Introduction

to Spa

& History
INTRODUCTION TO SPA & HISTORY

Welcome to spa practitioner! I would like to take this opportunity to welcome you to an exciting career that is constantly changing and moving and has room for you to learn and grow within your future employment!

I would like to give some information about spa and where it came from and mostly how it got started!

This course is an introduction to Spa Pampering!!!

You will learn how to use Essential Oils, botanicals, massage, and the use of spa products to make the most out of pampering. Best of all the public wants these treatments and will pay you to do them.

It can be a great satisfaction for you, the practitioner to make some one feel extraordinary.

This course is not intended to treat or diagnose any skin conditions. Therefore, there will be no need of implements that will cut or harm the skin in any way. This is strictly for the practice of pampering and making someone feel wonderful. Please refer all skin conditions to a likened esthetician or Dermatologist!

Spa’s have been around in one way or another for many years. It has only been in the last ten years or so that North America has had a huge increase in the demand for spa and spa treatments. Most places that call themselves a spa are just places to go and be pampered. The word or definition SPA means water therapies.

But very few will use water treatments.

These days with more women and men in the workplace and the many stresses in life, there is more and more demand for spa’s.

Thalassotherapy

Thalassotherapy Is a Greek word used to refer to spa treatments that employ sea water and algae marine extracts. Perhaps you think of salty water as drying but these treatments are actually wonderful for dry skin and cellulite. Algae marine extracts also increase circulation thus helping to firm the skin and reduce fat accumulation.

Balneotherapy

Balneotherapy is the marine treatment of crystals and properties from the sea in a hydrotherapy tub.

Enjoy an invigorating underwater massage while the properties nourish and rejuvenate.
You will learn information on spa treatments and how to incorporate them without the use of water like that which is mentioned here. You will also learn some treatments that do use water such as jetted tubs used in spas to stimulate your lymph. You will learn, see and experience treatments for yourself to feel what your clients are feeling. You will learn about steam capsules and saunas and what they really do and how to incorporate them into your treatments for the skin and body.

You will learn about body wraps and recipes for natural ingredients you can use and do to promote wellness and overall wellbeing.

Let’s begin with a little bit about the Turkish bath. The Definition of a Turkish Bath Is; A type of bath in which the bather sweats freely in a room which is heated by a continuous flow of hot dry air (or in two or three such rooms with hotter temperatures) followed by a full body wash (sometimes preceded by a cold plunge), then by a massage, and finally a period of relaxation in a cooling room.

It is the dryness of air that distinguishes the Victorian Turkish bath from other types - the vapor bath, the Russian steam bath, or the Finnish Sauna (in the last of which, water is periodically ladled onto the stove or heat source, so as to dampen an otherwise totally dry heat source). The dryness of the air in the Victorian Turkish bath also, perhaps surprisingly distinguishes it from the Turkish baths and hammams which are still to be found in Turkey today.

In nineteenth century Turkey there were many baths or hammams to be found not just in Turkey but right across the Middle East generally. Many can still be found but their number is definitely decreasing. What we call the Turkish bath was really a re-invention of the Roman bath which was invented in 1856 (most recently) such baths to this day are frequently known on the European continent the most famous perhaps being, Friedrichsbad at Baden-Baden, Germany.

The oldest known spa (Mineral bath) still in existence is in Merano Italy where there is evidence of organized use of the spring dating back 5,000 years ago. It’s quite possible the wandering humanoids may have soaked their tired feet in the spring. Some historians feel this could have been even later than 5,000 years ago.

It is thought that the Egyptians used baths for therapeutic purposes as early as 2000 BC. Evidence of actual spa construction also exists from the Pharaohs, King of Media in 600 BC. The earliest forms of hot tubs were simply a caldera in which sizzling stones had to be placed to heat the water. From very early time our ancestors enjoyed the benefits of natural hot water springs and thus hydrotherapy was born!

THE GREEKS

Mineral and thermal baths showed up later in history around 500 B.C. in Greece. The early Greek baths were built near natural hot springs and volcanoes. Greek celebrities and the elite would meet at these hot springs to exchange philosophical views and treat physical ailments. Plato considered anyone who did not know how to swim to be uneducated. Hippocrates, (460-375 B.C) believed to be the founder of Medicine; recommended hydrotherapy for the treatment of disorders such as jaundice and rheumatism.

THE ROMANS

The Romans also enjoyed mineral waters but the ancient Roman baths were more recreational areas
used by hundreds of citizens at the same time as opposed to personal hygiene and aquatic therapy. Stone tubs were serviced by elaborate aqueduct systems carrying mineral water throughout complex private rooms, steam rooms and private baths. The largest of all Roman baths was the Diocletian. Completed in AD 305, it covered an area of 130,000 square yards. Romans were the first to go to the unctuarium where they had servants rub oil onto their skin. Next, they would move to a trepidarium or warm room where they would lie around chatting. From there, it was on to the hot and steamy caldarium, similar to a Turkish bath. Here they sat and perspired, scraping their skin with a curved metal tool known as a strigil. After a dip in the caldarium (Hot bath), they would take a quick dip in a frigidarium (cold bath).

During the fall of the Roman empire, many of the baths were destroyed. Many of the baths were revived during the Middle Ages but declined in use due to poor hygienic conditions and the spread of infectious disease.

THE SPA
Once part of the Roman empire (Now east of Belgium), the town of SPA is where the word SPA originated. To this day, the town is still a well known resort for baths and mineral springs. The word SPA (originally Hungarian) became a generic expression referring to natural mineral springs where people came to relax and take “The cure”.

THE BRITISH
The waters of bath, England were used for healing purposes from about 800 BC and the British Royalty continued to use the waters until well into the twentieth century. By this time, the term Pampering was coming into head. People with a great deal of influence wanted more than just soaking in the waters. They hired servants to massage them and wash their feet. This was considered one of the most staturistic things for a person to have. He or she was looked upon as one who had some title within the community.

THE JAPANESE
A family custom for centuries In Japan is the “ofuro” or hot water bathing in free standing wooden tubs. The Japanese took pampering to a new level with the use of Aromatherapies and massage and care of the hands and feet. It was expected that the women would learn the art of this pampering and make the men happy and keep them as husbands longer.
In this, we could go on forever about how the use of water pools helped to create the spas (as we now call them) today. The history of the care of hands as well as feet goes back to Biblical times as well as before and now with new age, we can truly put the word pampering into a new level of awareness. You can just about find anything on the market to put on your body for the purpose of luxury that it gives you when you are there.
Remember you are going into a field where your touch, personality, attitude appearance and even the way you talk becomes noticeable to the clients that will be coming into your establishment or place of employment. Hopefully, you will learn your touch and a positive way to present yourself to the public when it has to do with handling another’s body.

SKIN CARE HISTORY
Let’s take some time to talk about skin care history and what it means to the spa practitioner now.
Later in the course, you will be learning about skin care and services to pamper your client’s skin, but a brief history will get you more focused.

Ancient records show that coloring matter was used for the hair, skin, and nails, and that tattooing is an ancient practice. Coloring matter was made from berries, bark etc.

The earliest uses of cosmetics and pampering have been traced back to the ancient Egyptians who used makeup and creams generously for their personal hygiene, religious ceremonies and for the deceased. The Egyptians used fragrances for their religious ceremonies and incense was one of the most highly prized forms of fragrance. The Egyptians believed in cleanliness and built a system for bathing as we have discussed. Egyptians also kept their skin lubricated by applying fragrant oils, lotions and ointments.

Hebrew culture was also known to be concerned with cleanliness and health. They brought cosmetics and fragrances from Egypt to Judea, and manufactured many preparations for the care of skin, hair, nails and even teeth.

The Greeks had cultural advance reaching its peak in the years 460 to about 160 BC. They made lavish use of perfumes and cosmetics and used them in religious rites, for personal use and for medical purposes. The Greeks also developed excellent methods of caring and dressing with elaborate detail to their hair and nails. Around 200AD, Galen, a Greek physician, mixed 37.5% rose water, 12.5% Beeswax and 50% olive oil to create the first cosmetic compound “COLD CREAM!”

