Introduction of Carbothera
What is Soda-spa?

Soda-spa refers to the warm water that dissolves carbon dioxide, another name for it is “Soda Bath”.

Among the Hot Spring Therapies in Japan, if the carbon dioxide dissolved in 1 liter warm water reaches 0.25 g or above (250ppm), it will be defined as Soda-spa. Warm water whose carbon dioxide reaches 1,000ppm or above will be called Soda-spa with high concentration.

It is said that the higher concentration of the Soda-spa is, the more effective it will be.

Its unique and definite functions have been proved in the medical industry, and are widely used in all aspects, while other hot springs haven't these functions.
What is natural Soda-spa?

Natural Soda-spa refers to hot spring wells up naturally under the condition that carbon dioxide is dissolved.

Carbon dioxide has the property that can not be largely dissolves in the high temperature hat water, so Japan, a country with active volcanic activity and the temperature of the hot spring is high, it is hard to meet Natural Soda-spa with high-concentrated carbon dioxide.

And there many high concentration carbonated springs well up up in European regions where the temperature of the hot spring is low. It was called “Heart Bath” from time immemorial, and it is popularized among people as a traditional therapy. Especially German’s “Baden-Baden” with famous hot springs which attracts people all of the world to head for there for the hot spring treatment.
On the other hand, artificial Soda-spa refers to carbon acid hot water with clean carbon dioxide dissolved in it. As described before, from the perspective of the properties of carbon dioxide, the hot water with high temperature can not dissolve carbon dioxide with high concentration. Therefore, Mitsubishi Rayon developed special technique which can make a large amount of carbon dioxide into the high-temperature hot water, so the equipment for the artificially made Soda-spa with high temperature has emerged.

Currently, this equipment is introduced in various fields such as medical institutions, medical service facilities, hydrotherapy facilities, the Beauty Parlor, fitness club, Hairdressing Parlor and so on, not only limited in medical treatment, but also in Beauty, Fitness fields, etc. In addition, With the emergence of family-used artificial Soda-spa, Soda-spa is handy for any body.
How is the effectiveness of Soda-spa?

1. There may be some tiny bubbles (carbon dioxide) that can not be visible with naked eye sticking on the skin.
2. When carbon dioxide is absorbed by the skin, the blood capillary will expand, which can lead to many hemokinesis.
3. Via the expansion of the blood capillary, the peripheral vascular resistance will be reduced, thus causing the fall of the blood pressure.
4. Through the improvement of the blood circulation, the algogenic substance and metabolic waste will be effectively removed.
5. Via the direct action on the automatic nerve (such as the reduction of pulse rate and so on), you can obtain the relaxing effect.
6. Via the increase of blood circulation, you can activate the metabolism.
7. As it is water quality of weak acid, so the skin is expected to be beautified via astringent effect (tightening the skin).
Soda-spa activates at various fields
Soda-spa activates at various fields

Care & Rehabilitation

In Europe, Soda-spa was deeply favored since the Rome Period. Carbon acid hot water bath was actively adopted at a rehabilitation facility called Kurmittelhaus, Bathing Therapy was established in Germany at that time.

Besides, some reports shown that Soda-spa was adopted in the facilities for the elderly people, and people who have difficulties in walking could walk easily after accepting the hot water bath, so on so forth. As to the new use methods, Soda-spa is expected to be further researched in the future.
Soda-spa activates at various fields

Beauty

After using the Soda-spa, most people will feel the skin is smooth and moist. In Italy, Soda-spa was used in the Beauty Field from long ago.

Artificial Soda-spa (1,000ppm) has the weak acid with pH 4.5~5.0 almost the same as the person’s skin, and it has the function of astringent that can easily astricit the skin, and the good environment is suitable for the finishing of the skin, skin care and hair care.
Relax & Health

As to people who are eager to enjoy the leisure and comfortable bathing after a hard working day, we recommend Soda-spa. Bathing in the Soda-spa, you can feel relax, and can experience sleep improvement as well. In addition, some reports stated that accepting artificial Soda-spa lavipeditum everyday can help.

