Physiological action as a Therapeutic use of Cold from Bathing.

[Signature]
Before entering on the considerations of the action and uses of cold and warm bathing, we shall premise a few remarks on the history of the various ancient baths, with a short description of the methods of bathing practiced by different nations.

The practice of bathing seems to have been known from the earliest periods of antiquity. Reference from the records of sacred scripture that it was parallel among the ancient Hebrews both as a medicinal and as a hygienic agent.

Amongst various nations, the ancient Egyptians, the Etruscans, the Syrians, and especially among the Greeks and Romans, bathing has often been much coveted, chiefly as a luxury and for health.

The Greek and Roman baths seem to have been very similar to each other; of the former one, there are very clear accounts left us, but of the latter, various descriptions have been made by the ancient Roman writers.

Roman baths. During the rise of the Republic, the baths were all more plain and unassuming, but as the empire grew in wealth
and power they became large and magnificent.

The ruins of the Thermæ of Caracalla and Diocletian

are partly from this. The Romans held both

public and private baths, the former being at

first chiefly instituted for the use of the lower

orders of the people, the latter being confined

to the Thermæ of Caracalla and Diocletian.

The first time however the public baths were

combined common to all orders, the lauriers

themselves being even in the habit of bathing

in them. The Romans took their baths generally

about eight o'clock in the morning, and also

before the bath repeats in the afternoons; the

more temperate of them, bathing after exercise

and before meals, but the colder and melancholier

bathers before and after meals, so as to give

themselves an appetite for delicacies and also
to prom the digestion. The lauriers were in

the habit of doing this. (Sest. 1st. 142)

The principal baths at Rome were those of

S. Agrippa, S. Pa. Caracalla, and Diocletian,

then even called Thermæ.

The discovery of baths among the ruins of

Compiegni in 1824-25 has thrown a great
deal of light on this interesting subject. They seem to have been Balneum or Public Baths, and are complete and in excellent preservation.

The essential parts of a Roman bath seem to have been the following:

The Frigidarium or dressing room, where the bathers before taking their bath, undressed themselves, and where they dressed themselves after the bath was over.

The Calidarium or Acutarium, where the bathers were warmed with hot air, and their frames.

The Aphesterium, a large apartment where they exercised themselves after the bath was over.

The Valdarium, which generally consisted of the Tepidarium room containing the warm bath at one end, and the Natatorium or cool bath at the other. In large establishments, this department was divided into two, one for the warm bath alone, the other for the laconicum and tepidarium. (Vitruvius).

The Calidarium or warm room containing the
hot bath. The apartment at the lower part of
the building, where the fires were placed to keep
up the heat, was called the tepidarium.

A balneum contained a large basin, called the
bathe, which was supplied from three large
baths or vats. (Villaricis) 100. The bathers
in hot water, and also doused themselves with
a plant called turpines, after which they went
to the tepidarium, and from this to the frigidarium
which sometimes contained a cold bath, and
where they were sometimes assisted by the slaves.

There were also swimming baths (natationes) in
connection with the frigidarium.

The Roman did not content himself, of
ocean baths daily, Aquae Sulis in the habit of
bathing three times a day during summer,
and twice a day during winter. He sometimes
took his meals while in the bath.

The Saracens bathed very luxuriously; the baths
were first rubbed with water by an attendant, and
then followed a process of friction, the cleansing of
the muscles, called shampooing. This process
generally lasted about an hour.

The Russian bath is very peculiar. The bather
First enters into a dry hot apartment, after sitting there for a certain time, an attendant comes in, and pours water on the floor of the apartment. Which is very hot. The water soon becomes scalding, and consists of the hot dry bath into a hot caldron bath. She is then dried and rubbed well, which operation is followed by the application of tepid water; after this is finished, the bather plunges into cold water, or if it is winter, he cools himself among the snow.

First bath.

See in this account of the manners, customs, etc., of the modern Egyptians, gave an admirable account of the method of bathing in the hardest bath of Grand Cairo. To say that it is about 70 public baths in that city. The bather, before undressing himself, directs himself of his valuables of he has any, giving them to the lesson of the bath who looks after them as in a check. The lesson also takes off his shoes, and goes back of a wooden step to put on. The pavement being oiled, the spirit of a apartment the latter has generally three or four elevations or raised parts of the floor, which
an earled with marble, and in the center of which, there is a fountain of hot water, raised on an octagonal basement. Constructed of stone, base with marble. In the center the baths generally prefer to undress in the hot apartment or "Day tower" as it is called, between which and the first apartment there is a passage. The "Day tower" is the spirit of the house apartment, but it is less famous than the principal apartment of which it forms an ante-chamber. Then the visitor has undressed himself, and atoned himself with various apparatus, which he dons for the purpose of getting around his head, and on his head, the attendant opens the door of the inner apartment to him.