Unlike other natural oils, mineral oil is a clear, odorless oil that requires no preservatives, is hypoallergenic and has an unlimited shelf life. This paved the way for the commercial manufacture of “Pond’s cold cream”, still a favorite more than ninety years later.
ROMANS
The ancient Romans assumed many of the customs of the Greeks and used fragrances and cosmetics lavishly. In about 454BC, Roman men began shaving off their facial hair, and a clean shaven face became popular. Women used facials made of milk and bread and sometimes fine wine. Some facials were made with corn flour, milk and flour mixed with fresh butter. The Romans even formulated ways in which to bleach and dye the hair.

After bathing in the great baths, the Romans were helped by servants to apply rich oils and preparations to keep their skin healthy and attractive.

As we take a look, we see that the slow development of the modern spa goes back a long time and just about every culture has added their touch to it in some way. As women and men today are influenced by the media, this has been a strong threshold for the spas to advertise. With the pressures of life, work and job, everyone is looking for a release and some time to themselves. What better than to have someone pamper you and help you feel more confident! This makes us feel good and more beautiful and even more pleasing to our friends, family and loved ones.

So, you can see how you are going onto a wonderful field that not only makes you an asset to others but to your peers as well. You are able to work with licensed Estheticians side by side, both of you complimenting one another in your areas. You are able to open your own spa and relish in the fact that you are making an income doing what you love to do.

The spa industry is forever growing; services are getting better and more things are being introduced all the time. This is wonderful for you the employee or business owner, keeping your services fresh and enticing new clients to come in and try out something new …. What more could you ask for in a profession?

As you can see, there are many reasons these sweat baths or spas were called “great”. The size of them and the way they were arranged in design makes them superior even by today’s standards.
A 1980 study of U.S. versus French spas by Spa Health Consultants Inc. of New Jersey shows a comparison between spas in the U.S. and spas in France.

<table>
<thead>
<tr>
<th>Concept</th>
<th>U.S. Spa</th>
<th>French Spa</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIET</td>
<td>Spa Cuisine</td>
<td>Gourmet meals</td>
</tr>
<tr>
<td></td>
<td>Low Calorie</td>
<td>Wine, cheese, Desserts</td>
</tr>
<tr>
<td>EXERCISE</td>
<td>Main Focus</td>
<td>Only for relaxation</td>
</tr>
<tr>
<td>THERAPIES OFFERED</td>
<td>Massage</td>
<td>Seawater and seaweed</td>
</tr>
<tr>
<td></td>
<td>Herbal wraps</td>
<td>Baths, packs, wraps</td>
</tr>
<tr>
<td></td>
<td>Salt Glow</td>
<td>Exotic equipment</td>
</tr>
<tr>
<td>MEDICAL EVALUATION</td>
<td>For the Spa’s protection</td>
<td>To determine which detoxification.</td>
</tr>
<tr>
<td>WAS DONE</td>
<td></td>
<td>therapies to use to correct</td>
</tr>
<tr>
<td>ATMOSPHERE</td>
<td>Pampering</td>
<td>Condition found</td>
</tr>
<tr>
<td></td>
<td>Luxurious</td>
<td>Clinical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cold</td>
</tr>
</tbody>
</table>

Copyright 1994 Spa Health Consultants inc. Hillside Avenue Springfield, NJ 07081

Algae’s

Dictionary Definition: “chlorophyllus sea life, without roots or blood vessels. Grows in sea water, fresh water and even from moist air”

Generalities:
Throughout the ages, we have always known algae as a sea plant which enriches the soil. From the recent studies of professor Augier, U.E.R. researching on sea life sciences, we now know more about the real properties and active principles of Algae’s, along with the specific and important role they play in the growth, maturity, caliber and preservation of plants and their by-products (unknown up to now, was the discovery of female phytohormones belonging to the algae family). Marine algaes have exceptional properties and if kept fresh up to the time of use, will retain 95% of their properties. This is due to their being collected and treated during their prime and in their natural environment. Algae treated in this way are rich in 60 oligo-elements and act directly and favorably on cell growth as well as promoting the regulation of cell division.
We get surprising results from the use of algotherapy in the field of cosmetology including: Prevention of hair loss, acne treatment, blotches on the face, heavy legs, development and firming of the breasts, cellulitis treatment, slimming, rejuvenation of the skin etc. Skin treated with certain varieties of algae has a much younger and stronger life span. Some of these elements allow a better absorption and a maximum binding of phosphor and calcium. This is done through the chlorophyllus exchange. Due to this exchange, the skin develops a strong resistance to infections and sensitivities.
Introduction To ‘Day Spa’ Presented by Constance Santego

General points on Algae:

- Marine algae are as profuse as land flora - today, we list as many as 865 varieties
- Algae are a life form belonging to the vegetable family; formed of identical cells, they neither have sap nor root systems. They have an osmosis interchange, cell to cell - and grow through mineral elements found in seawater.
- Reproduction occurs through the spores on an annual basis. Building occurs during autumn and winter, maturing between February and May (Northern Hemisphere)

Conditions of a good algae crop:

1) Harvested in spring while in full biological activity
2) Deep sea sites where strong tidal currents knead and oxygenate the algae.

Working 3 - 5 hours underwater, professional divers gather algae and other sea vegetables from depths ranging between 5 - 40 meters. A hydro-ejector system brings these pollution-free plants to the boat - alive - to ensure their freshness and quality. Harvested in this manner, algae keep their intrinsic properties, thereby giving your cells the stimulation needed.

The first algae treatment factory was founded in Brittany (France) by Mr. Francois-Benoit Tissier in 1829.

Different Species of Algae:
To date, 865 types of algae are found, coming from various seas and oceans around the world. Some of the most favored in our treatments are:

Fucus Vesiculosus Algaes

Fucus Crispus Algae

Lwinaries Algaes
(Very rich in alginates)

Asophyllum Algaes
(40% richer in carotene, 30% richer in chlorophyll)

Agar-Agar Algaes
(Used in artificial insemination for orchidea propagation)

Certain kinds of algae are only found in local areas, e.g.the “Macrocystis” algae, measuring up to 75 meters in length, is only found in the pacific ocean, along the Chilean and Californian coasts. Planted 1 meter apart, they grow to be 13 - 15 meters long (due to cellular reproduction) over an initial 2 month period. The reproduction power is in order of a million. The richness of phytohormonas in this variety is so, that we are able to measure the results obtainable in cosmetic and agricultural terms.
Different types of Harvest:

1. Shallow tide harvests are called flotsam, wrack or varec algaes. More often than not they are full of sand, pollution and petro-oils (from oil slicks, etc.); they have lost 60 -70% of their properties.

2. Shore and rock algaes, found at low tide and brought back by cart, are sun-dried; their farming is tedious and inconsistent, leading to a 50 - 60% loss in properties.

3. Deep sea harvests carried out at 5 - 40 meters below the surface, is by far the best method, brought back alive to a specially equipped boat, the algaes are sorted and kept alive in open-sea tanks on board.

When brought back to shore sea algaes are treated by an exclusive procedure which does not entail heat or dehydration methods. In fact, sun drying on sand dunes or dehydration by dryers destroy a high percentage of vitamins and phytohormones. After a procedure consisting of 6 consecutive grindings and treatment at 35°C, they are immediately cooled to 15°C and packaged. ( Crushing ensures the total micro-explosion and the release of all the active elements.)

