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## Unit 15

## Balneotherapy

### 1. Warm-up

#### *Some traditional English proverbs:*

Practice makes perfect.

East or west, home is best.

Where there is a will there is a way.

**Do you know any other English proverbs ?**

### 2. Reading

#### Task 1

**Read the text “ Balneotherapy“ and underline all –ing forms, then use them in new sentences.**

**Balneotherapy** (from Latin: balneum, "bath") is the treatment of disease by bathing, usually practiced at spas. While it is considered distinct from hydrotherapy, there are some overlaps in practice and in underlying principles. Balneotherapy may involve hot or cold water, massage through moving water, relaxation or stimulation. Many mineral waters at spas are rich in particular minerals (sulfur, selenium, radium) which can be absorbed through the skin. Medicinal clays are also widely used, which practice is known as 'fangotherapy'.

Balneotherapy may be recommended for wide range of illnesses, including arthritis, skin conditions and fibromyalgia. As with any medical treatment, balneotherapy should be discussed with a physician before beginning treatment, since a number of conditions, like heart disease and pregnancy, can result in a serious adverse reaction.

Scientific studies into the effectiveness of balneotherapy tend to be neutral or positive, finding that balneotherapy provides no effect or a placebo effect, or that there is a positive effect. However, many of these studies suffer from methodological flaws, and so may not be entirely reliable. A 2009 review of all published clinical evidence concluded that, while available data suggest that balneotherapy may be truly associated with improvement in several rheumatological diseases, existing research is not sufficiently strong to draw balneotherapy is the art of water therapy, and one of aromatherapy's best friends. There is nothing quite so soothing and relaxing as a leisurely soak in a hot bath. As the warmth of the water cradles your physical body, providing relief from the constant pull of gravity, your psyche is refreshed and restored, the weight of the world momentarily lifted.

Water is nature's greatest and most effective solvent. It acts as a liquid suspension, carrying a

variety of minerals and chemicals, depending on its source. When we immerse our bodies in a warm bath, our skin rapidly begins to absorb chemicals that are suspended in the water. These chemical components can make their way to our bloodstream in as little as 2 to 15 minutes. It will take a normally healthy person from half an hour to three hours to eliminate most of these chemicals through the expired breath and urine. In unhealthy or obese people, this process may take up to 10 hours. That is why adding essential oils to a bath is such an effective aromatherapy treatment.

The premise of balneotherapy is built on this solvency. Just as we absorb the essential oils we intentionally add to the water, we absorb a variety of other chemicals and minerals suspended in our water. No two waters are exactly the same. Spring waters, often thought of as pure, actually contain a variety of minerals. It is the presence of these minerals, from the depths of the earth, that makes certain spring waters highly valued for their curative properties.

The amazing virtues of water have been sung throughout the ages. Ancient myths featured countless sea nymphs, mermaids, and water goddesses. It's no wonder that most ancient gods and goddesses associated with water were believed to be sources of life, fertility, and fecundity. Water is our element. We most likely evolved from aquatic creatures. In any event, our first months of life were spent floating in an amniotic bath. In our dreams water symbolizes the ebb and flow of our emotions. We use water for cleansing, refreshing, and relaxing. Water is the basis for our body's evaporative cooling system. It flushes out toxic wastes, plumps up our cells, and lubricates our moving parts. Water is crucial to our survival.

### **Eight ways Balneotherapy Heals:**

- Bathing in hot springs gradually increases the temperature of the body, thus killing harmful germs and viruses.
- Thermal bathing increases hydrostatic pressure on the body, thus increasing blood circulation and cell oxygenation. The increase in blood flow also helps dissolve and eliminate toxins from the body.
- Hot springs bathing increases the flow of oxygen-rich blood throughout the body, bringing improved nourishment to vital organs and tissues.
- Bathing in thermal water increases body metabolism, including stimulating the secretions of the intestinal tract and the liver, aiding digestion.
- Repeated hot springs bathing (especially over 3- to 4- week period) can help normalize the functions of the endocrine glands as well as the functioning of the body's autonomic nervous system.
- Trace amounts of minerals such as carbon dioxide, sulfur, calcium, magnesium, and lithium are absorbed by the body and provide healing effects to various body organs and system. These healing effects can include stimulation of the immune system, leading to enhanced immunity; physical and mental relaxation; the production of endorphins; and normalized gland function.

- Mineral springs contain high amounts of negative ions, which can help promote feelings of physical and psychological well-being.
- The direct application of mineralized thermal waters (especially those containing sulfur) can have a therapeutic effect on diseases of the skin, including psoriasis, dermatitis, and fungal infections. Some mineral waters are also used to help the healing of wounds and other skin injuries.

### **Indications for Balneotherapy:**

Over the several hundred years during which the science of medical balneology has developed, physicians have been able to identify the health conditions that can best be treated by healing springs. These are examples where is balneology suggested to help.