In the center of this apartment there is a large fountain of hot water, surrounded by marble seats, and falling from a height hollow cavity, in the middle of which is a high octagonal lead. The "Day tower" is at one of the angles, two small chambers which from each other, one containing a tank of warm water, the other containing a trough in which are two taps, one for cold, the other...
for hot water, occupying the angles; while the
fourth angle is occupied with the chamber,
which contains the fire and the hot water boiler.
The water having entered the principal chamber
from the pipes, from the heated heat produced
by the hot water of the tank, furnaces boiler.
The attendant of the bath comes to time, and
while the bather sits or one of the marbles seats
he begins the first operation, that of cracking
the joints of the bather, then he kindles his
flame, after this he adds the bather Jack with
a bated Fort of clay. The next operation is
this, he rubs the flesh of the bather with a
white cloth bag & makes the bather dip himself
in one of the tanks. He is then taken
to the chamber. When the two tanks are, and
a rapturi having been given to time, the
attendant (bather) then calls with "Haf" (flour
of Palm tree) and soap and water. The soap
is then covered off both water, and the bather
having finished bathing, covers himself with
dry towels and returns to the bay terrace or
second chamber, and reclines on a mattress
provided with clothes. Then he remains
for half an hour or so, dipping his feet or nothing, while an attendant rubs the ole of his back or masses his body and head.

Baths and Bathing.

The word bath signifies a convenient receptacle of water, used for the purpose of cleaning or for the treatment of ailments. A mere extended sense, it means, the immersion of the whole body or a part of the body in some liquid different from that in which it is usually placed, such as water, air, or some other fluid simple or medicated. Bathes are most conveniently divided into cold and hot bathes; these two divisions being subdivided according to the difference in the effects produced by the bath at different temperature. The more general subdivisions are the following:

1. The cold bath 55°-60° F.
2. The cool bath 60°-75° F.
3. The temperate bath 75°-85° F.
4. The tepid bath 85°-90° F.
5. The warm bath 90°-98° F.
6. The hot bath 98°-102° F.
The Cold Bath.

As general physiological effects on the body, the first effect noticed is a sensation of cold, which produces a sudden impression on the nervous system called a "shock". This is generally a greater of less degree of tingling, accompanied by a convulsive sensation.

After the shock, the feeling of cold gradually lessens off, and gives place to a sensation of warmth, the pulse becomes quick, and the pulse fills. If the stay in the bath be prolonged, the pulse again falls, the feeling of warmth vanishes, and there comes another chilling and shivering, the skin becomes pale, the body contracts.

These phenomena are not unpleasant to those used to a cool and healthy individual, and especially if he do not stay too long. If however the bath is late continued, the sensation of cold increases, along with the shivering, and languidness, tapetaste, and deprecation of the body are gone to the secrets. On the other hand if the individual leaves the bath before the shivering comes on, or after any short stay in the bath,
Reaction is speedy and great; the pulse becomes fuller and stronger, an agreeable flush spreads over the whole body, on account of the cutaneous circulation being increased. Perspirations come on, especially if friction be applied after coming out of the bath. The animal powers feel invigorated and regained. Special effects of cold bath.

The above-mentioned phenomena of cold bathing would lead us to divide the effects into two classes:

1. The primary or immediate
2. The secondary or indirect

The primary or immediate effects may be comprehended under the term shock:

The secondary or indirect under the term reaction.

The shock.

The chief effects of the application of cold water to the body are diminished vital activity, the production of a sensation of cold, accompanied with diminution and contraction of the body, especially of the skin, being also a cold sensation on the fingers and toes. A very white, which before taking the bath
exactly fitted the fingers. Some clothes off, the backs
of the hair on the nape become elevated and more
marked, constituting the ejected hair as it is called.

The vascular system is also affected, particularly
the heart, action being manifestly diminished
in force.