This is the only process in which fresh algaes are not dehydrated and in which its properties can be guaranteed for a year.
Composition of fresh Algaes

Macro Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen</td>
<td>1.50%</td>
</tr>
<tr>
<td>Sulphur</td>
<td>2.50%</td>
</tr>
<tr>
<td>Phosphor</td>
<td>0.50%</td>
</tr>
<tr>
<td>Magnesium</td>
<td>4-6%</td>
</tr>
<tr>
<td>Potassium</td>
<td>3%</td>
</tr>
<tr>
<td>Calcium</td>
<td>2-3%</td>
</tr>
</tbody>
</table>

60 Oligo Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iodine</td>
<td>2100</td>
</tr>
<tr>
<td>Iron</td>
<td>1500</td>
</tr>
<tr>
<td>Manganese</td>
<td>260</td>
</tr>
<tr>
<td>Boron</td>
<td>70</td>
</tr>
<tr>
<td>Cobalt</td>
<td>2</td>
</tr>
<tr>
<td>Copper</td>
<td>12</td>
</tr>
<tr>
<td>Zinc</td>
<td>40</td>
</tr>
<tr>
<td>Bromine</td>
<td>3</td>
</tr>
<tr>
<td>Nickel</td>
<td>7</td>
</tr>
<tr>
<td>Fluorine</td>
<td>30 (Teeth concentration)</td>
</tr>
<tr>
<td>Stronium</td>
<td>50</td>
</tr>
<tr>
<td>Aluminum</td>
<td>75</td>
</tr>
<tr>
<td>Barium</td>
<td>15</td>
</tr>
<tr>
<td>Titanium</td>
<td>12</td>
</tr>
<tr>
<td>Arsenic</td>
<td>8</td>
</tr>
<tr>
<td>Silver</td>
<td>1</td>
</tr>
<tr>
<td>Gold</td>
<td>2</td>
</tr>
<tr>
<td>Chromium</td>
<td>1</td>
</tr>
<tr>
<td>Pewter</td>
<td>80</td>
</tr>
</tbody>
</table>

Amino Acids

<table>
<thead>
<tr>
<th>Cystine</th>
<th>Glutamic</th>
<th>Arginine</th>
<th>Lysine</th>
<th>Tryptophane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proline</td>
<td>Ornithine</td>
<td>Aspartic</td>
<td>Methionine</td>
<td>Phenilalamine</td>
</tr>
</tbody>
</table>

Vitamins Lipo and Hydrosolubles

<table>
<thead>
<tr>
<th>Vitamin A</th>
<th>Vitamin E (Antihaemorrhage)</th>
<th>Vitamin D (Used in Pharmacy)</th>
<th>Vitamin C</th>
</tr>
</thead>
<tbody>
<tr>
<td>PP</td>
<td>B1, B, B12</td>
<td>B</td>
<td>K</td>
</tr>
</tbody>
</table>

Phytohormone

- Natural vegetal hormones of growth (female phytohormone)
- Abscissines (anti-ageing)
- Auxines
- Cytokinines
- Laminarines
We could extract penicillin from algaes
500 g of algaes is equal to a synthesis of 10,000 L of sea-water
Algaes are richer than thermal and mineral waters
They contain all the basic nutrients
They are bactericidals
They are antibiotic (acrylic acid)
It is not said “life comes from the sea” The much used word Thalassotherapy (seawater therapy) comes from Greek: “Thalassa”, the sea; “Therapy”, to cure
72% of the oxygen we breathe is produced by Algaes.
People who include sea-foods in their diets are less prone to certain ailments and diseases than others, simply because sea water possesses all the minerals and elements required for good health.
Marine plants grow in an environment rich in minerals, which they absorb and retain, they effect the transition of mineral to animal. The minerals mt urn travel through the organism of those who feed on dependent on Algaes. Everything on land, in oceans, and in the human body exists as a consequence of this fine balance.

Alges in the diet:
In Japan, algaes constitute more than 25% of the national diet and are prepared in many different ways. In Ireland, Denmark and other maritime countries, one can find algaes at the dinner table. Dr. Quintou has established beyond question that the liquid obtained by the boiling of algaes, has the same substance as the lymphatic liquid in the human body. The same oligo-elements found in algaes are also found in the human metabolism. Algaes play an essential and irreplaceable role in the basic function of the metabolism:

*Sodium Chloride* - provides balance of acid base

*Magnesium* - favoring organism defenses, activates the cellular functions.

*Calcium* – anti-allergy, regulates neuro-vegetative system

*Potassium* - stimulates diuresis, important heart action

*Iodine* - acts on thyroid, blood vessels, ageing, tiredness

*Copper, Zinc, Manganese* - stimulate and rebalances the glands with internal secretion (endocranial system)
Algae can also transform these elements into molecular regrouping, hence, accrualise the mineral and chlorophyllus substance; they contain all the vitamins, amino acids, glucides, lipides, diastases, musliages, alginates, etc.

The richness in these above mentioned plants explains the wide and popular use of algaes in the staple diet of 450 million Orientals and northern Europeans. In these numerous countries, algaes are considered as a mineral complement and to aid the digestive system and tracts. In Chile, a type of mashed porridge consisting of algaes, is eaten warm and served with fresh cream.

Dr. Besterman (1957) studying the effects of algaes on people suffering from coronary thrombosis, discovered that the administering of luminaries extracts brought about the clarification of the sebum after a rich meal; thereby demonstrating the neutralizing effects of algaes on fat and cholesterol. A blood analysis conducted before and after an algae cure demonstrates the reduction of the cholesterol level.

Any person feeling chronically tired, should learn to adopt various sea foods in their diet, as one of the major causes fatigue is due to a lack of iodine and mineral salts.

Algae are equally used for their gentle and neutralizing effects (agar-agar) on:
- Neutralizing hyper-acidity of the stomach
- Regulating intestinal functions (constipation, diarrhea)

Peasants used to use algaes in cases of bronchial inflammation and intestinal/gastric problems. They also fed their animals with a certain amount of algaes in order to make them stronger and healthier ie. Hens being given algaes in their feed lay healthier eggs which have a yellowed yolk and a harder shell. Algae are still being used for certain hepatic problems and for inflammations of the brain, as well as mental retardation. One of the major causes of idiotism (a type of mental retardation) is due to poor iodine levels.

Present day medical practitioners are indebted to the uses of algaes through the ages, and yet, Dr. Valnet (1975) writes on the sad fact that the majority of doctors ignore the many resources and possibilities offered by algaes in regards to medical and biological research work and discoveries.

- 3000 BC in China, algaes are used in the treatment of goiter
- 16th century - algaes used in premature child births
- 17th century - algaes used in goiter treatment
- 18th century - In Ireland, algaes used in the treatment of lung and bronchial diseases (taken internally)
- Today, algaes are used in the form of pectorant pastilles, they also constitute an excellent vermifuge. Also used for diuretic purposes and renal problems (toxin elimination).
- In India, algaes are used to treat vesicle problems
- Although algaes play a major role in the diets of most oriental countries, occidental civilizations continue to ignore the prodigious preventive and healing powers of algaes
What can be treated with algae:

- Insomnia (from oligo elements)
- Convalescence lingering
- Glandular disorder
- Psoriasis
- For children-growing disorders
- Digestive disorders
- Constipation-Diarrhea
- Demineralization
- Anemia
- Restoration of Physic and Psychic dynamism

Application in Esthetic and Cosmetology:

- Development and firming of breasts - the mammary glands are one body
- Iodine point of fixation
- Obesity
- Ageing
- Cell and tissue regeneration
- Blotches, Rosacea
- Cellulitis and retention of water

- Brittle nails
- Slimming
- Acne
- Seborrhea, dandruff, hair loss
- Hemorrhoids

Rejuvenation is activated through a better tissue conservation. Optimal fixation of phosphor and calcium in increasing chlorophyllus exchange.

In beauty masks (cold or hot), algae stimulate, regenerate and activate growth, nutrition and correct deficiency.

**Physiological action of algae in Esthetics:**

Thanks to their combined development substances consisting of vitamins and oligo-elements. Algae work deeply on the cellular multiplication, and increase of chlorophyllus synthesis and photosynthesis, and regulation of the nutritive elements.
Action on the sanitary status of the skin:

- Skin which is well fed, detoxicated, re-balanced and re-mineralized, does not suffer from any deficiencies and is therefore in the best condition (i.e. its’ peak efficiency) to fight off any elements which may threaten it. Its effectiveness on some bactericidal disorders (such as acne) is spectacular
- Through the alginate and luminary factors present, algaes wage war on parasites and reduce contamination risks
- Increases chlorophyllus interchange, improving the photosynthesis and thereby ensuring the best possible cellular nutrition.
- Through their protective role, stimulating elements in algaes provide nutrition to the skin “without chocs”
- Prevent eventual unbalance
- Reinforces the skin and provides a self-defense system
- Taken orally as a decoction, in bath or used in external application. Algaes give the human body all the nutrition and requirements it needs as well as helping its efficiency to fight off the majority of ailments and deficiencies.
- Cold grinding and treatment of algaes is essential to the maximizing o fits properties. A bio-element pulp is obtained from the total burst of fibers and vegetable cells, which discharges the chlorophyll.