Adopting carbon acid hot water bath as your living habit is helpful to the health of your family.
Soda-spa activates at various fields

Sports

As widely introduced that Soda-spa is the secret weapon that support the first-rate athletes, athletes can overcome the fatigue of the muscle after the sports.

In Japanese Olympic delegation, it was used in the teams such as Synchronized Swimming, Soccer and so on, even adopted by State-Run Sports Science Center. Soda-spa's use on Sports Science gets active day by day.
Carbothera Technologies
By now, it is hard to dissolve carbon dioxide with high concentration in the hot water. Via all the year round research and the newest technique, Mitsubishi Rayon successfully made high-concentrated Soda-spa of 1,000ppm or above. Mitsubishi Rayon developed three-layer gas exchange membrane on its own, and the ultrathin membrane (gas through layer) in the middle layer with the special functions can successfully prevent the passing of the liquid but permit the gas. When hot water passes through the middle of the membrane, carbon dioxide injected from the outer of the membrane will dissolve in the hot water, thus constituting Soda-spa with high concentration.
Carbon acid’s function on hemangiectasis

When carbon dioxide is absorbed by the skin, the blood vessel carries over more oxygen for expansion, the hemokinesis becomes smooth and the blood flow will be reinforced.

Sketch Map of Hemangiectasis

The hemokinesis becomes smooth
Consciousness Survey
Consciousness Survey

Worries under the healthy conditions

Periarthritis of shoulder ranks first, Fear of cold ranks second and Fatigue ranks third

One out of two Japanese suffers from “scapulohumeral periarthritis”, similarly, one out of three Japanese may feel “Fear of Cold” and “Fatigue” and have a sense of unease. It can be said that most of Japanese carry with them chronic “Healthy Problems”.

CARBOTHERA

MITUBISHI RAYON CLEANSUI CO., LTD.
Above 80% replied with “Anti-Fatigue” “relax and healing”

It can be said that bathing (as a most familiar solution) plays an important role in the treatment of modern people with hidden “health problem”. Bathing not only washes the body, there may be 90% of people expect “Anti-fatigue”, besides, 80% of them seek for “relax and healing”.

The users really feel the effectiveness of “Anti-fatigue” and “cosmetic results”

In fact, users who experience Soda-spa feel its “Anti-fatigue” function to the greatest extent. Soda-spa give the firm response to people’s anticipation of bathing. On the healthy aspect, the responses such as “scapulohumeral periarthritis is reduced” “sleep soundly”, “the pain of the body is lessened” and so on are continue to grow. In addition, most of users feel its beauty effect.
8 out of 10 people care about it.

When questioned “whether care about Soda-spa or not” after explaining the effect of the Soda-spa, 8 out of 10 people replied “they care about it”. Moreover, 80% of them answered they want to use it practically. As for the modern people with hidden “health problem”, Soda-spa is their desirable products.
Consciousness Survey

Conclusion

Expect “Anti-fatigue” effectiveness of Soda-spa

Expect to “relax” by Soda-spa

Expect to be more “healthy” by Soda-spa

Expect to be more “beautiful” by Soda-spa
Let’s enjoy Carbothera!
New Concept introduction of carbon acid
Head SPA hydrotherapy
Now Let me introduce Carbon Acid Head SPA hydrotherapy that is most welcome by Japanese women.
Carbon acid Head SPA hydrotherapy

What is Carbon Acid head SPA hydrotherapy

It is to finish the conditions of the hair and scalp, so as to make the assumed modeling become the possible and new professional tools. Relying on the effectiveness of the Carbon Acid, wash clean the smirch and the redundant drugs, and the hair seems to be regenerated. Whiling nourishing the damaged hair, try to improve the technique of the stylist further.
Carbon acid Head SPA hydrotherapy

Simple operation, further enhance the skills of the stylists.