The peculiar states of the body, the nervous system
may not be able to withstand the shock; so when
the body is by hurried with fatigue from long
continued muscular exertion, or weakened
due to cold perspiration, time by time, the bath has
been fatal. When the cold bath is used
for the purpose of producing the shock, the
water should be very cold, and there be applied
in a very sudden manner; the effect may
be produced, either by a person standing in front
of cold water, or the patient may be immersed
quickly in the water, and then pulled out as
naturally as possible.

It has been employed in this manner with great
success, in Europe, United States and
Great Britain, though much less has been done when
employing this remedy in cases when there
There is danger from reaction. 

The cold water, however, arrests the refrigeration which results from sudden immersion in the cold bath. This refrigeratory action then must accompany with the any general Bowden shock, and has been found very useful in disease, where the animal temperature is elevated above the ordinary degree of health; as in febrile diseases - typhus - contumacious fevers.

When employed in the form of cold affusion, it should be done with a sponge, the water not being exactly cold, but rather just a little below the temperature of the skin, and being gradually reduced to the last temperature of the bath. Reaction, or secondary effects of the bath.

After the nervous shock is over, the situation of cold is succeeded by an agreeable feeling or glow of warmth over the whole body, the body also assuming its natural stage and tenderness. The degree of reaction is governed by peculiar circumstances, it is generally proportionate to degree of the cold of the bath, and to the constitution and strength of the individual.
Here, the have a natural warmth of surface
have generally a greater degree of reaction produced.
Taking exercise in the bath will also tend to bring on a greater degree of reaction; if it be
a sea bath. For instance, swimming will
increase its tonic effect.

Bathting is the best form of hot bath
and is always preferable to the smaller hot
water bath. It is generally practiced during
the summer months, but a person may
continue bathing during all the autumn months,
and even during the winter.

The best time of day for bathing is about
midday, or two or three hours after breakfast
and it is better to take brisk exercise during
that period. By those of vigorous habits
and strong constitution, the sea baths may be
taken immediately on rising from bed, in
the morning before breakfast. It thence
be taken before the surface has had time to cool.
In many cases it has been found rather better
than beneficial when taken to early, in consequence
of the surface having lost the license of ...
Persons and those of strong constitution may even prolong their stay to 20 or 30 minutes provided they exercise themselves in the water by swimming or some other exercise. Swimming has been found to increase the tonic effect of bathing; the exercise is both violent and yet all the muscles of the body are brought into action.

Immediately after coming out of the bath, the individual should dry himself well and quickly, with a good rough dry towel, putting on dry clothes and if possible, taking some moderate exercise after having dozed.

Varieties of Cold Bath.
1. The Shower Bath. This is a variety of cold bath where the water is made to fall through a normal or small aperture, and at a sufficient height above the body. It is very nasty for the nerves, but for the duration lasts longer than some other methods. The sudden contact of the water may be prolonged or increased and modified at pleasure, and pour the head and breast, being first brought into contact.
with the water, there is less danger here, than in the common cold bath.

II. Formation.

This is another mode of applying the cold bath; its effects are much the same as those produced by the shower bath, or common cold bath. The effects vary according to the temperature of the water, and the height from which the liquid is poured, and the sudden shock given to the system by the mechanical impulse of the water. The effects are not very long, and reaction quickly follows its application. The usual manner in which it is applied is to make the patient stand in a tub or other vessel, and the water or attendants standing on a chair pour the water over the whole body. When it is applied to the head, it is generally poured from a large vessel and at a height of two or three feet.

Then the patient is made to sit, and the latter out of bed. For the first time, he should be made to incline his head over the side of the bed. After the operation is over, he should be wiped perfectly dry, and placed in warm clothes.
The application of cold affusion with water of different strength may be varied according to circumstances. From a quarter of a minute to two or three minutes, stretched longer to fifteen or twenty minutes.

III. The Doache

This is a partial cold bath where a stream of water is made to fall on some part of the body. It is also powerful to comedy. Its long continued over a part (especially if the water be warm) creates great pain. Its action seems to depend partly on the mechanical power of the water. It is said that a strong water 10 feet in height made to fall forcibly directly on the top of the head, creates a much pain as fomentation in cases to relieve the Cephalic, which one try it, by a thread of its application.

It is a very effective refrigerant, which owes its power to the mechanical force of the stream of water on the Capillaries, and the impaction of the particles of the water. It is a remedy very much employed in affections of the brain, chronic diseases of the joints, etc.