Mineralizing properties:

- Brings essential water balancing properties
- Fights superficial dehydration in 2 ways:
  1) Minerals hold moisture to re hydrate skin tissue
  2) A calcium and magnesium blend of algae drain edema in the tissue to fight water retention.

Natural Emollient and Hydration:

Luminary seaweeds elasticize the skin’s tissues in a way far superior to any creams and lotions (e.g. Paper pulp)

Circulatory Aid:

Poor circulation is the cause of many leg problems. It is also one of the greatest contributors to the skin that is lacking in tone.

Seaweed masks and applications do the following to counter these problems;

1) Vaso-dilate the capillaries in the skin’s tissues bringing much needed nutrients and oxygen to the skin’s tissues.

2) Speed up metabolism allowing the body’s own lipolytic enzymes (fat decomposing) to have access to stubborn cellulite tissues thus allowing for a natural ion exchange (ex. Galvanic current) to release the trapped toxins in the fat cells and tissues.

3) Stimulate lymphatics to drain trapped toxins and water that collect in the connective tissues and bring on that “lumpy” look. The evidence is apparent to the naked eye after one application. Skin color has a uniform and healthy look as well as exhibiting greater tone.
Most commonly used seaweeds:
Lithothanium Calcaeum (Cal-mag powder): Characteristics are a grey-white powder with a natural scent- used for detoxification

Spirulina: characteristics are a blue-green color used for dietary supplement (protein)
Fucus Vesiculosus: Characteristics are a light green color used for dietary supplement (weight loss)

Chondrus Chrispus: Characteristics are res, sunbleached to white used for detoxification.

Luminary Digitata: Characteristics are brown algae, looking green color has iodine salt used for hydration and lack of tone.
Personal and professional ethics within the Spa
Personal and professional ethics within the spa

For a minute, let me give you a scenario and then tell me what you think:

You and a friend walk into a spa for a day of pampering. You pay for your appointment and you sit and wait for the wonderful person who will pamper you for the rest of the day. Your name is called and you look up to see a young woman (we will say) you first impression is; her hair is a mess and look at her lab coat it is covered in stains. You brush the thought off and she takes you to your room, opening the door and saying “Take off your clothes; I’ll be back in a minute!” You’re wondering what to keep on, where to lie on the table, do I get on the table?

When she comes back, she barely gives you time to get on the table now and starts your facial already! As she leans over you, you smell cigarette smoke on her clothes and her breath.

The smell bothers you but you continue on because you have already paid for the session and want to feel good. The young woman rushes you through the service, making you feel rushed and in a whirlwind of stress from the moment you walk in the door. All the while the woman talks only about her life and the partying she did with her friends the night before. She never kept quiet the whole time!

Now, let’s talk about how you would feel in this situation. Do you feel that this is good value for the dollar you have spent? This is not only an insult to your client but to yourself as well as the spa in which you work. Your impression is what keeps you coming back and sometimes if your personality is wonderful they will come back to see you even if your service was not one hundred percent. In the spa industry, personality is everything. It is your personality that can calm a client if they are in for the first time or nervous about removing clothing for a massage. Your ability to make the client feel at ease and know that they can trust you is what will keep them coming back for more. The client will also give you a wonderful recommendation to friends and family members if she has a positive experience with you.

Hygiene and good grooming:

Appearance:

Present a clean, neat and attractive appearance. This does not mean you must look as if you are going to the ball, but if your hair is longer than shoulder length, have it pinned up or pulled back. Keeping your skin looking refreshed with a little bit of makeup such as mascara, blush and some lipstick will go a long way toward making a great impression. For men, keeping clean shaven and beard or moustache neatly trimmed as well.

Daily bath or shower and use of deodorant are essential. Bathe or shower daily. Because of client sensitivity issues, use no perfume or cologne. Always have extra deodorant in your purse or locker or car, wherever you can get to it. Many services cause you to strain and the room get warm; you will begin to perspire. Never trust that you are okay, always be prepared for the worst.

Clothing and shoes:

Whether you wear a uniform or your own clothing, it should be clean, neat, pressed and properly fitted. Try to present a conservative, professional image rather than super-sexy or stylish. We recommend a smock with shorter sleeves to wear over your clothing, a neutral colored top which does not show past the sleeves of your smock. There is always a possibility of splashing oil or other product on your clothing; in this way you can take the liberty of protecting your wardrobe and looking professional at once.

If working with an Esthetician or in another’s professional office, recommendation is a colored smock which offsets the color of the others in your office, making you look unique and recognizable. Always wear a nametag, telling others who you are.
Hands and nails:
Hands should be clean at all times and nails well cared for. Nails should be clean, trimmed and
if polished, only light or clear nail polish used. Clients will judge your spa and your service based upon
what your nails and hands look like. A manicure client will observe your own hands and nails to draw
clues as to what sort of service you are able to provide. A massage client will appreciate your courtesy in
not scratching their skin with long or jagged nails.
Fatigue:
Fatigue and tiredness, resulting from work, exercise, mental effort or the strain caused by hurry
and worry tends to drain the body of its vitality. Therefore, an adequate amount of sleep, not less than
seven hours is necessary.
Thoughts and emotions:
Thoughts and emotions influence the body’s activities. An angry thought may cause the face to
turn red and increase heart action. A thought may either stimulate or depress the functions of the body.
Strong emotions have an effect on the heart, arteries and glands. Mental depression weakens the
functions of the organs thereby lowering the resistance of the body to disease.
A Healthy attitude:
The mind and body operate as a unit. A well balanced condition of the body and mind result in
good health. This enables them to perform all of their functions normally. A healthy attitude can be
cultivated through self control. In place of worry and fear, the health-giving qualities of cheerfulness,
courage and hope should be encouraged. Outside interests and recreation relieve the strain and monotony
of hard work.
Graciousness:
Learn to display pleasant emotions. A smile, greetings, a word of welcome, the willingness to
assume the responsibilities of friendship, the ability to fit into new situations and to meet new people with
friendliness, all are part of professionalism. A sincere smile sets the mood for warm human relations.
Politeness:
The root of politeness is thoughtfulness of others. It includes the little things such saying “thank
you” and “please”, treating people with respect, exercising care of other’s property, being tolerant and
understanding of other people’s efforts and being considerate of those for whom you work.
Voice and conversation:
Tone of voice, conversational skills and good language skills equal success. The use of proper grammar
and intelligent conversation will serve well as a professional spa practitioner. Remember that success is
not made within the salon alone, but depends also on personal contacts, associations and active
participations in many social and business functions.
Good ethics:
Ethical behavior is a simple, straightforward matter.
1) Be honest, but tactful, with all of your clients
2) Treat all clients fairly and with equal respect
3) Be dependable in all of your dealings with clients, co-workers and others
4) Take the initiative in solving problems for your clients and for your spa
5) Practise the highest standards of professionalism at all times.
Poor Ethics:
Questionable practises, extravagant claims, and unfulfilled promises violate the rules of ethical conduct. These acts make yourself, others within your profession and your entire industry look bad.
Take a look at the list below; recognize examples of how you should be greeting your customer and how so many simple things can make your client recognize you as a professional.

