a tingly fitness gel that contains pain-relieving camphor or peppermint. A general revitalization treatment might finish with a cream rich in citrus oils, which boost immunity and firm the skin.

Session End

Turn the client into the supine position for a neck, shoulders, and face massage. Finish the service with an aroma mist to fill the treatment room with a refreshing scent.



SANITATION

Some exfoliation mitts, textured cloths, and gloves are meant to be washed in a washing machine with hot water and dried in the dryer. If they cannot stand up to being washed, they should be disposed of after use on the client or wrapped up in plastic and sent home with the client.

Treatment Overview 11-3: The Fango Scalp and Neck Treatment Overview



Indications

Neck tension, face tension, stress reduction, relaxation, revitalization

Contraindications

Broken skin on the scalp, scalp condition, recent soft tissue injury such as whiplash, severe headache pain or migraine, illness, fever, or any condition contraindicated for massage

Supplies for the Treatment Table Setup (from the bottom layer to top layer)

1. Bottom massage sheet
2. Plastic body wrap placed horizontally at the top end of the massage table
3. Top massage sheet
4. Blanket or bath sheet for warmth
5. Bolster
6. Hand towel rolled into a "sausage" to be placed under the client's neck
7. Warm pack for the belly
8. Eye pillow for the eyes
9. Warm pack or microwave booties for the feet

Supplies for the Work Table Setup

1. Soda cooler
2. Hot, moist towels
3. Scalp oil in a bottle with a flip-top lid warming in a hot water bath
4. Massage cream
5. Fango warming in a double boiler
6. Comb
7. Hair clip
8. Plastic hair cover or shower cap
9. Aroma mist
10. Essential oils (optional)

Procedure

1. Comb out the hair if needed.
2. Steam the head and face.
3. Massage the neck.
4. Massage the scalp.
5. Apply fango to the scalp.
6. Massage the feet and/or the hands while the fango is processing.
7. Remove the fango from the hair.
8. Massage the face.
9. Clip the hair up and cover it with a plastic shower cap (optional).
10. Aroma mist.

galea aponeurotica are firmly attached to each other. The thin, sheetlike muscles of the scalp move the scalp, ears, and eyebrows. The thin, small muscles of the face create the movements that lead to facial expression. Every day, these muscles get a workout, and tension in facial and scalp muscles can play a significant role in tension headache pain or pathologies such as temporomandibular joint syndrome (TMJ). The fango scalp and neck treatment is indicated for neck tension, tension headache, face tension, relaxation, stress reduction, and revitalization. This service allows massage therapists to focus on an area that is often touched on only briefly in a full-body massage. Although fango is used in this treatment outline, seaweed or melted shea butter can also be used with good results.

In this service, oil and fango are massaged through the hair to the scalp. Obviously, this will mess up the client's hair, and shampooing the hair is out of the scope of practice for massage therapists in most states. To avoid scope of practice conflicts, you have three main options: (1) The client can be passed on to a cosmetologist who will finish the service by washing, cutting, and/or styling the client's hair; (2) the client can wash and condition his or her own hair (provide high-quality professional products) in a shower or tub; or (3) most of the fango can be removed with hot, moist towels so that the client can go home and wash his or her hair. In this case, the type of treatment product you use is important. Most fango (or shea butter) will not damage the hair or irritate the scalp if it is left on for an extended period of time. Seaweed, on the other hand, may irritate the scalp, so it should be avoided in this instance. The scalp and neck treatment overview in Treatment Overview 11-3 and Figures 11-3 and 11-4 provide a snapshot of this service.



FIGURE 11-3 Orientation of the plastic for the scalp, hair, and neck treatment.

The Fango Scalp and Neck Treatment Procedure

The scalp consists of five layers that include the skin, subcutaneous tissue, epicranium (including its aponeurosis, the galea aponeurotica), loose connective tissue, and the pericranium. The skin, the subcutaneous tissue, and the

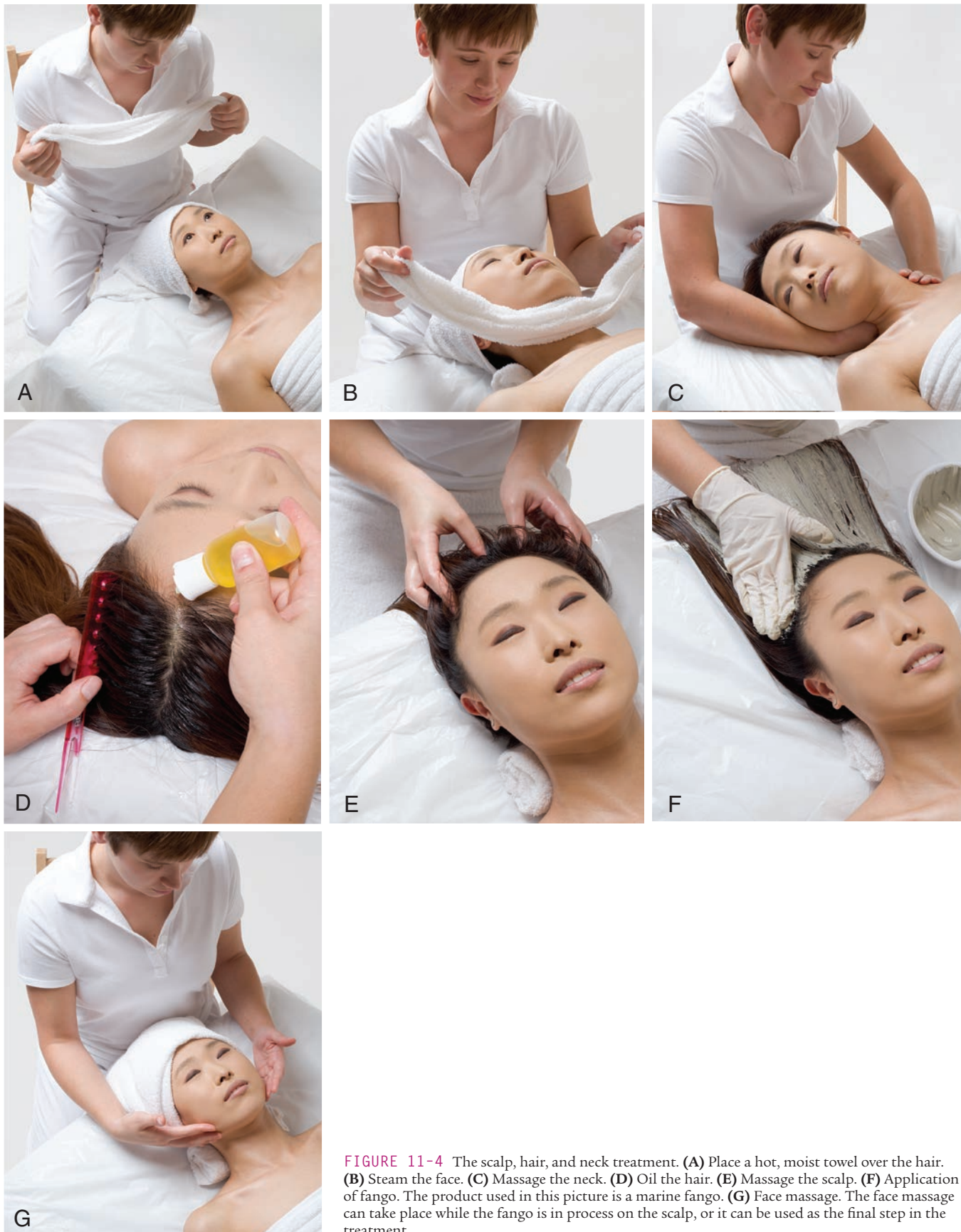


FIGURE 11-4 The scalp, hair, and neck treatment. **(A)** Place a hot, moist towel over the hair. **(B)** Steam the face. **(C)** Massage the neck. **(D)** Oil the hair. **(E)** Massage the scalp. **(F)** Application of fango. The product used in this picture is a marine fango. **(G)** Face massage. The face massage can take place while the fango is in process on the scalp, or it can be used as the final step in the treatment.

Session Start

The client will need to remove his or her top and socks (for foot massage) for this service. Clients often feel more comfortable if they leave on their underclothing but remove their clothes. This prevents their clothing from getting wrinkled or from bunching and restricting the client's movement. The client is bolstered as he or she would be for massage and covered with a top sheet and blanket for warmth. A hand towel is rolled up and placed under the neck to give support. Warm packs placed on the belly and under the feet are soothing and comforting. If the client's hair is tangled, it is helpful to comb it out gently before the treatment starts.

To begin the service, place 1 drop of an essential oil in the palm of your hands, rub them together briefly, and place them in an arch over the client's nose with your hands about 1 inch above the highest point of the nose. Ask the client to take a slow, relaxing breath. Essential oils that work well for this type of inhalation include lemon, Spanish sage, peppermint, rosemary, common sage, or eucalyptus, although any oil could be used.

Step 1: Steam the Head and Face

Remove a steamy towel from the soda cooler and place it around the top of the client's head. Place a second towel over the client's face. Allow the towels to steam the head and face for approximately 1 minute. Remove the towels and repeat this procedure with a second set of towels if desired. It is nice to scent these towels with essential oils or with herbs. If you scent the towels, use a different aroma in the hand inhalation. You want the aromas to contrast to increase the client's olfactory enjoyment as discussed in Chapter 7 (Introduction to Aromatherapy for Spa).