#### ***CHRONIC DISEASES***

Chronic rheumatic diseases

Functional recovery of central and peripheral neuroparalysis

Metabolic diseases, especially diabetes, obesity, and gout

Chronic gastrointestinal diseases

Chronic mild respiratory diseases

Circulatory diseases, especially moderate or mild hypertension

Peripheral circulatory diseases (affecting the hands and feet)

Chronic skin diseases

Psychosomatic and stress-related diseases

Autonomic nervous system dysfunction

Vibration disorder (a middle ear disorder affecting balance)

Sequela of (conditions resulting from) trauma

Chronic gynecological diseases

#### ***CONTRAINDICATIONS***

If you have any illnesses or diseases, or are pregnant, consult with your physician before using spa therapy.

#### ***CAUTIONS***

Avoid soaking in a hot spring alone, and don't use a spa if you are on heart medications or under the influence of other drugs or alcohol. Make sure not to overheat, drink plenty of cool water, and use private pools if you have a skin disease. The elderly should use extra caution.

### **A Brief History of the Bath**

Although the Romans may not have invented the bath, they raised bathing to a high art. Roman citizens lingered for hours in communal hot baths, where they socialized, conducted courtship, and even sealed business deals. They built lavish baths wherever they found natural hot springs. The remains of Roman baths are still evident throughout Europe, the Mideast, and North Africa. The Roman reverence for bathing has survived in Turkey, where patrons still visit public baths to be soaped, steamed, and scrubbed clean by attendants. Meanwhile, a highly ritualized bathing culture has evolved in Japan as well. Whole towns exist as destination resorts around Japanese natural hot springs. The harried Japanese make annual

visits to these springs, and in between find time for frequent visits to the "Sento" - the local communal hot-tub house. Japanese homes are for the most part poorly heated, and the family bath becomes an important source of warmth in winter.

With the fall of the Roman Empire, bathing fell out of favor in Europe. For the next few centuries the practice was considered suspect and unhealthy, immersion a frightening and distasteful experience. Washing was an unpleasant and infrequent necessity, to be carried out quickly and furtively, with a basin of cold water.

*A balneotherapist may choose to utilize different types of water therapy in order to treat diabetes or other illnesses that impact the flow of blood to the extremities. Mineral baths may be utilized as part of the treatment for various types of skin problems. Even sea water improves medical condition. Hot springs often are used to help with circulation issues caused by may be employed when the focus is on relieving stress or calming jangled nerves.*

Both hot and cold water may be used in various types of balneotherapy treatments. Some of hydrotherapy solutions involve the use of moving water as part of the process of treatment. Generally speaking, warmer water is used when there is a need to soothe or relax. Colder water is utilized when there is a need to stimulate the body and mind.

Balneotherapy involves treating health problems by bathing, usually in hot springs and other naturally mineral-rich waters. Long practiced in traditional medicine systems all over the world, balneotherapy is often offered at spa, wellness centers, and hot springs resorts. Balneotherapy can help treat a number of health conditions, including arthritis, respiratory disorders and high blood pressure. Balneotherapy may help to treat fibromyalgia as well.

### ***The Science Behind Balneotherapy***

Balneotherapy is thought to promote healing by increasing circulation, encouraging detox and easing stress. In addition, the minerals found in hot springs (such as sulfur and magnesium) are said to fight off illness by nourishing the organs and stimulating the immune system. Although few studies have tested these health claims, some research suggests that balneotherapy may help with certain conditions. Here's a look at several key study findings.

### ***Balneotherapy and Low Back Pain***

In a 2005 study from *Research in Complementary and Natural Classical Medicine*, scientists found that bathing in sulphurous mineral water may help alleviate low back pain. Compared to 30 back-pain patients who underwent a tap-water-based hydrotherapy treatment, the 30 patients in the balneotherapy group showed greater improvements in muscle spasms, tenderness, and flexibility.

### ***Should You Use Balneotherapy for Health Purposes?***

Due to the lack of scientific support for its effectiveness, balneotherapy cannot be recommended for any health condition. If you're interested in using balneotherapy to prevent or manage a specific health problem, make sure to consult your physician before beginning treatment.

**Task 2****Answer these questions.**

1. What do you know about water therapy (hydrotherapy)?
2. What is balneotherapy?
3. What types of diseases is balneotherapy recommended?
4. When the history of bath started?
5. Can be balneotherapy recommended for any health condition? Why not? (Explain your opinion.)