1) Greet clients warmly and introduce yourself with a light, but confident handshake
2) If they are aged, help them up if they need it. A helpful arm will do as you walk them to your treatment area.
3) Take their jacket if they have not hung it up at the entrance
4) If this is the client’s first time in your spa, fill out your client consultation. The client may be a repeat customer and have information on file which you will go over quickly to make sure nothing has changed. (Medications, pregnancies, injuries)
5) Give adequate instruction as to what to do to prepare for their service. Keep in mind this may be her first time receiving this kind of service.
6) Assure the client that you will step out and be back shortly, at which time you will knock on the door to let them know you are there. Do not enter until they say “come in”.
7) Enter quietly.
8) Keep your voice calm and reassuring at all times. Remind the client that this is “their time”. They may choose to converse with you or they may choose to relax completely and maybe even have a little nap.
9) Always be aware of your client’s body language under your hands. You should be able to recognize if she is hurting or uncomfortable. Do not be afraid to ask how the pressure is and if the client is comfortable.
10) If you are offering a service which requires conversation such as a manicure or pedicure, then talk but keep the conversation focused on the client. Let the client talk to you and keep your conversation neutral-weather, how they are feeling etc. Stay away from conversation about your own life or family unless it adds something to what the client is talking about.
11) When the service is complete, help the client get up. If lying down, give them a few minutes to become balanced and ask if they need assistance off the table. Let them know you will meet them in the reception area. Remind them to put their jewelry back on.
12) Remember if you are sick with a cough to always wear a mask over your mouth. Sometimes a virus can come on at work and you don’t want to pass it along to your clients. Explain tactfully that you are coming down with something or have allergies and would like to use a mask. They will appreciate your attention to their wellbeing.
13) Always wash your hands before and after every client and use a cream for your hands as well. Keep your hands warm if possible and warm them before touching your client.
14) Always ground yourself before each service. You may not think a stressed out client has any effect on you, but the truth is they do. You may absorb their stress. Take a few moments to breathe and center yourself before moving on.
15) You may tactfully mention another service your client may want or need. This is called up selling and it benefits yourself and your peers to learn to do it well.
16) Before your client leaves, book their next appointment. This is easy to do with facial, manicure, pedicure, massage or waxing.
17) Be honest. Clients will appreciate your honesty much more than fantastic claims you and your spa could never live up to.

Always keep in mind that the service you would want will be the service your client will also want from you. If you enjoy certain things, most of the time so will your clients. Being able to communicate well helps with up selling and re-booking. Make sure you have had an experience with all of the services your spa offers so that you know how to explain them to your client. It is easier to explain something if you have had the service and liked it as well.

23
Client Consultation
Client Consultation

A client consultation is your method of record keeping. It enables you to save time by recording the results of your treatments, how many they have had; if they have purchased any product, if they liked the product. A client consultation record will also protect you the practitioner from false or malicious claims made by clients.

This kind of record keeping also enables you to cut set-up time down by quite a bit. By referring to the client record, you can see which products they have used and what comments were made. It is important to include medical history, medications if any and allergies as well. Modern day cosmetics can cause allergic reactions or sensitivities for people sensitive to smells and to chemicals or additives put into a product.

The client consultation paper or card—most spas use one in one form or another. You can add or change this form for your own practise but always make sure the necessary elements are included.

1) The client’s name, address and home phone number. If your client asks you why you want her number, simply explain that your spa does promotions throughout the year and that you call your clients in person to tell them about it. It is also a nice way to send greetings over the holidays,
2) Any information regarding medical treatments, medical history, and vitamin supplements they are taking, pregnancies, heart problems etc.
3) Notice any abnormalities of the skin from first appearance. Do a personal consultation when you have them settled in the room before their service. This ensures privacy. You may ask the client to fill out general (name, address) information in the waiting room but you will do the rest with her or simply wait and do everything at once.
4) Make sure to record any allergies.
5) Note any marks, bruises or injuries.
6) If your client is dieting, note her weight and age when they come in for record’s sake
7) Ask if they were referred to your spa and how they heard of you. This helps you track which advertising is effective.

Your client consultation is your window into the client. It also helps with regular clients to remember their name, birth date etc. Keep track and always call your client by her first name or preferred title.
Integument

Introduction
The skin is the largest organ in the body and it has a very important role to play in our health and welfare. It is the skin that both protects and warns of conditions interior and exterior to our bodies that may indicate a threat or condition we should be aware of.

The special senses are also an amazing aspect of our being and although we may not be able to do a lot to help them with essential oils, we should be aware and actively working to maintain their health.

Learning Objectives
After you have studied this lesson you should be able to:

1) List the four functions of the skin
2) Identify the parts of the skin on a diagram
3) Describe the subcutaneous layer
4) Describe the functions of sweat and sebaceous glands
5) Describe the function of the hair and nails
6) Explain the function of melanin
7) Describe the skin types

Skin or integument
The skin is the largest organ of the body. Healthy skin is slightly moist, soft, flexible and possesses a slight acid reaction. Its texture should be smooth and fine-grained. The color depends upon the blood supply and melanin content.

It is a protective organ covering the surface of the body. Without a break, it joins with the mucous membranes of the alimentary and other canals. The skin forms a protective barrier against the harmful effects of physical, chemical and bacterial agents. It contains the end organs for the sense of touch. It maintains body temperature through the activity of its sweat glands and blood vessels.

The skin is an important organ, which has four primary functions.

It:

1) Serves as a protective cover against invading pathogens
2) Regulates body temperatures via perspiration and shivering
3) Provides a waterproof covering for the body
4) Receives information about the outside world. It is the most distal part of the Peripheral Nervous System.
The skin has two principle divisions:

1) The **Epidermis** of the skin
2) The **Dermis** or true skin

**General**

Skin is a very large, elastic organ. The average human adult body is covered with about eighteen square feet of skin. It varies in thickness, being very thin over the eyelids and very thick on the soles of the feet. It weighs about seven pounds and provides an excellent protection against germs as very few can penetrate unbroken skin. The skin, except for a few areas such as the palm, soles and ears, is loosely attached to the underlying tissues.

The color of the skin varies normally with the amount of pigmentation. The color varies during a disease because of difference in pigment. In certain places, the outer layers of the skin are modified to produce hair and nails. The skin varies in thickness from 0.5mm (0.02) on the eyelids to 4mm (0.17) or more on the palms and soles.
As an indication of the complexity of the skin it has been estimated that one square centimeter of skin contains approximately:

- 65 hairs
- 95-100 sebaceous glands
- 78 yards of nerves
- 19 yards of blood vessels
- 650 sweat glands
- 9,500,000 cells
- 1,300 nerve endings to record pain
- 19,500 sensory cells at the end of nerve fibers
- 78 sensory apparatuses for heat
- 13 sensory apparatuses for cold
- 160-165 pressure apparatuses for the perception of tactile stimuli

The skin has two principal divisions. However, it really consists of three distinct layers:

1) The **Epidermis** is the outside layer of the skin, which contains nerve endings but no blood vessels. The tissue fluid derived from the dermis nourishes it. On average, it is about as thick as the page of a book. The epidermis consists of stratified epithelial tissue. The outermost cells wear and die and are constantly shed from the surface. It is like tree bark with new cells growing from beneath it. New epidermal cells are constantly produced in the deepest sub-layer of the epidermis. The new cells mature and are pushed to the surface by new cells underneath. The cells at the surface are mostly filled with **keratin**. Keratin is a tough waterproof protein that makes the skin’s surface very water resistant.

2) The **Dermis** (aka cutis or cutaneous) is a thick layer of skin located beneath the epidermis. It contains dense connective tissue mostly composed of **collagen**. Collagen is largely responsible for the strength of the skin. It allows for the elasticity skin is noted for. The dermis contains blood vessels and nerves of the skin and the specialized skin structures of hair follicles and glands. The **Arrector Pilli** muscles, which attach to the hair follicles and contract in response to cold or fear, are located in the dermis.

The connection between the epidermis and dermis is extremely irregular. It consists of a succession of Papillae, or fingerlike projections. This interlocks the two layers together. The smallest papillae are located where the skin is thinnest (eyelids) and the longest is where the skin is thickest (palms and soles). The papillae of the palms and soles create elevations of the epidermis which produces ridges. These ridges form fingerprints. Each papilla contains either a capillary loop or a specialized nerve ending. The capillaries supply nutrients to the epidermis. There are four times as many capillaries in papillae as nerves. The sensory nerve endings give sensations of touch, pain and temperature while superficial blood vessels play a part in regulating body temperature. The papillae also provide a friction which improves our ability to grasp.
3) The **subcutaneous** layer (superficial facia, subcutis or hypodermis) is the innermost part of the dermis. It is made up of a layer of fatty tissue called adipose tissue or subcutis, lymph ducts and blood vessels. The fatty tissue varies in thickness according to age, sex and general health. This layer joins the skin to the muscle and other supporting tissues. The adipose tissue provides insulation for the body and protects from physical shock. The fat can be metabolized to provide the body with energy and its distribution helps give smoothness to the body and helps determine the male and female body shape. If this tissue becomes hard and loses its elasticity, the layers of the skin cannot move properly. Skin elasticity is also called **skin turgor** and can be tested by pinching. The speed at which the skin returns to normal determines the amount of elasticity and hydration.