Step 2: Massage the Neck

Remove the rolled hand towel supporting the client's neck and provide a 10- to 15-minute neck massage using a full range of strokes and techniques. Include the upper chest area and arms if desired. Use a massage oil or cream but think about the aroma. Again, you want it to work well with the other aromas in the service.

Step 3: Massage the Scalp

Test the temperature of the scalp oil in a bottle with the flip-top lid to ensure that it is not too hot. Part the client's hair down the middle and pour warm oil down the parting from the hairline to the whorl of hair at the crown of the head. The whorl is the place where the hair changes the direction of its growth at the back of the head. Using soft pressure, zigzag the oil into the scalp, working out from the parting toward the sides of the head. Direct pressure and gentle circular friction applied down the path of the parted hair stimulates the scalp and helps to relax tight muscles.

From the centerline created by the parting, jump down 1 inch on one side of the head and create a new parting, flipping the excess hair over the other side of the head. Repeat the oil and massage sequence. Jump down another inch and create a new parting and then repeat the oil and massage sequence. Jump down another inch and create a third parting and repeat the oil and massage sequence. The final parting of the side of the head should start just above the ear. When one side has been oiled and massaged, the entire process is repeated on the other side of the head. This ensures that the entire scalp has been covered in oil. You can now massage the scalp with a variety of techniques for an additional 5 to 10 minutes. Be sure to include the ears in the massage because this is an area that can hold a great deal of tension. A number of head massage techniques are shown in Chapter 14 under the "Indian Head Massage" section. At the end of the massage, the hair is combed straight back from the forehead in preparation for the application of fango.

Step 4: Application of Warm Fango to the Head

Wearing vinyl gloves, apply warm fango from the hairline to the back of the head. The hair is then twisted up and a hot, moist towel is used to cover the fango and wrap around the head. A second dry towel is placed over the top of the hot, moist towel to insulate it.

Step 5: Process—Massage the Feet and Hands

The feet and hands can be massaged while the fango is processing on the scalp. You may also exfoliate the feet and hands and dip them in paraffin. For shorter treatments, massage the client's face while the fango is processing on the scalp and then end the service by removing the fango from the hair.

Step 6: Remove the Fango from the Hair

Remove the insulating towel and pull the hot, moist towel from the hair, taking as much fango as possible with it. A second and then a third hot, moist towel is placed over the hair and used to gently remove fango from the head. It is not possible to remove all of the fango or scalp oil from the hair in this manner, so the hair is now twisted and clipped up out of the way in anticipation of the final step of the service, the face massage.

Step 7: Face Massage

Massage the face using either a heavy face cream or a light massage cream and then move on to the neck because both the head and neck will have been immobile for some time while the fango was processing. The face massage typically takes from 5 to 15 minutes, depending on the time

available. Face massage techniques are described in Chapter 5 (Foundation Skills for Spa Treatment Delivery).

Session End

Spritz an aroma mist in a high arch over the client to end the service and fill the treatment room with a refreshing scent. The session can end in three different ways: (1) Pass the client on to a cosmetologist for a shampoo, cut, and style; (2) escort the client to a shower or soaking tub where he or she can relax and shampoo hair; or (3) the client goes home to wash his or her hair.

Fango Applications for Musculoskeletal Injury and Disorder

Massage and fango treatments are a powerful combination for the treatment of musculoskeletal injuries or conditions. Although some believe that mud therapy is a purely thermal process and therefore similar to any topical application of hot or cold, research in Europe suggests otherwise. In a study conducted in Italy, the level of hormone peptides from proopiomelanocortin, plasma beta-endorphin, and some hormones of the pituitary-adrenal glands were all decreased when mud pack treatments were used. The decrease in the levels of these peptides and hormones led to a reduction in the stress experienced by the patient, which, in turn, supported the healing process. These effects began after the first of 12 mud sessions and lasted for 30 days after the treatments had finished.¹¹

In osteoarthritis, proinflammatory cytokines and nitric oxide play a role in progressive cartilage degradation and in the secondary inflammation of the synovial membrane of the affected joint. Mud pack treatment can positively affect the chemical mediators of inflammation and decrease damage to cartilage and the synovial membrane.¹²⁻¹⁴ In Germany, a study conducted at the Department of Natural Cure, Blankenstein Hospital in Hattingen showed that peat components had positive effects on both the endocrine and immune system.¹⁵ A study in France showed that vascular changes induced by mud pack therapy are not fully explained by vasodilatation in response to local temperature elevation. Although the other mechanisms involved could not be determined, it was concluded that mud packs could be successfully used to address vascular insufficiency in the lower limbs.¹⁶

The goal of this section is to encourage therapists to explore the use of fango in treatments to reduce inflammation, decrease stress, increase range of motion, increase circulation to the local tissue, and decrease adhesion formation and for conditions including soft tissue injury, fibromyalgia, osteoarthritis, and rheumatoid arthritis. It is assumed that a therapist using fango for such conditions understands the principles of hydrotherapy, has a solid understanding of pathology, and has prior knowledge and experience working with these conditions. For further infor-

mation on these topics, therapists are referred to *A Massage Therapist's Guide to Pathology* by Ruth Werner,¹⁷ and *Massage for Orthopedic Conditions* by Thomas Hendrickson.¹⁸

Acute Conditions

In *Massage for Orthopedic Conditions*, Hendrickson¹⁸ summarizes the causes of pain as mechanical, chemical, and thermal. When abnormal tension is placed on soft tissue, especially over a period of time, it leads to tissue damage and inflammation, resulting in mechanical injury. Chemicals that are released as mediators of inflammation irritate nerve endings, leading to increased pain and muscle guarding. This, in turn, causes hypertonic muscles and ischemia (low oxygen), which increases the chemical toxicity of the tissue.

In an acute situation, where pain, loss of function, redness, heat, and swelling are present, you may be unable to manipulate the soft tissue structures involved in the injury. The general treatment goal is to reduce inflammation, reduce pain, reduce sympathetic nervous system firing, and maintain any available range of motion unless passive movement is contraindicated as with bursitis. Often, you will apply an ice pack and gently massage the other areas of the body if the client can tolerate it. In some situations, the client is only able to tolerate the lightest touch, so only energy-work techniques are appropriate.

Mud or peat applications are ideal in this situation because they are more relaxing for the client than ice and because the mud may affect the chemical mediators involved in the inflammatory process.^{13,14} The application method is the same in most cases of inflammation including rheumatoid arthritis, bursitis, osteoarthritis flareups, sprains, strains, tendonitis, tenosynovitis, and whiplash. Fango is applied to the area at the beginning of the treatment at a temperature of 50° to 75°F (10° to 24°C). A thermometer is used to monitor the temperature of the product. Anti-inflammatory essential oils such as German chamomile and helichrysum can be applied to the skin at a 10% concentration (60 drops of essential oil to every ounce of carrier product) before applying the mud. Although this may seem too high to American aromatherapists, this is the concentration used in Europe for topical applications and is very effective so long as the oils are not skin irritants. Aromatherapy blends for inflammation are provided in Table 11-4, whereas single essential oils for acute, subacute, and chronic inflammation are described in Table 11-5.

The soft tissue structures in an acute injury are already under extreme pressure due to the buildup of fluid in the tissue. The fango cannot be slathered on the body area as it would be in a normal treatment because the area will be sensitive. Instead, the fango is moistened with mineral water until it has the consistency of a smooth paste. This paste is spread on a cotton cloth or pillowcase in a half-inch to 1-inch layer (Fig. 11-5). The cloth is placed gently over the affected body area with the mud facing toward the skin. It is left in place for up to 30 minutes while associated areas are

TABLE 11-4 Sample Essential Oils for Stages of Inflammation

ACUTE TO EARLY SUBACUTE	LATE SUBACUTE	CHRONIC
Sweet birch	Bay laurel	Bay laurel
White camphor ^a	Sweet birch	Sweet birch
German chamomile	White camphor ^a	White camphor
Cypress	Carrot seed	Clove
Fennel seed	Roman chamomile	Eucalyptus
Geranium	Eucalyptus	Fir needle
Grapefruit	Fir needle	Ginger
Helichrysum	Juniper berry	Juniper berry
Lavender	Lavender	Lavender
Lemon	Lemon	Sweet marjoram
Peppermint	Sweet marjoram	Peppermint
Myrrh	Peppermint	Scotch pine
Tea tree	Scotch pine	Rosemary
Wintergreen	Rosemary	Turmeric
Yarrow	Wintergreen	Wintergreen

^aBrown and yellow camphor contain high concentrations (up to 80%) of safrol, which is toxic and carcinogenic. White camphor contains no safrol and is considered nontoxic and non-irritant.