**3. Grammar Presentation****Verb + -ing**

The expressions below are the verbs that are followed by –ing [-the ing forms are used as object to a verb, direct or prepositional]:

admit	finish	avoid
wash	take	consider
listen	delay	watch

The –ing forms are used:

- after these expressions: excuse, mind, remember, thank for, sorry for, goot at, the idea of, the interest in, e.g.: Excuse my troubling you.
- after the verbs expressing positive or negative relationship - enjoy, like, prefer, be fond of, be keen of, hate, dislike, e.g.: I hate being late.
- after the verbs expressing beginning, ending or continuing the action as start, begin, stop, finish, go on, keep on, carry on, e.g.: They began talking about physiotherapy.

**Task 1****Complete the following sentences using –ing forms:**

1. I prefer \_\_\_\_\_ books to \_\_\_\_\_ films.
2. It is better to avoid \_\_\_\_\_ sleeping pills very often.
3. I can do what I want. You have no right to stop \_\_\_\_\_.
4. I am good at \_\_\_\_\_.
5. Keep \_\_\_\_\_.
6. Will you mind \_\_\_\_\_ the window for a few minutes?
7. I hate \_\_\_\_\_.
8. He finished \_\_\_\_\_ in this company in 2000.
9. Thank you for \_\_\_\_\_ me.
10. He considers \_\_\_\_\_ by plane to Prague.

**Task 2**

**Complete the instructions using the followed verbs:**

bend down, breathe in, breathe out, curl up, keep your knee straight, lie on your back, lie down, look straight ahead, put your head down, raise your leg, roll on to your back, sit down, sit up, slide your hand down, stand up, take off your clothes, tilt your head back, turn your head to the left, turn on your side, relax, show me what movements you can manage, tell me if it hurts.

1. Could you \_\_\_\_\_ as far as you can?
2. \_\_\_\_\_ with your feet together.
3. Could you just \_\_\_\_\_ on the couch?
4. \_\_\_\_\_ slowly and look over your left shoulder.
5. \_\_\_\_\_ and \_\_\_\_\_ your legs.
6. \_\_\_\_\_ your shirt and \_\_\_\_\_.
7. \_\_\_\_\_ on your side.
8. I want you to \_\_\_\_\_ into a little ball.
9. Tell me if \_\_\_\_\_.
10. \_\_\_\_\_ deeply and \_\_\_\_\_.

**Task 3**

Think of an examination a doctor frequently carries out. Write down the instructions a doctor would give the patient.

**4. Communication Activity**

**a.) Read the text below and describe your day in the physiotherapy department.**

**A day in the life of a physiotherapist**

Jana is a hospital physiotherapist. She works mainly with patients who have conditions or injuries affecting the lower extremities such as fractures, torn ligaments, and cartilage tears. Most of her patients are referrals from other departments in her hospital. She also works with patients in rehabilitation following orthopaedic surgery. Some are young people with sport injuries, others are elderly people who have had hip replacements. Among her therapies are manipulation, massage and exercises to keep the joints mobile and to strengthen muscles. Rehabilitating some patients means helping them to walk again using crutches or Zimmer frames.

**b.) Describe the pictures below.**



**Figure 15** Physiotherapy exercises

<http://www.thephysiotherapysite.co.uk/physiotherapy/exercise/simple-shoulder-exercises>

<http://www.thephysiotherapysite.co.uk/physiotherapy/exercise/simple-knee-exercises>

<http://www.thephysiotherapysite.co.uk/physiotherapy/exercise/simple-neck-exercises>

## Vocabulary

alleviate [ə'li:viet] – zmierniť  
 curl up [kə:l ap]- skrútiť sa  
 fibromyalgia [fai'brəumai'ældʒiə] - fibromyalgia  
 furtively [fə: tivli] – nenápadne  
 immersion [i'mə: ŝn]- ponáranie  
 jangled [dʒæŋɡld] – pošramotený  
 lavish [læviʃ]- bohatý, štedrý  
 reverence [revərəns]- úcta ku  
 scrubbed [skrabd]- vydrhnutý  
 slide your hand down [slaid jo:hend daun] – posunúť ruku dole  
 soothing [su: ðiŋ]- lahodný, ukl'udňujúci  
 sulphurous [salfərəs]- siričitý  
 underwent [andə'went] – podstúpil

## Revision Unit 10-15

### *Answer the questions*

1. What is the main goal of physiotherapy and what are the core skills of physiotherapists?
2. Explain the meaning of the key words: massage, hydrotherapy, electrotherapy, ergonomics, acupuncture, osteotherapy.
3. What do you know about aromatherapy and its cure?
4. What do you remember about the history of balneotherapy?
5. What types of disorders can be treated by balneotherapy?

### *Communication activity*

Describe your day during the practical lessons in hospital.

### *Translate*

1. acupressure is an ancient healing used the fingers to press the key points of the skin surface
2. increase blood circulation, energy levels and overall feeling of well-being
3. provide relief from head, neck and shoulder aches
4. promote the healing of injuries
5. prevent the painful chronic problems
6. physiotherapy accelerates healing of soft-tissue injuries