**Note:** Some Aromatherapists and histologists consider the subcutaneous tissue as a continuation of the dermis.

**Acidity**

The skin is slightly acidic; between a PH of 4.8 and 6. This is said to be the acid mantle (mantle-coating or covering). The function of this acid base is to destroy germs. This protective covering can be destroyed through the use of synthetic soaps, strong preservatives, chemicals found in dyes and other products, washing or bathing in too hot water and stress. It will normally take about 20 minutes to replace the acid mantle once destroyed by a bath. However, continued use of substances that either build up in the system or constantly attack the mantle can result in losing its effectiveness at stopping germs. Many creams, lotions and washing products damage the acid mantle. While we may look and smell clean, we are open to attack by viruses and bacteria.

The skin has two types of exocrine glands. They are the:

- **Sebaceous** glands (aka oil glands) secrete sebum. They are sac like glands that lubricate and soften the skin. They normally attach to the hair follicles a short distance from the surface of the epidermis. These glands are most numerous on the face and scalp. They produce oil for the hair, to lubricate the skin, to prevent water loss and inhibit growth of certain types of bacteria and may destroy some fungus.
- **Sudoriferous** glands (aka sweat glands) are located in the dermis. They are tiny coiled tubes situated in the subcutaneous tissue. From here, a duct extends through the dermis and forms a spiral through the epidermis. Approximately one liter or more of sweat is released per day. These glands extract water, salts, urea and other waste products and discharge them onto the skin’s surface as sweat. There are about three million and they are on every part of the body.

Each square centimeter of skin also contains hundreds of sweat glands. These are controlled by a heat regulation center in the brain. The sweat glands release moisture, which evaporates and cools the body surface. (In this capacity, the skin is an excretory organ). The normal body processes produce heat. It is eliminated from the skin by radiation to the surrounding air or by evaporation. There are two types of sweat glands:

- **Apocrine** sweat glands- More social glands which are limited to a few regions of the body. Primarily and auxiliary the genital areas. Inactive in infants, they develop with puberty and become more active prior to menstruation. Fresh sweat is normally sterile and generally quite inoffensive. Decomposition by bacteria gives rise to perspiration odor. (Some believe they play a role in attracting a sexual partner and arousing them sexually.)
- **Exocrine sweat glands**- there are millions of these sweat glands all over the body and the sweat they give out is little more than diluted salt water. They help regulate the body to keep its temperature at 98.6 degrees F or 38.6 degrees C. These exocrine sweat glands disperse large quantities of water.
Extensions of the skin
Hair and nails are both appendages of the skin and are formed of hard keratin.

Hair serves a protective function. The exposed area of the hair is the shaft and the root is beneath the skin’s surface. The root is called the hair follicle. At the bottom of the follicle is a little mound of connective tissue containing capillaries that deliver nutrients to the follicle. Cells multiply at the base, produce keratin and move outward. They die and the shaft is composed of dead cells.

Nails or onyx are horny epidermal cells and consist mainly of hard or tough keratin. They are translucent plates, which protect the tips of the fingers and toes. The nail plate contains no nerves or blood vessels.

Nerves of the skin
The skin contains the surface endings of many nerve fibers. They are:

1) Motor nerve fibers, which are distributed to the Arrector Pilli muscles attached to the hair follicles. This muscle causes gooseflesh when you are frightened or cold.

2) Sensory nerve fibers, which react to heat, cold, touch, pressure and pain. These sensory receptors send messages to the brain.

3) Secretory nerve fibers, which are distributed to the sweat and oil glands of the skin. These nerves regulate the excretion of perspiration from the sweat glands and control the flow of sebum to the surface of the skin.

Every day the body replaces over ½ billion cells. The skin is said to breathe because it takes in oxygen and discharges carbon dioxide. The skin itself is 50 to 75% moisture.

Skin and body heat controls
The skin regulates temperature of its fatty layers and of the internal body through a number of methods. It does it through the control of heat release and the control of how much heat the body will absorb.

1) Heat release controls. Temperature is extremely important as high body temperatures can cause a serious breakdown of the brain and vital organs. In addition to sweat glands, which are the major cooling system, 6.5 sq cm. (one square inch) of skin contains up to 4.5 meters of blood vessels. They help regulate body temperature by vasoconstriction (increases heat retention) and vasodilation (cooling) of blood vessels. When the body temperature rises, vascular dilation allows more blood to flow near the skin’s surface. The blood’s heat is radiated off. When the temperature is low, blood vessels constrict to reduce blood flow. The less blood near the surface of the skin, the less heat radiated off.

2) Heat absorption controls. The amount of heat absorbed is a serious problem at times. Sunlight is the main source of external heat that penetrates the body. Heat sources such as a furnace in a home, does not provide the body heat. It simply allows the skin to feel warm or cool. Sunlight radiation is absorbed. To protect the body and skin from too much solar radiation, the skin has the ability to increase production of melanin. This skin color change, most often called tanning, is a skin response to damage caused by radiation. It includes heat absorption. Tanning limits the amount of radiation the skin will absorb.
Nutrition of the skin

Nutrition of the skin is provided by blood and lymph. This contributes certain materials for growth, nourishment and repair of the skin, hair and nails. Additionally, they remove waste products from the tissues.

Detoxification

The liver and kidneys are considered by most to be the major detoxification organs in the body. However the skin plays a very important role in this process. Not only of itself; but of internal organs.

The skin can carry up to 9.8 kilograms (44 lbs) of fat and 9.9 kilograms (22lbs) of water. This alone ensures that detoxification is essential. The skin can regulate up to 20% of the body’s water elimination through perspiration. In this perspiration urea, uric acid and other toxins are removed. If the kidneys or liver are failing, the skin increases its release of toxins to take the load off the internal organs. Digestive, kidney, intestinal, respiratory and liver problems frequently indicate their lack of function through the development of skin problems.

Absorption and penetration through the skin

Although the skin appears to be a solid barrier, the presence of hair follicles, glands along with pimples, boils, acne etc. allow entry of some drugs and chemicals. Many substances cannot enter through the skin barrier unless there is a cut or hole. Most artificial substances such as vitamins, collagen and elastin are believed to be unable to cross the skin barrier. Substances that can penetrate the skin barrier include;

- Oxygen and Carbon Dioxide
- Fat Soluble Vitamins
- Hormones (some)
- Fat soluble substances
- Gases
- Phenol derivatives
- Essential oils

Skin Breathing

The skin breathes. It takes in oxygen and discharges carbon dioxide. The amount of carbon dioxide released by the skin in one hour is about 1% the amount released by the lungs during the same period.

Skin and water

The skin is 50- 75% moisture and it can maintain these levels only through the presence of sebum. Sebum allows the evaporation of water and limits excess moisture from entering.

Common terms

**Acids Balanced**
A condition of a cosmetic product where its acidity is the same as the acidity of skin and hair.

**Astringent**
A substance or medication that causes contraction of the tissues and checks secretions

**Emollient**
An agent that softens or soothes the surface of the skin

**Exfoliation**
Act of stripping or wearing off the skin; an abrasion

**Restorative**
To restore to an original state; repair; rebuild

**Scurf**
Thin dry scales or scabs on the body, especially on the scalp; dandruff
Notes for this chapter were derived from the following sources:
Erin Keller: Aromatherapy for Beauty, Hair and Skin Care 1992, Healing Arts Press.
Joel Gerson, Standard Textbook for Professional Estheticians; techniques for skin care and make up specialists fourth edition, 1985 Milady Publishing corporation, NY

The Importance of Water
The human body is approximately 60 percent water, an amount that varies with age, sex and the proportion of muscle tissue to fat. Infants have the largest percentage of water in their bodies, men have more than women and athletes more than non-athletes. Approximately 45 quarts of water are distributed throughout the cells of the average adult body. Some parts are more water than anything else; muscles contain about 75 percent water, and blood plasma is almost all water (more than 90 percent). Water also plays an important role in cushioning the joints and internal organs, lubricating body tissues such as the eyes, lungs and air passages, and protecting the fetus during pregnancy.