TABLE 11-5 Sample Essential Oil Blends for Stages of Inflammation

ACUTE TO EARLY SUBACUTE	LATE SUBACUTE	CHRONIC
Blends are at a 10% concentration	Blends are at a 3% concentration	Blends are at a 2.5% concentration
Blend 1 2 oz of hemp seed oil German chamomile 10 drops Helichrysum 10 drops Note: This blend will smell strong and be very expensive to create but it is highly effective.	Blend 1 2 oz of hemp seed oil Bay laurel 10 drops White camphor 6 drops Sweet birch 6 drops Rosemary 5 drops Lavender 11 drops	Blend 1 2 oz of hemp seed oil Atlas cedarwood 10 drops Ginger 5 drops Lemongrass 2 drops Lavender 10 drops Thyme 3 drops
Blend 2 2 oz of hemp seed oil Lavender 32 drops German chamomile 9 drops Helichrysum 9 drops Grapefruit 30 drops Sweet birch 9 drops	Blend 2 2 oz of hemp seed oil Sweet marjoram 11 drops Turmeric 7 drops Eucalyptus 6 drops Roman chamomile 3 drops Spike lavender 11 drops	Blend 2 2 oz of hemp seed oil Bay laurel 10 drops Clove 2 drops Lemon 12 drops Fir needle 6 drops

massaged (so long as the client can tolerate touch). Warm fango (98°F or 36°C) can be applied to areas proximal to the injury site for its relaxing and soothing effect and to dissipate muscle spasms. Note that warm mud should not be applied to areas distal to the injury site due to the restricted blood flow in these tissues caused by the injury. Gently remove the mud with warm water and sponges at the end of the treatment.



SANITATION

To clean the cotton cloth or pillowcase used for the fango compress, rinse it in a bucket of hot, soapy water until most of the fango is removed. They can then be washed in the washing machine and dried with heat. Fango must be cleaned up in such a way to prevent damage to plumbing and equipment.



FIGURE 11-5 Application of fango for an acute or early subacute condition.

Subacute Conditions

As the body progresses into the late phase of subacute inflammation, fango can be applied directly to the body area at warmer temperatures (98° to 104°F) for 20 to 30 minutes either before or after the massage (Fig. 11-6). Once applied, it is covered with a moistened cloth and an insulating blanket. It is important to use rhythmic joint mobilizations at the end of the session to encourage collagen to reorient itself along the lines of muscular stress. When an area is immobilized due to an injury, there can be a significant increase in adhesion formation. Carrot seed essential oil is particularly useful with cross-fiber friction techniques for decreasing adhesions and scar tissue.

Chronic Conditions

In the chronic stages of inflammation, the treatment goal is to lengthen and strengthen the tissue to prevent further microtearing and irritation. Hot fango can also be used for osteoarthritis that is not in a flareup, chronic plantar fasciitis, thoracic outlet syndrome caused by middle scalene or pectoralis minor tension and torticollis. A variety of massage techniques including deep tissue, myofascial release, muscle energy technique, post-isometric relaxation (PIR), active isolated stretching (AIS), and many others can be used in combination with fango applications, depending on the type of condition. For chronic conditions, the ability of fango to hold heat is particularly effective. It can be applied directly to the area in a ½- to 1-inch thick layer and left on for up to 30 minutes.

A full-body fango application is indicated for fibromyalgia and chronic fatigue syndrome but should only be given with a doctor's release or an advanced understanding of these conditions. It is important to remember that a full-body

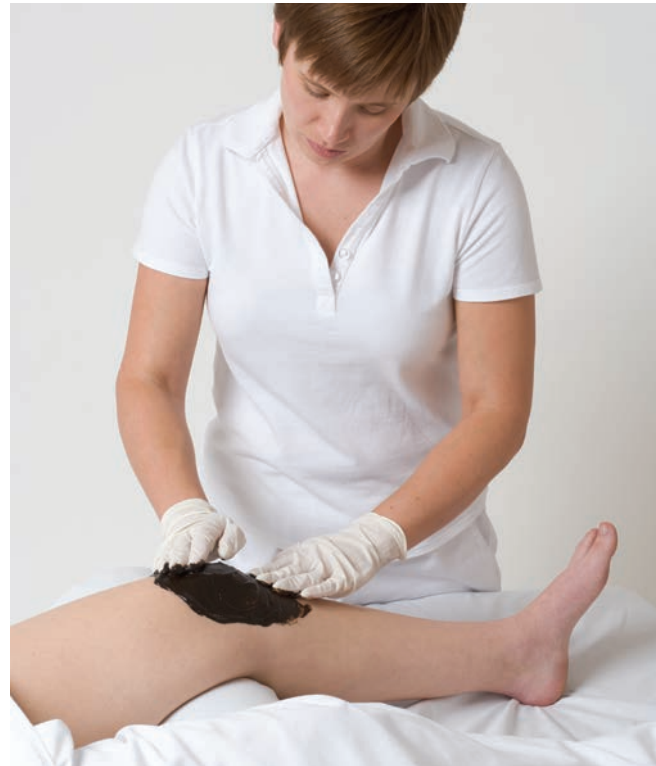


FIGURE 11-6 Application of fango for a subacute or chronic condition.

application may be contraindicated for weakened individuals. Follow the steps outlined in the cocoon procedure in Chapter 9 (Body Wraps). If caution is required, the fango should be applied at a temperature closer to body temperature (98° to 104°F rather than 104° to 115°F) and should not be left so long (15 minutes rather than 20 minutes).

SPA FUSION INTEGRATION OF SKILLS



STUDY TIP: Read and Learn

A number of excellent resources for myofascial and deep tissue work can help you to explore these techniques in depth and then incorporate fango with advanced treatment work into sessions to benefit soft tissue conditions. Check out these books:

- ❑ **Travell and Simons:** *Myofascial Pain and Dysfunction: The Trigger Point Manual*. Media, PA: Williams & Wilkins; 1991.
- ❑ **Barns:** *Myofascial Release: The Search for Excellence*. Available at <http://www.myofascialrelease.com/store/books.asp>. Accessed June 2008.
- ❑ **Schultz and Feitis:** *The Endless Web: Fascial Anatomy and Physical Reality*. Berkeley, CA: North Atlantic Books; 1996.

- ❑ **Myers:** *Anatomy Trains: Myofascial Meridians for Manual and Movement Therapists*. New York, NY: Churchill Livingstone; 2002.
- ❑ **Juhan:** *Job's Body: A Handbook for Bodywork*. New York, NY: Station Hill/Barrytown; 1989.
- ❑ **Riggs:** *Deep Tissue Massage: A Visual Guide to Techniques*. Berkeley, CA: North Atlantic Books; 2002.

GOOD TO KNOW: The American Pain Society

The American Pain Society (<http://www.americanpainsociety.org>) and the American Pain Foundation (<http://www.painfoundation.org>) are two national organizations that conduct research on pain and seek to improve the quality of life for people living with pain. Their websites contain research, the latest



SPA FUSION

INTEGRATION OF SKILLS (continued)

interventions for pain management, and other resources that you or your future clients may find useful. As you work with fango, you are encouraged to move beyond the applications for relaxation and beauty into sessions that support pain management treatment goals.

CHAPTER WRAP-UP

Fangotherapy is the use of mud, peat, and clay for healing purposes. Although fango treatments are mainly used for skin care in the United States, massage therapists will find fango useful for spa treatments aimed at the reduction of soft tissue pain and dysfunction and to relax and revitalize the body.

The therapeutic substances used in fango spa treatments have different characteristics that affect their therapeutic properties and uses. Clay, which is mainly mineral (derived from rock), is the most absorbent of the fango substances. It is used to pull impurities from the skin and to stimulate circulation. Mud is also predominantly mineral but has small amounts of organic components that give it a wider range of properties. A mud may be anti-inflammatory, antiviral, and immune boosting. Peat is therapeutically the most active substance of the three because it is mainly organic and derived from the breakdown of plant material over thousands of years.

REVIEW QUESTIONS

Multiple Choice

- _____ is a component of therapeutic mud, especially those that are obtained in the vicinity of volcanoes and hot springs.
 - Mucilage
 - Fango
 - Sea salt
 - Sulfur
- Fango* is the Italian word for _____.
 - Seaweed
 - A body wrap
 - Relaxation by a mineral spring
 - Mud

- When a mud is “matured,” it is:
 - Processed to develop nonpathogenic microorganisms that make the mud more therapeutic
 - Aged to make the mud smell more pleasing
 - Dried or dehydrated to kill any pathogenic microorganisms
 - Mixed with fresh plants to increase the range of chemicals
- In Europe, fangotherapy is regularly used in the treatment of:
 - Cancer
 - AIDS
 - Arthritis
 - Meningitis
- Therapeutic peat falls into two main commercial categories. These are:
 - Mainly black and mainly brown
 - Mainly mineral and mainly organic
 - High moor or Dead Sea
 - High moor or low moor
- In Europe, fango is applied to the body at this temperature, even in cases of acute inflammation.
 - 56° to 66°F
 - 24° to 32°F
 - 78° to 89°F
 - 104° to 115°F

Fill in the Blank

- Full-body fango applications can last between _____ and _____ minutes.
- When viewed under electron microscope, clay particles are about _____ times longer than they are _____.
- Kaolinite clay is generally _____ in color and was first mined in China.
- At the Piestany spa in Slovakia, the mud turns from brown to black when it is _____.

12

Thalassotherapy

Chapter Outline

A Brief History of Thalassotherapy

The Therapeutic Benefits of Seaweed for the Body

General Treatment Considerations

Contraindications

Sensitive Skin

Product Form and Application Considerations

Seaweed Odor

Cellulite and Cellulite Products

The Slimming Seaweed Cocoon Procedure

Session Start

Step 1: Exfoliation of the Posterior Body

Step 2: Application of a Cellulite Cream to Target

Areas of the Posterior Body

Step 3: Exfoliation and Cellulite Cream Application on the Anterior Body

Step 4: Application of Seaweed

Step 5: Cocoon

Step 6: Process—Massage the Face and/or the Feet

Step 7: Unwrap

Step 8: Application of Firming Products

Session End

The Seaweed Breast Treatment

Other Seaweed Treatments



SPA FUSION

INTEGRATION OF SKILLS

STUDY TIP: Quiz It!