Wash clean the smirch on the hair and scalp. The smirch that can not be washed clean by the water can be wiped off by carbon acid effect.
Carbon acid Head SPA hydrotherapy

The effect of the astringent will make the hair and scalp more healthy

The pH value of the Carbothera displays weak acid of 4.5～5.0.
It has astringent effectiveness on the hair and scalp that are washed clean.
Improve the stratum corneum to the normal situation, and the hair will be particularly glossy and smooth.
When the scalp is tightened, the hair will erect from the root, which can realize healthy and elegant modeling full of vigor and vitality.
The Carbothera with weak acid can effectively neutralize the alkali left by hair dye and perm.
Carbon acid Head SPA hydrotherapy

The effect of Carbon Acid promote the blood circulation of the scalp. When washing the hair, we will feel more relaxed. The strong cure effect that can not be obtained from ordinary hot water improves the value of the parlor tremendously.
Detergency of the Carbothera
Detergency of the Carbothera

Comparison of the Detergency

Check the condition of the scalp by Head Viewer...
Detergency of the Carbothera

Comparison of the Detergency

Wash clean with hot water

Wash clean with Carbothera
Detergency of the Carbothera

**Before**

**After**
Detergency of the Carbothera

After washing clean the smirch in the hot water

Carbothera has extraordinary wash effect
Detergency of the Carbothera

The test of sebum remove

Paint the PVC plate with camellia oil whose color is similar to human skin for the experiment.

After painting the PVC plate with camellia oil, soak it in the ordinary hot water and artificial Carbothera, there are tiny bubbles sticking on the camellia oil soaked in the artificial Carbothera, 5 minutes later, the sebum will be floating on the surface of the water as if it was pushed upward. On the other hand, there is no change appears in the camellia oil soaked in the ordinary hot water.
Benefits of Carbothera
Carbon dioxide gas dissolved in the waters of the artificial carbonated hot spring is one of the few substances that are absorbed directly into the skin. It promotes blood circulation through vasodilation, in turn stimulating the delivery of oxygen and nutrients throughout the body.
The artificial carbonated hot spring has a detoxifying effect on the hair and scalp, promoting blood flow at the skin surface and stimulating metabolism. It also cleans out pores clogged with sebum and helps to restore the health of the hair and scalp.
After washing clean with Carbothera, even if the hair conditioner is not used, the hair will be still smooth and glossy.
Benefits of Carbothera

Alkaline removal experiment

Hair samples soaked in perming fluid to observe pH transition

Universal indicator (pH 7 neutral)

First perming fluid
Before perm
Rinsed in water
Second perming fluid
Soaked in Soda-spa

pH7 → pH8 → pH9 → pH6 → pH5
Neutral → Alkaline → Weakly acidic
Perm and hair color treatments tend to make hair pH more alkaline because residues of alkaline agents remain in the hair. If not removed, these residues can encourage leaching of pigments and proteins, reducing the effective life of the treatment and exacerbating hair damage. Simply rinsing the hair in the weakly acidic waters of an artificial carbonated hot spring as the final stage of a standard perming fluid treatment can improve the pH balance of the hair and scalp for enhanced overall hair care.
Benefits of Carbothera

◆ The rahagades hands of a beautician of more than 20 years old

◆ Atopic Dermatitis women more than 10 years old

◆ (Seborrheic Dermatitis) of women more than 20 years old
Carbothera menu
Basic cores for Head Spa

- **Wash with Cabothera for (5-6 minutes)**
- **Wash with shampoo**
- **Check the scalp with the viewer**
- **Massage**
- **Combing the hair style**
- **Wash with shampoo**
Basic cores for Pram/Color

- Wash with shampoo
- Wash with Cabothera

Perm ①
- Wash with Cabothera for (2-3 minutes)
- Perm ②
- Washing

Perm ②
- Wash with shampoo

Dyeing
- Wash with Cabothera for (2-3 minutes)

Use hair conditioner
- Wash with Cabothera
- Combing the hair style
Introduction of performance
Products line up
Products line up

Carbothera-SPA3001

Carbothera™-Shower (6L/min-8L/min)

Wash and care the hair and skin with the carbon acid.
It is widely introduced in the Beauty Parlor, Spa and Beauty Salon so on so forth.
Carbothera™-Standard (8L/min)

Simply implement carbon acid bath, with simple remote control and operation that can be installed inside or outside the room.