Of all the essential nutrients, water is the most critical. We can survive on our body’s stores of food for as long as 10 weeks, but without water, life would be over within a matter of days.

Every function of the body uses water. It is needed for digestion, absorption, circulation, and excretion; for transporting nutrients, helping to build tissue, and maintaining body temperature.

Through perspiration and other bodily functions, large amounts of water are steadily being lost from the body each day. For example as much as 1/3 of a quart may be exhaled from the lungs each day, and about 1 pint may be lost through perspiration- an amount that increases noticeably in warm weather or during exercise. In very hot, dry climates the water loss may be anywhere from 50 to 100 percent. Perspiration acts as a thermostat for controlling the temperature of the body. The cooling effect of the evaporation of water from the skin allows the inner body to maintain an even temperature regardless of the ambient or environmental temperature. Humid weather inhibits this natural evaporation and makes a person feel uncomfortable.

Most experts agree that the liquid equivalent of 6-8 glasses of water per day is sufficient for adults.

The question of inadequate water intake is especially important for athletes and others involved in strenuous physical activity. The relatively large amount of water an athlete may lose during competition is a large loss of water, in amounts of up to 4 or 5 quarts. Failure to replace this water can mean fatigue, salt depletion, and eventually more severe damage to the body. “Sport drinks” are considered of little value, and salt pills should be used only on the advice of a physician.

There is no reason to avoid drinking water with meals. In fact the practise has no known ill effect just as long as the food is chewed sufficiently and the temperature and amount of water ingested is moderate. Excessive amounts of water, though, can dilute the digestive juices.

Water’s role in the body is so vital that experts strongly recommend and urge you to consume adequate amounts, especially if you are active, live in a hot climate or are suffering from a fever. No matter what your condition, frequent water breaks will improve your performance and health.
Skin Type

Normal
Normal skin is soft, smooth supple & **not** prone to eruptions. It has a healthy glow.

Dry
Dry skin is characterized by a coarse, and pore less appearance with fine lines, especially around the eyes and mouth. Dry skin lacks moisture as a result of under functioning sebaceous glands.

Oily
Oily skin has a tendency to develop blackheads, whiteheads and enlarged pores. An oily skin condition is caused by over functioning sebaceous glands. Pores can be clogged with make-up and debris as well as oil.

Shiny and sallow (Yellow and pasty), oily skin often has blackheads and acne.

Combination
Combination skin is characterized by a pore less and smooth appearance on the cheeks, but with enlarged, clogged pores on the nose, forehead and chin.

Oily secretion- usually forehead, nose and chin and areas of dry skin.

Problem
Problem/oily skin is characterized by an oily and shiny appearance with a tendency to develop blackheads, whiteheads and pimples. Surface dryness may also be experienced due to improper cleansing with alkaline soaps or harsh acetone based astringents. Prone to blackheads, acne and spots, Problem skin is often oily.

Sensitive
Sensitive skin reacts readily to a variety of factors such as specific chemicals, airborne debris or certain skin care ingredients (fragrances and chemical preservatives top the list). Symptoms of sensitive skin include blotchiness, breakouts or excessive dryness. Dry and prone to flaking, itching and redness, sensitive skin has a tendency toward allergic reactions and broken capillaries.

Mature
Mature skin loses elasticity and its ability to retain moisture. Mature skin exhibits signs of aging such as fine lines, wrinkles and sagging.
Skin types are hereditary and are the result of oil glands functioning. Skin types can be classified into three categories, oily, normal and dry. In most cases, individuals have a combination of skin types such as oily T zone (around the eyes and nose) and normal cheeks. Of course, these skin types occur in varying degrees, such as very oily or very dry, slightly oily or slightly dry.

The notion that one person’s skin can be oily and dry is more commonly confusion in concept than reality. For example when people describe the skin as having been oily and all of a sudden being dry, they are referring to an oily skin type that is losing moisture because of over drying. This is usually caused by excessive use of astringents, soaps and/or scrubs in an attempt to reduce the amount of oil secretion. While the skin is an oily type, this dryness should be considered a skin condition and is properly referred to as dehydration - a lack of water moisture rather than oil.

In general, there seems to be such an obsession with oiliness that people forget about moisture. To hear “I don't need a moisturizer, my skin is oily” is quite common. It is important to remember that the skin has oil and water, and that both are important for its beauty and retarding the aging process.

Normal skin
Normal skin has perfect hydration, muscle tone and resilience produced by moisture and the adipose tissues. There is a strong biological activity at the basal layer, blood circulation is active, and the metabolism is balanced. Normal skin looks soft, moist, plump and dewy and has a healthy glow and color. The corneum layer shows a fine texture, and there are no visible wrinkles, fine lines or open pores.

Aging is the primary factor that deteriorates normal skin. Other factors include insufficient water intake and an inadequate diet. Tea, coffee and sodas do not make up for water as the body processes them differently. Food devoid of vitamins, enzymes and amino acids does not provide the cells with the nourishment necessary for cellular reproduction and growth. Improper skin care such as lack of cleansing is quite prevalent in children and teenagers due to the lack of skin awareness. The use of harsh soaps and scrubs, climate and environment contribute to the deterioration of normal skin. Sun exposure and exposure to the elements without protection dries, dehydrates and ages the skin.

Normal skin requires proper cleansing, morning and evening. The consistent use of protective moisturizers during the day to prevent moisture loss and hydrating creams at night is essential. An occasional exfoliation is also beneficial. Sun protection is extremely important, even for children.

Children should not be allowed on the beach without a proper sunscreen or in the snow without a good protective cream.

Oily skin
Oily skin is a hereditary condition that develops due to over active sebaceous glands. This activity is controlled by the androgen, or masculine hormone. Oily skin can be recognized by its shiny, thick and firm appearance. Pores look enlarged, usually due to oil trapped in the follicle. Enlarged pores become aggravated with a dehydrated condition. An oily complexion tends to look dirty and neglected, occasionally with blemishes on the chin or the forehead area, and feels oily to the touch.

Hot and humid climates tend to exacerbate oil gland secretion making the skin oilier. Oily skin problems can be aggravated by the misuse of skin care products and the tendency to dry the skin either through the use of harsh soaps or the excessive use of astringents and scrubs. Over stimulation of skin functions through scrubbing or stimulating massage should be avoided.

Exfoliating products, such as Alpha Hydroxy acids (AHA’s) and exfoliating enzymes, help improve the look and texture of oily skin. Products with active substances, including botanicals that may help regulate or reduce oil gland secretions are also appropriate. These could include but are not limited to, royal jelly, Vitamin F and Rosemary. Mint and Thyme act as solvents on fats with an added action on the sebaceous glands.
Care requires thoroughly yet gently cleansing, morning and evening. Daytime protective moisturizers will help the skin maintain its suppleness and moisture. Evening creams should help regulate oil gland secretions. It is most important to keep oily skin clean and hydrated with appropriate cleansing and care. AAHA exfoliators and weekly use of enzyme peels is highly recommended. When properly cared for, this is a preferred skin type since it delays the wrinkle process.

**Dry Skin**

Dry skin develops as a result of sebaceous gland under activity. Skin dryness, though hereditary like skin oiliness, also results from the aging process. As all body activities slow down, oil gland activity slows down as well. Dry skin tends to be dehydrated. Its lack of oil diminishes its ability to retain moisture since oil in the skin acts as a natural barrier against moisture loss. Dry skin is characterized as very fine, overly delicate and thin. Lack of sufficient oil secretion deprives the skin of sufficient “glue” to certain cells in the Corneum layer. As a result, dry skin has fewer cells in the corneum layer than oily skin. In dry skin, pores are almost invisible. The skin tends to wrinkle easily and is often filled with tiny superficial lines.