SPA INSPIRATION: Dance Massage

CHAPTER WRAP-UP

Key Terms

Algae: Algae occur in all marine and terrestrial ecosystems of the world wherever there is water. The words *algae* and *seaweed* are often used interchangeably, which causes some confusion. Seaweeds are algae that have a particular growth form, but the term *algae* also includes a wide range of other terrestrial and aquatic organisms with different evolutionary histories.

Alginate: A substance found in seaweed that has therapeutic properties for skin and body and is often used as a thickening agent in cosmetic preparations.

Galvanic current machine: A machine that is used by estheticians in a facial treatment. It has two different uses depending on the polarity of the current that is used. When the working electrode is the negative pole, it is used with a disincrustation solution to soften blocked sebum in pores. When it is set on the opposite polarity (positive pole is the working electrode), it is used to soothe the skin and encourage the absorption of a water-soluble treatment product.

High-frequency machine: Machine that generates a rapidly oscillating electrical current that is transmitted through glass electrodes. The current produces heat in the skin, which stimulates circulation. It also produces ozone, which acts as a germicide to kill bacteria.

Minerals: Naturally occurring substances that play a crucial role in the body's metabolic processes. They are required by the body to function properly.

Mucilage: A gelatinous substance found in plants and animals that is extracted for cosmetic purposes from plants such as seaweeds. It is composed of protein and polysaccharides and is used to give cosmetics a creamy substance and to moisturize and protect the skin.

Polysaccharides: A class of long-chain sugars composed of monosaccharides that are often used in skin care as antioxidants and water-binding agents.

Seaweed: Multicellular, marine-based algae that fall into one of three main groups: the green algae (*Chlorophycota*), brown algae (*Phaeophycota*), and red algae (*Rhodophyta*).

Silicone: One of the elements present in seaweed that binds water to the skin and gives a silky feel when added to cosmetics.

Thalassotherapy: The use of marine environments and sea products, including seawater, sea mud, seaweed, and seafood, for healing and wellness.

Thalassotherapy is the use of marine environments and sea products, particularly seaweed, for healing and wellness. Joseph Conrad wrote, “The true peace of God begins a thousand miles from the nearest land.” In that single line, Conrad captured the magical, indescribable quality of the sea. The mystique of the sea may be one reason that treatments featuring seaweed are held in such high regard by spa clients. It is probable that the reliable results achieved by the use of seaweed in slimming treatments, revitalization treatments, esthetics, and relaxation treatments are the other reason for its popularity.

Seaweeds are multicellular, marine-based **algae** that may fall into one of three groups: green seaweed (*Chlorophycota*), brown seaweed (*Phaeophycota*), and red seaweed (*Rhodophyta*). Brown and red seaweeds are the most common types of seaweed used in cosmetic products or for spa treatments, although all seaweeds have some therapeutic value due to their high mineral content. Many seaweeds also have interesting forms of antimicrobial and other biological activity.

This chapter aims to give a brief history of thalassotherapy, to review the relevant research on the benefits of seaweed for the body, and to describe the use of seaweed in combination with other products such as cellulite creams. A slimming seaweed cocoon is described in step-by-step detail, whereas a seaweed breast treatment is demonstrated with a treatment outline. You are encouraged to use seaweed as the treatment product in many of the other services described in this book. Review the sample treatments at the back of the book for inspiration. For an overview of the types of seaweed that are used in thalassotherapy, see Table 12-1. To learn about a form of algae that is not a seaweed (*Spirulina*), see Broaden Your Understanding 12-1.

A Brief History of Thalassotherapy

The French recognized the therapeutic benefits of sea bathing in the early 1800s, and by 1824, they had set up facilities to warm seawater for treatments. In 1869, the term *thalassotherapy* (*thalassa* is the Greek word for sea)

was coined by Dr. de la Bonnardière. In 1960, the French Medical Academy officially defined thalassotherapy: “Thalassotherapie uses seawater, seaweed, sea mud or other sea resources and/or the marine climate for the purpose of medical treatment or treatment with a medicinal effect.” In France, thalassotherapy is covered by medical insurance as a standard treatment for sore throats, digestive problems, arthritis, musculoskeletal injury, respiratory ailments, developmental disorders in children, endocrine imbalances, and skin conditions.

Therapeutic techniques in French thalassotherapy include the following:

- Hydrotherapy using seawater
- Argotherapy, which uses seaweed packs on the body
- Fangotherapy, which uses sea mud packs on the body
- Eliotheary, the inhalation of aerosol-sized particles of seawater
- Kinesitherapy, which consists of floating in a relaxation pool filled with seawater
- Aquagym therapy, which is exercise in seawater
- Sea diets, which are diets rich in seaweeds and seafood

In the United States, thalassotherapy is most often used to firm, moisturize, and condition the skin. The American spa-going public may be familiar with the general benefits of seaweed for the skin but may not as yet be exposed to the benefits of seaweed for full-body wellness, revitalization, detoxification, and as an energy booster. As with fango, this is likely to change as spa menus continue to expand and substances once valued primarily in esthetics are accepted for their full range of therapeutic properties.

The Therapeutic Benefits of Seaweed for the Body

The different forms of thalassotherapy may be effective because seaweed and seawater contain significant concentrations of **minerals**, and seaweeds contain many useful bioactive compounds that are absorbed by the skin. It is helpful for the therapists to have a general understanding of the physiological actions of the main species of seaweed before they design thalassotherapy treatments. Empirical evidence, clinical studies, and research suggest that seaweed treatments can be used to support endocrine balance, support detoxification, support the elimination of excess fluid in body tissue, decrease the symptoms of fibromyalgia, decrease muscular pain, stimulate local circulation to the skin, boost general immunity, give an energy boost, and facilitate relaxation and the decrease of stress.

The studies on seaweed show that it contains large amounts of polysaccharides, which have a wide range of biological activities, including antithrombotic, anticoagulant, anticancer, and antiviral effects.¹ The minerals that seaweeds accumulate from seawater account for up to 36% of their dry weight. Seaweeds have high concentrations of

TABLE 12-1 Algae at a Glance

TYPES	BOTANICAL	COMMON	PROPERTIES	INDICATIONS	CAUTIONS
Green (<i>Chlorophycota</i>) 7,000 species 800 of these are “seaweeds”	<i>Ulva lactuca</i>	Sea lettuce	Antiviral, high vitamin C content, anti-inflammatory, demulcent	Inflammation, muscle soreness or pain, fibromyalgia, stress, low energy, low immunity, others	Skin irritation possible but unlikely Iodine or shellfish allergies
	<i>Evernia prunastri</i> (lichen)	Oakmoss	Antiseptic, demulcent	Most often used as an absolute for base note in fragrances	6–12 drops maximum for a full-body treatment
Blue-green (<i>Cyanophycota</i> or <i>Cyanobacteria</i>) Not seaweeds	<i>Spirulina maxima</i> <i>Spirulina platensis</i>	<i>Spirulina</i>	Anti-inflammatory, stimulating, skin firming, moisturizing	Detoxification treatments, slimming treatments, low energy, stress, others	None
Brown (<i>Phaeophycota</i>) 3,000 species Most are seaweeds	<i>Laminaria</i> spp. <i>Sargassum</i> spp. <i>Fucus</i> spp. <i>Ascophyllum</i> spp.	Kelps Wracks	Wound healing, hair growth, stimulates metabolism detoxifying, aids cellular exchanges, revitalizing, stimulates circulation and lymphatic flow, heats the body	Detoxification treatments; slimming treatments; muscle pain or tension; low energy; stress; burnout; dry, rough, dull, saggy, dehydrated or congested skin	There is some concern that full-body treatments using brown algae will overstimulate the thyroid or affect thyroid medications Iodine allergies
Red (<i>Rhodophyta</i>) 8,000 species Most are seaweeds	<i>Chondrus crispus</i> <i>Gelidium amansii</i>	Carrageen Agar-agar (also known as Japanese isinglass)	Anti-inflammatory, circulatory stimulant, demulcent, stabilizer used in cosmetic emulsions	Detoxification treatments; low energy; stress; slimming treatments; for dry, rough, dehydrated, or irritated skin	Skin irritation possible but unlikely Iodine or shellfish allergies

vitamins A, B₁, B₂, B₃, B₅, B₁₂, C, D, E, and K. They also contain polyphenols and carotenoids, which play a role in protecting the body from oxidative stress.

A polysaccharide compound, isolated in 1994 from *Ulva*, a green marine algae, has significant antiviral activity, reducing replication rates of some strains of human and avian influenza viruses.² In Scottish folk medicine, the thin mucilaginous nature of *Ulva* fronds made it useful as a cold compress for nosebleeds, migraines, burns, sores, and cuts.