There are various other partial cold baths or hip baths, foot baths, etc. Former is very
useful for young females affected with profound

The cold bath, 70° 575°, and the temperate
bath, 73° 675°. These baths are also very
similar in their effects to the cold bath,
being less powerful in their action however,
and used more for the purpose of cleansings
and clearance, than as therapeutic agents.

They may however be useful in those patients
whom one suspects of not being able to sustain
the action of the true cold bath.

Diseases in which the cold bath is useful.
The disease and other conditions in which
the application of the cold bath is found useful
are very numerous, and require to be particularly
attended to.

The cold bath is one of the most powerful and useful
measures in the treatment of diseases and consequently
its application requires the utmost patience, care
and management, and must always be given
with great care.

It has been found to be quite beneficial in cases
of disease of the liver, especially in jaundice
as a consequence of the determination of blood to the
Universal organs being increased by the application of cold. There are naturally a break in circulation and at the same time both power of respiration will very seldom fail any agreeable or salutary effects from the employment. Persons of an apoplectic habit of body, and who have been but little accustomed to the cold, should avoid it as much as they can, from the danger of diminution of blood to the head. It should not be administered as the rule of persons affected with asthmatic complexion, or in those who are much predisposed of taking transpiration from the outer.

The cold bath has been found to be a very useful remedy as a tonic in Chronic Chronic diseases, in brachial from tetanus, scabies attacks. It is also found to be of great service in cases of debility, when there is great debility and fatigue from the slightest exertion, and certain chronic affections in women of the mind and the mind, both of body and mind.

Cold leachers is one of the best remedies to continue intermittent fevers. It is necessary that it may be used, whereas the heat of the body...
in satisfied above the natural standard, where there is the center of breathing present, and where there is no general perspiration. If there be, which neither during the cold nor during the sweating stage, nor even in the hot stage.

If used during the cold stage, an interruption of inspiration, a flustered breath, and quick pulse. Then the application is succeeded by a free and general perspiration, and the patient falls into a comfortable sleep, in which he may be seen the effects will be salutary.

In cold natron and the other inflammatory, etc. at facia has been employed with advantage as before and after the complication.

Now as recommended by Starre, the patient will be much benefited either by cold effusion over the whole body, or by simply evening the head with cold water, especially if there is excessive head secretion. The cold effusion over the whole body is now generally taken the cold evening, or account of its being too powerful a remedy, its application being sometimes followed by a fatal termination.
The cold changing acts only about the head, and diminishes the frequency of the pulse, allaying the thirst, and producing a sedative effect, both for face and perspiration.

It is rich much employed in fevers, however, on account of its tendency to produce pulmonary inflammation in that disease.

Salt water is originally useful in feverous affection, but often leads to much detention in regard to its application. For in these patient cases where the heart is generally weak, the noxious pus may on the person's system may prove too strong for them, if it is not used with discrimination.

In persons of great ability and resolution, and who have been with habits of living in low damp situations, sea bathing will be found to be of the greatest service, especially if not be accompanied by the body and in health, loose thin. Then the cold sea baths, and good clarifying air are combined. The beneficial results in these cases, will with be clearly and generally, permanent. It is also of some effect in case of Cholico decharge, as,
in chronic rheumatism, the cold bath is a
most useful remedy. It is also of service
in the bilious type of fever, when the patient
is given chlorate of potash.

It has also been found beneficial in the case
ofrickety children, as also in rheumatism
being applied between the intervals of attacks.
As a preventative it has been used in various
diseases, especially in children, it strengthens the whole system, and renders the body less subject to suffer from sudden variations in temperature.

These poisons and infections, however, can be introduced into the body, and it is often found that cold bathing is of great service as, for instance, during the prevalence of an epidemic, these ideas may be used as a prophylactic. The poison being suspected to be dormant in the system, bathing the more favourably susceptible parts call it into play. It is then
may be stated, when the White System can be more capable of warding off any attack.

Cold bathing has been used in various cases, disorders as tetanus, epilepsy, and in infantile convulsions. It has also been employed in rheumatism, but the effects produced were not salutary.

It has been used also in various other cases. A disorder which the cold requires particular attention.
Of the Human Body.

General actions on the body.