Dry skin tends to be aggravated by exposure to the sun, wind and heat. Improper skin care, such as excessive lubrication and lack of protection against moisture loss especially during the day, further exacerbates this problem.

Care for dry skin should include daytime protection using products containing sealants such as silicone or collagen based products. These products form a layer on the surface of the skin and reduce moisture loss. In addition, a program of good skin nourishment and lubrication with appropriate night creams is highly recommended. The use of nourishing, hydrating masks is also advisable for dry skin. Appropriate ingredients for dry skin can include, but are not limited to, Vitamin E (usually listed as Tocopherol), Ajidew, ginseng, dandelion extract, avocado oil, macadamia nut oil and some of the newest ingredients such as hyaluronic acid, ceramides and mucopolysaccharides.
Bacteriology
Bacteriology

Ancient peoples had no knowledge of science and regarded disease as supernatural in origin. They believed that the gods sent disease, pestilence and harmful or unnatural occurrences as a punishment for their wrongdoings.

With the advancement of the microscope by Anton Van Leeuwenhock came the study of bacteria, molds, protozoan, red corpuscles, plants and animals.

**Bacteriology is the science that deals with the study of micro organisms called bacteria.**

Louis Pasteur, a French Bacteriologist and chemist proved that the activity of microbes caused fermentation and decomposition of substance.

You as the spa practitioner must know how the spread of disease can be prevented and what precautions to take to protect your health and that of your client. Dirty hands and nails can spread infectious bacteria. It is the Spa Practitioner’s responsibility to understand and follow the guidelines set out by health departments and the Cosmetology board.

Bacteria

**Bacteria are minute one celled vegetable micro-organisms found nearly everywhere. They are especially numerous in dust, dirt, refuse and diseased tissues. Bacteria are also known as germs or microbes.**

Bacteria do exist in the skin as well as the air, water, on clothing and beneath nails. Bacteria can only be seen with the aid of a microscope.

Most bacteria are nonpathogenic organisms (helpful or harmless microbes) which perform many useful functions such as decomposing refuse and improving soil fertility. Saprophytes (non pathogenic bacteria) live on dead matter and do not produce disease.

Pathogenic organisms are harmful and, although in the minority, produce disease when they enter plant or animal tissues. To this group belong the parasites which require living matter for their growth.

During the active stage, bacteria grow and reproduce. These microorganisms multiply best in warm, damp, dark or dirty places where sufficient food is found.

When they reach their largest size, they divide into two new cells. **This division is called mitosis. The cells formed are called daughter cells.** When the conditions for growth become unfavorable, bacteria either die or become inactive.

Certain bacteria, such as anthrax and tetanus form spherical spores with tough outer coverings during their inactive stage. The purpose is to be able to withstand periods of famine, dryness, and unsuitable temperatures. In this stage, spores can be blown around and are not harmed by disinfectants, heat and cold.

Certain bacteria have mobility other than being blown around etc. Bacilli and Spirilla are both mobile and use hair like projections, known as flagella or cilia to move about.

There can be no infection without the presence of pathogenic bacteria. An infection occurs when the body is unable to cope with bacteria and their harmful toxins. A **local infection** is indicated by a boil or pimple that contains pus. A **General infection** results when the bloodstream carries bacteria and their toxins to all parts of the body, as in syphilis.

The **presence of pus** is a sign of infection. Bacteria, waste matter, decayed tissue, body cells, and living and dead blood cells are all found in pus. Staphylococci are the most common pus forming bacteria.
A disease becomes **contagious** or **communicable** when it spreads from one person to another by contact. Some of the more common contagious diseases that prevent a spa practitioner from working are tuberculosis, common colds, ringworm, scabies, head lice, and viral infections.

**Filterable viruses** are living organisms so small they can pass through the pores of a porcelain filter. They cause the common cold and other respiratory and gastrointestinal infections.

**Parasites** are organisms that live on other living organisms without giving anything in return.

**Plant parasites** or **fungi** such as molds, mildews and yeasts, can produce contagious diseases such as ringworm and favus, a skin disease of the scalp.

**Immunity** is the ability of the body to destroy bacteria that have gained entrance, thus to resist infection. **Natural immunity** is inherent resistance to disease. It is partly inherited and partly developed through hygienic living. **Acquired immunity** is something the body develops after it has overcome a disease, or received through inoculations.

A **human disease carrier** is a person who is personally immune to a disease yet can transmit germs to other people. Typhoid fever and Diphtheria can be transmitted in this manner.

Bacteria can be destroyed by disinfectants and by intense heat achieved by boiling, steaming or burning, and with ultraviolet rays.

The body also has a second line of defense that it uses to defend itself from harmful bacteria and that is by producing inflammation. Redness and swelling reveal an increase in temperature and metabolic activity.

**You must refuse to perform a service for a person, who obviously has a contagious disease or infection, you shall suggest, tactfully, that the client see a physician.**
Sanitation
Sanitation

Sanitation is one of the most important aspects of the spa profession. Not only is your personal hygiene at issue, but cleaning of your location of employment is especially important to yourself as well as your client. As we have mentioned before, the health board requires that you know certain things to keep your spa clean and safe to the public. In this chapter, we will discuss sanitation methods within the spa environment as well as general guidelines for keeping yourself and others safe and contaminant-free.

**Sterilization** is the destruction of all forms of microbial life (bacterial spores, fungi and viruses) in or about an object, by heat (steam or hot air), chemical sterilant (sodium hypo chlorite) or gas (ethylene oxide)

Disinfection is the process that eliminates many pathogenic (disease producing) micro organisms on inanimate objects with the exception of bacterial spores.

Using only stainless steel bowls and hard non-porous materials helps the clean up process significantly as all of these items may be effectively disinfected.

**Laundry**

Sheets or towels that may have blood on them must be washed in hot water and bleach. Under the OHSA act, these regulations must be followed. Latex gloves must be worn when handling these items. An inspector visiting your spa will be searching for indications of sanitation practises and wanting to see that you have proper disposal practises. All product must be clearly labeled. Bleach and rubbing alcohol are universal disinfectants for spas and must be on hand.

**Dry Heat**

Dry heat is a method for sterilizing objects in a temperature range between 320 F. and 330 F. This method is commonly used in the spa and Esthetics industry due to the low cost of the equipment.

**Chemiclave**

Chemiclave is a method of sterilization with a short cycle time of 20 minutes, at 270 F. at 20psi.

**Sterilization classification**

**Critical objects**:  
- Comes into contact with the blood  
- Comes in contact with body fluids

Critical objects are cleansed with steam or dry heat

**Semi-critical objects**  
- Comes in contact with mucous membrane  
- Comes into contact with non-intact skin  
- e.g. facial machine

Semi-critical objects are cleansed with sterilant, dry heat or steam

**Non-critical objects**  
- Comes into contact with the skin  
- No risk of coming into contact with body fluid  
- e.g. massage table, sink, bowl
Non critical objects are cleansed with liquid disinfectant- diluted bleach, rubbing alcohol, other commercially available agents.

Bleach dilution must be clearly labeled.

Hydrogen peroxide has the ability to be antibacterial, antiviral, antisporicidal and antifungal. Commercially available 3% hydrogen peroxide is a stable and effective disinfectant when used on inanimate or non-critical surfaces.

Ethyl or isopropyl alcohol are rapidly antibacterial, antituberculous, antifungal and antiviral, but do not destroy bacterial spores. They are not recommended for high level disinfection or critical objects.

Remember that all disinfectants not in their original packaging must be clearly labeled and the percentage of the mixture noted. If you are inspected, you will be expected to know what you have on hand and what each solution is for. This does become a serious issue in the spa at which you are employed. Not all follow the rules and regulations but you as the spa practitioner should know what is expected of you and how to clean up after your clients and perhaps someone else’s as well.

Within the spa there are many services offered and maintaining a high regard for the rules of sanitation and disinfection will keep your place of business a cut above the rest. Always observe the rules and regulations of cleanliness.

Remember to wipe off product bottles after each use with a disinfectant; you client will note a bottle that is half-empty or splattered. Take the extra minute to make the necessary cleaning duties a daily chore and your spa and reputation will precede itself.