Broaden Your Understanding 12-1

SPIRULINA

Spirulina is a blue-green alga (*Cyanophycota* or *Cyanobacteria*) that is not a seaweed but is notable for its use as an agent to firm and moisturize the skin. It also has a wide range of biological activity with actions including anti-cancer,^{5,9,14} immunostimulating,^{6,9,14} antidiabetic,^{7,9,15} anti-inflammatory,^{8,9,11} antioxidant,⁸ membrane-stabilizing,⁸ antiatherogenic,¹³ anti-allergy,^{9,11} blood vessel-relaxing,¹⁶ antiviral,¹⁴ antiarthritic,¹² blood lipid-lowering,¹⁷ and antianemic⁹ effects. It has been used to treat chronic hepatitis⁸ and herpes simplex virus type 2.¹²

Research showing that *Ulva* produces a biologically active steroid (3-O-beta-D glucopyranosyl-stigmasta-5, 25-diene) that reduces edema when applied topically supports this traditional use.³

Brown seaweed, such as *Laminaria*, *Sargassum*, *Fucus*, and *Ascophyllum* species, stimulates metabolism, raises body temperature, and affects cell membrane transport, facilitating detoxification and contains iodine, which influences thyroid activity.¹⁸ Brown seaweeds also contain alginate, a jelly-like carbohydrate used for its water-holding, gelling, emulsifying, and stabilizing properties. Alginate dressings are used on epidermal and dermal wounds to give a moist environment that leads to rapid granulation and healing.¹⁹ Alginate has also been used as a medium for transdermal drug delivery systems²⁰ and to regulate abnormal collagen metabolism.²¹

Species of another seaweed genus, *Sargassum* spp. (known as *hai zao* in Chinese), have been used in traditional Chinese medicine since the eighth century AD. In Chinese medicine, it is mainly used for the treatment of goiter due to its action on the thyroid, which helps to regulate metabolism. Other uses include the treatment of edema, other thyroid disorders, and pain from inflammation. Herbalists use *Sargassum* to promote weight loss, but long-term use is avoided due to its action on the thyroid. The literature suggests that *Sargassum* has a mild diuretic effect, is effective against herpes simplex type 1 and 2,²² can be used as a topical antifungal,²³ has

liver-protecting capabilities,²⁴ and contains antioxidants that protect the body from damage caused by free radicals, so it can slow the aging process.²⁵ To learn about the beneficial effects seaweed can have on the skin, see Broaden Your Understanding 12-2.

General Treatment Considerations

Before offering thalassotherapy treatments, it is important to understand the contraindications to seaweed, the different forms of seaweed products, how to dilute seaweed

products for clients with sensitive skin, and how the odor of seaweed may affect your business. Because a slimming treatment is described in this chapter, some notes on cellulite and cellulite products are also included here.

Contraindications

People with vascular problems such as high or low blood pressure, who are pregnant, or who have a fever should only be given this treatment if first approved by their physician. Seaweed tends to have an aggressive effect that accelerate detoxification, which increases the load on the



Broaden Your Understanding 12-2

THE BENEFITS OF SEAWEED FOR THE SKIN

France is the largest market for seaweed used in cosmetics with an estimated 5,000 tons of wet seaweed being harvested and processed annually to meet the demand.²⁶ The vitamins, minerals, amino acids, sugars, lipids, and other components of seaweeds, such as alginic acid, **silicone**, **alginates**, agar-agar proteins, cellulose, **mucilage**, and fucosterol, make them useful for a variety of cosmetic products. For example, seaweed extracts react with skin proteins to form a protective gel on the skin's surface that reduces moisture loss.²⁷ Seaweed also appears to promote local vasodilatation and increased circulation of blood and lymph flow. This may be the basis for the widespread use of seaweeds to treat cellulite. Seaweed cleanses, purifies, tones, firms, softens, and hydrates the skin. It is recommended for most types of skin due to its balancing and soothing effects. It is used in acne treatments for its antibiotic and anti-inflammatory properties. It can also be used on clients with dry skin to retain moisture, stimulate circulation, and promote nutrient exchange. When used on mature skin, its firming and toning action has a positive effect on the appearance of fine lines and wrinkles. Zinc, a mineral found in most seaweed, acts as a biocatalyst. It is useful for stabilizing the skin by balancing glandular secretions. Commercially, zinc creams are used to treat acne, to give protection against exposure to the sun, and to regulate the sebaceous glands.

There is a large amount of research on the uses of seaweed for skin treatment. For example, crinitol, an acyclic diterpene alcohol found in *Sargassum tortile*, a brown marine alga, is effective against gram-positive bacteria including *Propionibacterium acnes*, the bacterium associated with inflammatory acne.²⁸ Interestingly, the activity of crinitol was shown to increase in the presence of antioxidants.

In a study conducted in Japan and published in the *Journal of Cosmetic Science*,²⁹ *Fucus vesiculosus* extract

(1% in a gel) applied topically to one cheek twice daily for 5 weeks decreased skin thickness and increased skin elasticity. With age, cheek skin usually increases in thickness and its elasticity decreases, leading to wrinkles and sagging skin. Extracts of *Fucus vesiculosus* also aid the wound contraction and the granulation process³⁰ and show in vitro antibiotic activity against *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Escherichia coli*.³¹ An absolute (alcoholic extract) of *Fucus vesiculosus*, a brown marine alga, can be obtained commercially from some aromatherapy suppliers and mixed into creams and lotions by the therapist.

Ascophyllum nodosum, another species of brown seaweed, contains large amounts of fucoidan, a sugar (alpha-L-fucose) based polysaccharide that retains moisture and has immunostimulating, anticoagulating, and anti-aging activity.³²⁻³⁵ Two separate French studies published in *Biomedical Pharmacotherapy* show that fucose and fucose-rich **polysaccharides** penetrate the skin, decrease free radical scavenging, and increase the cell proliferation to slow down the aging of skin cells.^{34,35} French women traditionally used *Ascophyllum nodosum* extracts to increase hair growth and soften rough and damaged skin.³⁶

Red seaweed such as carrageen extracted from Irish moss (*Chondrus crispus*) and agar-agar (*Gelidium amansii*; note: agar-agar is derived from the Malaysian word for seaweed) are good emulsifiers, balancers, and lubricants.³⁷ A study conducted by the Estée Lauder company showed that sulfated polysaccharides from red micro-algae have anti-inflammatory properties when applied topically to the skin.³⁸ The anti-inflammatory effects of red seaweed are recorded folk remedies from Ireland to Malaysia. For example, the Celts used Irish moss for sore throats and to soothe chapped skin, whereas Malaysians used agar-agar for burns and skin irritation.

cardiovascular system and may cause complications in weakened individuals.

Brown seaweeds have high concentrations of iodine and may overstimulate the thyroid gland. In a healthy person, this usually results in a feeling of increased energy and well-being at the end of the treatment. For those with thyroid disorders or who are taking thyroid medications, a full-body treatment may throw the body out of balance. Until more research is available, it is best to err on the side of caution and avoid giving full-body brown seaweed treatments to clients with thyroid disorders. Choose green or red seaweed treatments instead or only apply the seaweed to one area of the body as in a seaweed back treatment.

When taking the client's health history, it is important to check for shellfish or iodine allergies. If a client is allergic to either shellfish or iodine, he or she should not receive a seaweed treatment as a dangerous allergic reaction could result.

Sensitive Skin

In a seaweed cocoon, the trapped heat from the body causes perspiration and may make sensitive skin more susceptible to irritation. If the skin type of the client is fair or prone to sensitivity, choose a green or red seaweed product and avoid using brown seaweed. Alternatively, use a gentler aloe gel-based product because it is milder in action than powdered seaweed. Seaweed products can also be diluted by adding kaolin clay or a fixed oil such as sunflower or sweet almond to the mix. Many premixed products cause irritation because poor quality essential oils have been added to “improve” the smell of the seaweed product. To avoid this problem, buy unscented products that are as pure as possible and add therapeutic-grade essential oils

to scent them if desired. If skin irritation occurs during a seaweed treatment, remove the seaweed product with cool towels and apply a fixed oil such as sunflower to the body in a heavy layer. Do not massage the oil in but, instead, remove the excess oil with more cool towels. If a shower is available, the client should rinse in cool water until the irritation subsides.

You may want to protect your hands from strong seaweeds, cellulite creams, and firming creams by wearing vinyl gloves while applying these products. Your hands may become overexposed to such products during the course of a day at the spa so they are prone to sensitivity and even contact dermatitis.

Product Form and Application Considerations

Cosmetic products containing seaweed take many forms. The seaweed may have been dried and powdered, blended as an extract into a lotion or gel base, dried and mixed with sea salts for hydro soaks, extracted for use in body mists and facial toners, or mixed with paraffin for easy removal. Absolutes (solvent extracts) of *Sargassum*, *Fucus*, and *Laminaria* species can be purchased from some aromatherapy suppliers and added to creams, oils, gels, cleansers, and other products for easy use. These are highly concentrated products and should be used cautiously.

The type of product chosen for a spa service usually depends on the equipment available at the spa and the removal method you plan to use (Fig. 12-1). For example, a clinic without a shower may choose a gel-based seaweed for easy cleanup and quick hot towel removal. A spa with a Vichy or Swiss shower may choose powdered seaweed for the treatment. Powdered products are thicker when they are mixed up for use and stick to the body during hot towel removal. They are time-consuming and difficult to remove without



FIGURE 12-1 Comparison of seaweeds on the body. This figure shows the different consistencies of seaweed products that have been applied to the body. It is easy to see that a gel-based product would be easier to remove than a powdered product mixed with water. (A) Gel seaweed. (B) Powdered seaweed mixed with kaolin clay. (C) Powdered seaweed mixed with oil.