It is widely introduced in the Spa, Beauty Salon and home so on.
EXCEL CARBO

With Care and Welfare Facilities as the foremost choice, introduce differentiated equipments in the public bathing pool, fitness club, Beauty Salon and so on as the center of the facilities, which won the good reputation from many enterprise operators.
Rated Manufacturing and high-capacity manufacturing initiated the industry and is the largest one within the industry.
Carbon dioxide can not only dissolve in the running water, but also dissolve in the well water, natural hot spring and medicated bath salt.
Realize low operation cost brought about by the improvement of efficiency and performance of gas dissolution.
It is a kind of safe and energy conserving product that pursue the emission reduction mechanism and so on for carbon dioxide.
Carbothera™-K101 Used for Partial Bathing (5, 10, 20, 50L)

It is a handy container, namely, a kind of medical used hot water bathing equipment that can easily conduct Carbothera treatment and partial bathing.  
※ Accord with European and U.S. Safety Standard [CE Marked]
Carbothera Q&A
Q&A

Q: What is the difference between Carbothera and massage bathtub?

A:
The bubbles of Carbothera is Carbon Dioxide. The carbon dioxide dissolved in the hot water slightly covers the body, making people relax just like hot spring, but the bubbles of the Massage Bathtub is air, so the bubbles pushed out will exert massage effect on the body.
Q: Whether Carbothera is beneficial to the skin or not?

A:
Carbothera displays weak acid with pH value of 4.5, which is moderate to the skin. It is said that its astringent effect can make the skin smooth and glossy. It is good choice for people who are apt to suffer from hand chap!
Q&A

Q: Whether Carbon dioxide safe or not?

A:

Carbon dioxide is a kind of gas with great stability. The high concentration of Carbothera is 1,000 ppm, while the concentration of carbon dioxide in the carbonated drinks such as ordinary beers, coke, soda water and so on is 3,000~4,000 ppm. In addition, human beings and animals can absorb oxygen and exhale carbon dioxide.

Carbon dioxide absorbed from the skin will be delivered to the lung via hemokinesis, and will be coughed out by exhalation. Carbothera’s absorption amount of carbon dioxide is about 1/4 of the carbon dioxide generated by the metabolism at the quiet moment.
Q: Does Carbothera can be enjoyed at home?

A:
Carbothera can be enjoyed at home by the artificial Carbothera equipment sold by Mitsubishi Rayon, family used bathtub, shower. As to the type of the equipments, there are circular type that install equipments on the bathtub in use and water supply type that directly connected to the water heater and other types.
Q: Will the carbon acid disappear or not?

A:
When accumulating in the bathtub, carbon dioxide in the hot water will reduce by 10% per hour, and it will be reduced faster when simultaneously implementing heating and blending. And it is suggested to be used as soon as possible.
Q: What temperature is the best for the Carbothera?

A:
Please select the temperature suitable for you for bathing, and the temperature will not be specially designated. In order not to increase the burden on the body, generally, the recommended temperature is 37~38°C. In general, the temperature should be not too hot nor too cold, and when using carbon acid hot water, you may feel as if 2°C warmer.
Q: What is the appropriate bathing time?

A:
10~15 minutes is the best.
When bathing, it is OK even if use for 2 to 3 times a day.
However, due to the strong detergency of Carbothera, when washing hair with it, it is better to use it once every 3~4 days.
Q: Does the application of Carbon Dioxide ruin the environment or not?

A:
Carbon Dioxide used for manufacturing artificial Carbothera is carbon dioxide discharged from the heat-engine plant and all sorts of machinery equipments, loaded in the gas bottle, namely, it reuses carbon dioxide that is to be directly discharged into the air. Therefore, artificial Carbothera is beneficial to environmental reuse of the wastes.
Thanks!

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