TABLE 12-2 Seaweed Mix Ups^a

NAME	RECIPE	PROPERTIES	USES
Sea milk	Add ½ cup of milk powder to every ½ cup of seaweed powder. Use a small amount of hot water to dissolve the mixed powders. Add ½ cup of plain body lotion to the mix. Now add warm milk, cream, or buttermilk to the mixture until the desired consistency is reached.	Relaxing, soothing, calming, softening	Full-body application for sensitive skin, breast treatment, scalp and neck treatment
Ocean oil	Sixteen ounces of a cold pressed vegetable or nut oil is warmed on the stove. Two tablespoons of seaweed powder is dissolved into this oil and heated on a low temperature for 20 minutes while stirring constantly. The mix is placed in a glass bottle and shaken each day for a week. The oil is strained through a coffee filter. Essential oils can be added to scent this product.	Stimulating, firming, circulatory stimulant, energizing, revitalizing, immune boosting	Full-body massage or as the massage oil in a larger seaweed treatment; as a product that can be applied to the skin before a therapeutic shower (Vichy, Swiss) or soaking treatment
Peppermint sea twist	Six drops of peppermint essential oil is added to gel seaweed for a spot treatment or full-body application.	Stimulating, refreshing, cooling, revitalizing, analgesic, circulatory and lymphatic stimulant	Foot mask for tired feet, spot treatment for sore muscles, spot treatment for cellulite, full-body cocoon for refreshment
Sea shea	Melt shea butter in a double boiler until it is liquid. Mix powdered seaweed with warm oil until it dissolves and then add it to the shea. Allow the shea to cool while it is whipped with a wire whisk or in a blender. Use 1 tbsp of powdered seaweed to every cup of shea butter.	Relaxing, revitalizing, softening, calming, gentle lymph and circulatory stimulant	Useful as a thick, after-treatment body butter, as a massage product, or as the treatment product in a full-body cocoon, neck and scalp treatment, or hand and foot treatment
Marine minerals	Gel seaweed is mixed with kaolin clay until a creamy, rich treatment product is produced. Essential oils can be added to the mix if desired.	Stimulating, slimming, detoxifying, softening, revitalizing, relaxing	Full-body cocoon, back treatment, foot treatment, breast treatment

^aUsually, seaweed powder is mixed up with warm water, but a number of useful treatment products can be made by mixing seaweed powders with different liquids or oils. Each of these recipes can be used with any type of seaweed powder. The reader will notice that the exact amount of seaweed or liquid is not indicated. This is because different seaweed powders have been processed differently and mix up differently. The reader is advised to start with 3 tbsp of seaweed powder for a spot treatment and 1 ½ cups of seaweed for a full-body treatment. More seaweed may be needed depending on the size of the client. The different liquids will be added until the desired consistency is reached.

a shower. That said, there are ways to mix up powdered seaweed to make it easier to remove. Table 12-2 gives some ideas for mixing up powdered and gel seaweed for hybrid treatment products.

There are several seaweed gels on the market that are designed to be applied with a brush in a generous layer and then left to absorb during a cocoon. At the end of the wrap phase, the gel is simply massaged into the skin with a finishing product rather than being removed. These products are simple to use and give satisfying results. Try out a number of different products to determine their ease of delivery and results before finalizing your treatment outline.

If a soaking tub or hydrotherapy tub is available, bathing in seaweed solutions is a relaxing way to experience thalassotherapy. Seaweed soaks remineralize the body, stimulate both circulation and metabolism, soften and cleanse the skin, and leave the body feeling energetic and revitalized.

Seaweed is usually heated before being applied. As with fango products, seaweed products should not be mixed, heated, or stored in metal containers because they may react chemically with the metal.

Seaweed Odor

Seaweed has a strong smell that some people like (“Oh, it smells like the ocean in here!”) and some people dislike (“That smell is giving me a headache and making my stomach upset!”). The smell is potent and may spread beyond the treatment room. This can be a problem in a small, busy clinic and should be considered by the owner before investing in the equipment and products needed to deliver seaweed treatments. Some therapists add essential oils to seaweed products to “improve” the smell and to add to the therapeutic properties of the treatment.

Adding essential oils just to mask the smell is not usually very practical because a high concentration of essential oil is needed.

Cellulite and Cellulite Products

Before offering a slimming body service, it is useful to understand something about cellulite and why it occurs. *Cellulite* is a cosmetic term that refers to uneven, dimply areas of skin found on the thighs, hips, and buttocks of women. Although the formation of cellulite is usually found in mature women, it can begin as early as puberty. This condition is not restricted to overweight women but can occur in very slim women too.

Three fat layers lie directly below the epidermis and dermis of the skin. The most superficial of these layers, known as the subcutaneous fat layer, has specialized fat storage chambers. These chambers are created by connective tissue that anchors the skin to muscle tissue. The characteristic dimpling of cellulite is caused by weakened connective tissue, which may be linked to increased levels of estrogen. When the fat cells swell against the weakened connective tissue, a bulge occurs, creating the dimpled appearance of cellulite. Men rarely develop cellulite because they store fat differently than women. In women, the fat storage chambers are organized into broad vertical chambers. Men store fat in smaller chambers that are diagonally oriented and less likely to bulge.

It is also likely that poor lymph and blood flow contributes to the problem. As the fat cells swell, they place surrounding structures under pressure. This causes increased permeability of capillary walls, leading to localized fluid accumulation. If lymphatic flow is sluggish, this excess fluid is never removed and causes connective tissue strands to stiffen, pulling down on their anchor points and further increasing the bulging appearance of the skin.

There has been a great deal of research carried out on methods to reduce cellulite by nonsurgical means. Treatments include intensive massage techniques, often with electrical suction devices; topical creams; compression wraps; and intramuscular injections. However, there is little evidence for the effectiveness of these treatments, making it ethically difficult to sell them to clients.

Although it is difficult to reduce cellulite, its appearance can at least be improved. Cellulite creams are a popular and accepted means of improving the appearance of cellulite. These products are often used with tension wraps (described in Chapter 9), which compress the tissue so that it appears slimmer for a period of time after the wrap is removed. Sometimes, cellulite or firming products are activated with heat and applied underneath very warm treatment products such as Parafango or paraffin.

Cellulite and firming creams contain ingredients that stimulate local circulation and heat the tissue. The most widespread ingredient in cellulite and firming creams is aminophylline (its chemical cousin, theophylline, is also

used). In vitro, aminophylline causes fat cells to shrink, which has led to its popularity.⁸

Another trendy ingredient is yohimbine from the bark of *Pausinystalia johimbe*, a tree that is grown in West Africa along the coast of Nigeria and Gabon. Yohimbine is well known as a male sex stimulant and is often added to bodybuilding formulas because compounds in its bark are precursors of testosterone. The compounds in yohimbine increase local circulation to the skin, which may help to break down fatty deposits. Products containing yohimbine often alarm therapists because some cause the skin to turn fire-engine red. This is not skin irritation, but the skin will feel very warm for about 20 minutes after the application. Cellulite and firming creams that increase local circulation make very effective sore muscle creams, so they can be used as treatment products in services for athletes.

The Slimming Seaweed Cocoon Procedure

A full-body seaweed treatment is indicated for a wide range of conditions, including low energy, low immunity, stress, muscle soreness, fibromyalgia, detoxification, relaxation, body slimming, and cellulite reduction. Both the hot sheet wrap procedure and the cocoon procedure described in Chapter 9 (Body Wraps) can be used with seaweed as the treatment product to meet the general treatment goals described previously. The procedure explained in this chapter aims to help define the contours of the body, so includes a cellulite product and skin-firming product.

Slimming treatments are popular with clients who are preparing for a big event and want to look their best in tight-fitting clothing or a special outfit such as a prom dress. This treatment can also be marketed to men who want to sculpt their physique, especially bodybuilders in the last stages of preparation before a competition. In any case, this service will also support full-body relaxation and revitalization. The slimming seaweed cocoon overview in Treatment Overview 12-1 and Figure 12-2 provide a snapshot of this service.

Session Start

The client begins the treatment in the prone position and bolstered as he or she would be for massage. A warm pack (hydrocollator, flax seed pack, etc.) is placed on the lower back to warm the area and enhance the client's experience.

Step 1: Exfoliation of the Posterior Body

Any type of exfoliation treatment can be used, but because the treatment goals include detoxification, dry skin brushing is appropriate. An exfoliation with sea salts is also stimulating and maintains an "ocean" theme. Chapter 8 (Exfoliation Treatments) describes exfoliation techniques

Treatment Overview 12-1: The Slimming Seaweed Cocoon Overview



Indications

To slim the contours of the body, to support natural detoxification, to decrease stress, to promote revitalization and boost energy

Contraindications

High or low blood pressure, varicose veins, poor circulation, thyroid disorders or thyroid medications, shellfish or iodine allergies, sensitive skin, pregnancy, heart conditions, thrombosis or deep vein thrombosis

Supplies for the Treatment Table Setup (from the bottom layer to top layer)

1. Blanket (wool or cotton) placed horizontally across the table so that the long edges are at 90 degrees to the sides of the table
2. Thermal space blanket placed horizontally across the table (optional)
3. A plain flat sheet placed with the long edges parallel to the long edges of the table (if the product needs to be removed in a dry room)
4. A plastic sheet placed at horizontally across the table
5. One bath towel placed horizontally at the top of the table
6. One bath towel placed horizontally at the bottom of the table
7. Disposable undergarments or dry hand towels to act as a drape
8. Bolster

A Fomentek might be used under the massage sheet if additional warmth is needed.

Supplies for the Work Table Setup

1. Exfoliation product or dry brushes
2. Cellulite cream
3. Seaweed warming in a double boiler
4. Application brush or vinyl gloves
5. Firming product
6. Skin toner
7. Soda cooler
8. Hot, moist towels
9. Aroma mist

Procedure

1. Exfoliate posterior body areas.
2. Apply a skin toner to the posterior body.
3. Massage cellulite cream into target areas of the posterior body.
4. Turn the client supine.
5. Exfoliate anterior body areas.
6. Apply a skin toner to anterior body areas.
7. Massage cellulite cream into target areas of the anterior body.
8. Apply seaweed to the body using the sit-up method.
9. Cocoon and massage the face, feet, or hands while the seaweed is processing.
10. Remove the seaweed with hot, moist towels.
11. Apply firming cream to the body.
12. Aroma mist.

in step-by-step detail. As each body area is exfoliated, a skin toner is applied to balance the pH of the skin. This is especially important with seaweed treatments because it helps to prevent skin irritation.

Step 2: Application of a Cellulite Cream to Target Areas of the Posterior Body

After exfoliating the posterior body, a cellulite cream is massaged into target areas such as the posterior thighs, gluteals, and low back. Some therapists advocate the use of intensive massage in these areas based on the idea that they break down fat deposits and move them out of the tissue. How exactly the fat deposits are moved out of their connective tissue chambers is not clear unless the connective tissue is damaged. Some spas or therapists buy expensive machines that use a suction massage to lift and manipulate the tissue. Local circulation is visibly increased but whether this results in a decrease of cellulite is unproven. Intensive or painful massage techniques are not recommended because they could bruise the client, lead to varicose veins, or cause undue discomfort. Good results are achieved with standard massage strokes and the application of seaweed over the top of the cellulite cream. To view a video demonstration of product application, visit thePoint.

Step 3: Exfoliation and Cellulite Cream Application on the Anterior Body

Turn the client into the supine position and treat the anterior areas of the body. Exfoliate each area; apply a skin toner; apply a cellulite cream; and then massage the areas of the anterior thighs, abdominal area, and upper arms.

Step 4: Application of Seaweed

Use the sit-up method to apply seaweed to both the anterior and posterior body. First, ask the client to bend his or her knees so that you can apply seaweed to both the anterior and posterior sides of the legs. The legs are flattened against the plastic body wrap, and the client is asked to sit up (remove the bolster first). Apply seaweed to the back and gluteals and ask the client to lie back down. Apply seaweed to the abdominal area, upper chest, and upper arms and then wrap the client in plastic.

Step 5: Cocoon

Pull the plastic wrap up and around the client and tuck it in and then wrap the client in the blankets. The bath towel at the top of the massage table is wrapped around the client's head in a turban drape or tucked into the top of the cocoon. Wrap the feet with the preset towel at the bottom of the massage table. Heat lamps or flax seed warm packs can be used for additional warmth if they are needed.



FIGURE 12-2 The seaweed slimming treatment. **(A1 and A2)** Application of a treatment ampoule. Massage techniques will be various and firm but not painful for the client. **(B)** Application of seaweed. This product is a powdered seaweed that has been mixed first with water and then with an emollient cream to make it easier to remove in a dry room. **(C)** Process during the slimming cocoon. Massage the face and/or mist the client with light aromatherapy scents. **(D)** After removing the seaweed and transitioning the client from plastic body wrap to the massage sheet, apply a firming cream to the body with massage strokes.

Step 6: Process—Massage the Face and/or Feet

While the client is processing in the cocoon, provide a relaxing face massage using a high-quality face cream. Offer the client a sip of water or herbal iced tea through a flexible straw and mist him or her with an aroma mist or spring water. Massage the feet at the conclusion of the face massage. During any type of cocoon, enhancers such as face massage, hot stone foot massage, reflexology, a scalp treatment, or other special extra can be used to fill out the treatment and make it exceptional for the client.

Step 7: Unwrap

To remove the wrap, first take off the blankets. You now have two options for removing the plastic based on the equipment available at the practice.

Option 1: Leave the client loosely wrapped in the plastic and take him or her to a shower. If the shower is outside the treatment room, drape the client with a bathrobe or sheet. Take the plastic from the client as he or she steps into the shower and throw it away. Put massage sheets on the massage table while the client is showering.

Option 2: If there is no shower, the plastic sheeting will need to be removed completely from underneath the client as the client is cleaned off with hot towels. To remove a plastic sheet, a clean sheet will need to have been placed under the plastic when the table was made up.

Remove the product from the client's arms, upper chest, and abdominal area and ask him or her to hold onto the breast drape and sit up. Remove the product from the client's back and the posterior arms. Roll up the plastic sheet so that the dirty side is rolled in until it sits as close to the gluteals as possible and ask the client to lie back down (onto the clean preset massage sheet). Move down to the lower legs and wipe the feet with a hot towel and ask the client to bend the knees and hold the feet up. Roll up the dirty side of the plastic (that is underneath the client's feet). Place the client's clean feet on the massage sheet, which is underneath the plastic (the knees are still bent). Remove the spa product from both legs with hot towels and roll the plastic up as high as possible under the gluteals. Place the clean legs flat on the massage sheet and cover the client with a sheet or towel for warmth. The client then lies back down on the massage sheet and slightly lifts his or her hips so that the plastic can be removed. You want to work quickly and efficiently during product removal because the client must stay alert during this entire process and if you take too long, the session will feel dull and uninspired. The client is now draped with a massage sheet for the rest of the treatment.

Step 8: Application of Firming Products

Some firming products are so strong that they are only applied to target areas of the body, whereas others are meant to be applied to the entire body. Sometimes, the products are combined in a treatment. The strong product is applied to target areas, and then the rest of the body is treated with a gentler product. Read the directions and cautions on any firming products carefully to ensure that they are used correctly.

Session End

After the application of a firming product, use an aroma mist to signal the end of the treatment and to fill the room with a refreshing scent.



SANITATION

During the cleanup for a cocoon, it is important to spray the thermal space blanket with alcohol and allow it to air dry before putting it in a closed cabinet. Reusable mixing bowls, application brushes, and the soda cooler should be washed with hot, soapy water and sprayed with alcohol. Product bottles that were handled during the treatment should also be wiped down with alcohol before they are put away.

The Seaweed Breast Treatment

The breast, which has no muscle tissue, is composed of glandular tissue surrounded by fat. It is sensitive to estrogen, progesterone, and prolactin levels during the menstrual cycle or pregnancy. As elsewhere in the body, an intricate system of blood and lymphatic vessels bring nutrient-rich blood to breast tissues and carry metabolic wastes away for elimination. When breast tissue is compressed or restricted, usually by bras, metabolic wastes may build up in the tissue.⁴⁰ There is some evidence that this may cause a woman to experience greater tenderness during menstruation or increase a woman's chances of developing breast cancer.³⁹

In the United States, breast massage and spa treatments for improving breast health generate a somewhat weary reception from therapists and clients alike. This may be because massage was once linked to prostitution, and therapists worry that their professionalism will be called into question if they give a treatment for breast health. Breast massage is often avoided in massage schools due to state laws or discouragement from school accreditation bodies. Some states allow therapeutic breast massage with informed client consent, whereas others have legislation that requires therapists to take an advanced training and certification. Many men are rightly concerned about providing breast massage in cross-gender spa treatments. Even with informed client consent, male therapists are at risk in such a setting.

The American public is uncertain of the benefits of breast massage and breast treatments for disease prevention. Services aimed at improving the appearance of breast tissue are often more readily accepted. Therapists are rarely given training in breast massage at massage schools, so they have to seek out specialized instruction if they want to learn. Specialized training is important because it covers a wide range of topics from the psychology of touch and good ethical practice to proper lymphatic drainage and the anatomy of the structures involved. *Breast Massage*, written by Debra Curties, is a particularly helpful guide for the massage therapist interested in learning more.⁴¹

Although many spas do not offer treatments that involve working with breast tissue, some spas do, so it is important that you know how to approach this type of service professionally. When working with breast tissue in a spa setting, avoid the nipples and areola and use firm, steady pressure at all times. Make sure that you check the laws in your state and obtain the client's *written* consent before offering a breast treatment.

The seaweed breast treatment overview given here (Treatment Overview 12-2) presents an outline for novice therapists to help them understand the treatment steps that might be used in such a service. This service is advanced, so specialized training in breast massage is recommended for novice therapists to build a solid foundation of knowledge.

Treatment Overview 12-2: The Seaweed Breast Treatment Overview



Indications

To encourage breast health, to decrease stress, to firm and tone the breast tissue

Contraindications

Iodine allergies, broken or inflamed skin, high blood pressure, pregnancy or nursing, fever or illness, current breast cancer (unless the therapist has an advanced understanding), lymphatic insufficiency (unless the therapist has an advanced understanding)

Supplies for the Treatment Table Setup (from the bottom layer to top layer)

1. Massage sheet
2. Top massage sheet
3. Blanket or bath sheet for warmth
4. Bolster
5. Pillow for the client's head

Supplies for the Work Table Setup

1. Plastic body wrap cut to fit over the upper chest
2. Cream cleanser
3. Gentle exfoliation product
4. Skin toner
5. Cosmetic sponges
6. Essential oil support lotion
7. Seaweed warming in a double boiler
8. Soda cooler
9. Hot, moist towels
10. Vinyl gloves
11. Aroma mist

Procedure

1. Steam the breasts and upper chest with a professional steamer or with hot, moist towels.
2. Cleanse the area with a cream cleanser; remove the cleanser with hot, moist towels.
3. Exfoliate the area; remove the exfoliation product with hot, moist towels.
4. Apply a skin toner to the area.
5. Apply seaweed to the area.
6. Cover the area with plastic and a blanket.
7. Massage the hands, feet, or face.
8. Remove the seaweed with hot, moist towels.
9. Provide breast massage (optional—with written consent only)
10. Apply a skin toner to the area.
11. Apply an essential oil support lotion to the area.
12. Aroma mist.

Essential oil support lotion: 1 oz plain lotion, lavender (3 drops), grapefruit (5 drops), juniper berry (2 drops), frankincense (4 drops), lemon (4 drops)

Experienced therapists might use this overview as a starting point when designing an original breast service. The goals of this treatment are to tone breast tissue and to improve breast health by increasing local circulation and lymph movement. An esthetician would add treatment steps for smoothing and moisturizing the skin to improve the appearance of the breasts. This outline is meant to be used as a wellness treatment rather than an active therapy for a diagnosed disease. Therapists with an advanced understanding of breast cancer or other serious breast conditions may include seaweed or therapeutic mud in their treatments to stimulate lymphatic drainage and the elimination of metabolic wastes from breast tissue. It is important to recognize that a breast treatment may be against the law. It is the therapist's responsibility to be aware of the relevant laws, regulations, and restrictions that apply in the state where he or she practices.

Other Seaweed Treatments

You are encouraged to try out seaweed products in a number of the other treatment outlines offered in this book. For seaweed back treatments or neck and scalp treatments, follow the appropriate outlines in Chapter 11 and substitute seaweed for fango. For a seaweed foot service, follow the outline for a basic foot treatment in Chapter 10 and use seaweed as the treatment product. Consider using a seaweed gel with hot stone massage to bring clients the rejuvenating qualities of both of these treatments. In this case, the gel is used instead of massage oil. Seaweed powders can be blended with sea salts to offer in the gift store as an energizing soaking product for home use. Seaweed is also used in facials, which are described and shown in Broaden Your Understanding 12-3.



Broaden Your Understanding 12-3

WHAT IS A FACIAL?

Currently, the most popular treatment offered at spas is massage. The second most popular treatment is a facial. In most states, facials are outside the scope of practice of a massage therapist and can only be given by a licensed or certified esthetician. Although massage therapists will not usually give a facial, they may help to inform clients of the benefits of facials, which will help to sell additional services for the spa.

Each facial is tailored to meet the skin type and specific needs of the client. The overall goal of a facial is to deep clean the pores, remove impurities from the skin, nourish and condition the skin, and improve or normalize skin function for better skin health. The session begins with a consultation and an analysis of the client's skin. This may be done with a Wood's lamp, a fluorescent light that is used to identify the skin type. Next, the skin will be cleansed, steamed, and exfoliated before ripe pimples or other blemishes such as comedones (blackheads) and milia (whiteheads) are

extracted manually. This step may include the use of a disincrustation solution and a galvanic machine. The disincrustation solution is an alkaline product that helps to soften hardened sebum in the pores. A **galvanic current machine** may be used to help the solution penetrate the skin. The facial mask is applied to further draw impurities from the skin or to nourish and recondition the skin after it has been deep cleaned. Seaweed is perhaps the most beneficial natural product that might be used in a facial mask because of its ability to improve the moisture content of the skin, tone and firm tissue, and stimulate nutrient exchange in the skin. Sometimes, a galvanic current machine will be used to encourage the absorption of a nutrient-rich, water-soluble treatment product. A **high-frequency machine** may also be used. The ozone generated by this type of current has germicidal properties and helps to kill bacteria on the skin. The facial usually ends with the application of a moisture-rich finishing cream.



Skin analysis.



Cleanse, exfoliate, and massage.

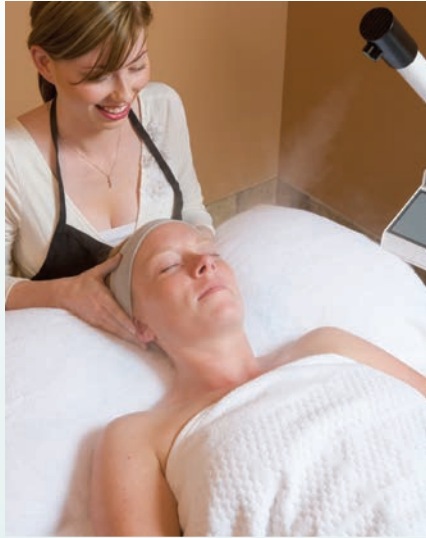


Steam.



Broaden Your Understanding 12-3

WHAT IS A FACIAL? (CONTINUED)



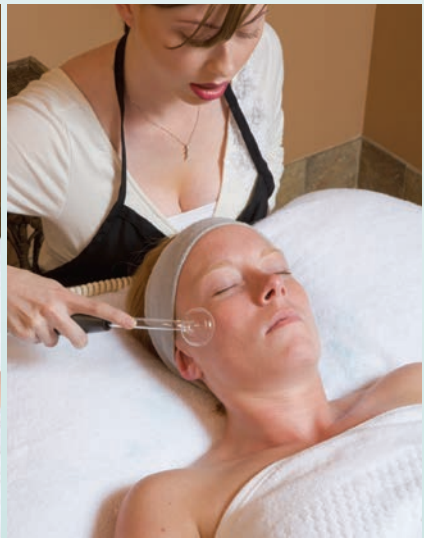
Galvanic current.



Extractions.



Treatment mask.



High frequency.

SPA FUSION

INTEGRATION OF SKILLS



STUDY TIP: Quiz It!

Visual learner: For this chapter, pretend that you are the instructor writing a quiz on thalassotherapy. For each main heading in the chapter, write one quiz question on a main point. Highlight the answer to your question in the body of the text.

Auditory learner: Make a testing tape for this chapter. As you read through each section, create a test question from the material and read it into a recorder. After each question, leave 6 seconds of blank space and then record the answer. When you finish reading the chapter, listen to your tape and try to answer your questions during the 6-second delays.

Kinesthetic learner: For each chapter section, write a quiz question, but do not write the answers to your questions. When you have finished, take the quiz. Look up the answers to any questions you cannot easily answer.

SPA INSPIRATION: Dance Massage

One of the things that make a great spa treatment is the quality of the massage that is delivered during the session. You want your massage to flow! Flow refers to the fluid quality of your strokes. The speed of the strokes, the amount of body area covered by strokes, the depth of strokes, and the overall rhythm all contribute to flow. A fun way to develop your flow is to practice with dance massage. Pick out 10 favorite songs in any style of music (hip hop, alternative, jazz, pop, classical, new age, rock, country, etc.)—any style is fine as long as you like the songs (your practice client does not have to like the music—this exercise is for you as the therapist). Then play all 10 songs in a row while giving a massage to a friend, family member, or classmate. The goal is to infuse the massage with the quality of the music. What happens to the massage during a song that is sad and haunting? How does the quality of strokes change? What happens to the massage during a song that is fast or aggressive? Each song communicates something different and affects the massage in a new way. Do not judge whether a song is right for a massage—that's not the point. The point is to feel the music and let it guide your massage as you explore the flow. Therapists often find that listening to music while providing massage improves the flow of the massage and the quality of the strokes. Go with it! Have fun!

CHAPTER WRAP-UP

Thalassotherapy is a broad term for many different types of treatments that are based on sea products or seawater. It includes seawater hydrotherapy, the application of seaweed or sea mud packs, exercise in seawater, relaxation by floating in seawater, diets rich in seaweed or seafood, and even the inhalation of aerosol-sized particles of seawater. You will find that seaweed has many benefits for both body and skin, providing a number of treatment options that are possible to deliver in a dry room setting. You will also find that adding seaweed treatments to your menu of services allows you to tap into your creative side and the fresh, uplifting, and magical qualities of the sea.

REVIEW QUESTIONS

Multiple Choice

- The different forms of thalassotherapy may be effective because seawater contains a concentration of:
 - Mica crystals
 - Essential oils
 - Analgesic components
 - Minerals
- This nation embraced sea bathing in the early 1800s and developed facilities to warm seawater by 1824.
 - English
 - French
 - Germans
 - Italians
- Thalassa* is the Greek word for:
 - Water
 - Rain
 - Sea
 - Seaweed
- Thalassotherapy does not include:
 - Inhalation of fine particles of seawater
 - Seafood diets
 - Desert clay
 - Floatation in seawater

(continued on page 246)

SPA FUSION

INTEGRATION OF SKILLS (continued)



5. Seaweed is defined as a:

- a. Plant that needs large amounts of sunlight to thrive
- b. A marine-based algae
- c. A blue-green algae
- d. A green algae from the genus of *Spirulina*

Matching

- | | | |
|---------------------|-------|-------------------------|
| 6. Red algae | _____ | A. <i>Chlorophycota</i> |
| 7. Green algae | _____ | B. <i>Rhodophyta</i> |
| 8. Brown algae | _____ | C. <i>Phaeophycota</i> |
| 9. Blue-green algae | _____ | D. <i>Spirulina</i> |
| 10. Not seaweed | _____ | E. <i>Cyanophycota</i> |