The physiological actions of heat on the body are of two kinds - primary and secondary. 1 Primary. The primary change is dilatation and relaxation. 2 Secondary, are depression and diminution of vital activity. When the human body is subjected to an elevated temperature, its chief effects are principally noticed in the circulatory system. In fever, that the superficial vessels enlarge, the pulse becomes quicker and full,there is an increase of animal heat, and the skin becomes red and elevated. Shortly afterwards respiration becomes quick and the together with alternation of blood to the surface, produce a corresponding diminution of activity in some of the internal secreting organs. For, as all secretions attract certain ingredients contained in the blood, and produce a change in its composition, the local action whatever can be altered in its quantity or quality without the balance being

Excited between them becoming disturbed
and consequently the increase of one ventra
grease due to elevation in another (Shiller)
This is called the "antagonism" of actions
In the manner the balance of the continuous
action diminishes frequently secretion
from the kidneys and mucous surfaces.
The exhaustion, languor and diminished
muscular activity which is caused by
shriveling heat applied to the surface is a consequence of the relaxation of the tissues.
The first effect produced on the nervous
system by the application of heat is
excitation of nervous energy, flexibility
is increased, muscular activity is promoted
and there is clearness of the intellect.
The secondary effect is depression of
the function of nervous power, incapability
of muscular and mental exertion; there
is also languor and lethargy with a
tendency to sleep. These effects are
very well marked in the operation of heat
in the form of warm bath.
Its action on the nervous system varies
according to the amount of heat applied. When the temperature is not too high, it gratifies and loosens the nervous system; if the temperature is increased, the effect on the nervous system is still appreciable. But in a short time, if its application be continued, the contrary opposite effect will be produced—causing instead of loosening, the warm bath increases the temperature of the body, raising (if the temperature of the bath be kept above the head of the body) the whole of the superficial parts, above the natural standard. It also promotes perspiration from the skin, relaxing and softening the parts to which it is applied. This relaxation which is quickly produced on external parts, soon extends to the internal and seems to depend in a considerable degree on the mechanical effect of the water, as well as the temperature. The warm bath renders the pulse fuller and quicker and this effect varies according to the length of stay in the bath, or the temperature of the water.
It has also the power of equalizing the circulation of the blood in the body. When the temperature is moderate, consequently by the determination of blood to the superficial vessels, it may relieve local internal congections.

Moreover, the temperature be very high, the treatment produced is generally very great, and the heart's action is very much increased, the blood being thrown with force into all the capillaries of the system, and the internal congections parts both relaxed.

The temperature of the fluids of the body is seldom elevated more than a degree or two, by the effects of a bath of sweating and even of the elevation from 16°, the circulating fluids would not exceed the bath of an additional ounce of blood or water.

Dr. Parke made various experiments on the effects of warm bathing at various temperatures. He found that the effect of a warm bath of 95° was the following:

The pulse affected was slightly quickened.
In a few afterwards became natural.
The respiration which was at first a little more rapid than usual, soon became free, and the temperature of the body was increased but slightly.
In a bath of 98° the pulse increased more rapidly and did not subside to quicken.
The arms was not increased, and afterwards the pulse became slower than before he entered the bath.
At 100° the pulse became increased from 60 to 70. respiration was affected.
There was a faint sweating, and the face became red and flushed.
At 102° the pulse increased very rapidly in a short time. There was a faint perspiration, the temperature of the body was also raised, the vessels drew turgid, especially those of the head; after half an hours stay in the bath giddiness appeared.
At 104° 105°. These effects were more apparent and also came Rapid in their action, after a protracted stay in the bath, faintness came on.
From these observations we find, that the warm bath above 102° increases the flow of the blood, especially towards the head, and great care must be taken in its administration when at or near this temperature. Below 102° its stimulating effects are not great, and consequently not like to much pleased.

The warm bath increases the volume of superficial parts, for a long on the finger which before taking the bath fell too, now feels tight. This increase in the superficial parts, is chiefly caused by increased quantity of blood, and also from the dilatation of the vessels produced by increase of temperature.

The warm bath properly so called should have a temperature of from 93° to 98°, but of course this much be regulated by certain circumstances and peculiarities: for the same degree of temperature in one case, may produce very different effects on another. Peculiarities of constitution and particular forms of disease, therefore, much be taken
Into consideration in the administration of the warm bath.

A temperature between 94° and 97° will in general suit most individuals.

The temperature of the bath should always be kept steadily up during the time of immersion; for if it be allowed to fall below or to become raised above the stated temperature, the effects which are gained may be entirely changed in their character.

The best time for taking the warm bath is generally between breakfast and dinner.

Mr. Bath and various other General Guppies may bath early in the morning.

The time however cannot be stated precisely except in certain acute affections, where it should be taken whenever it is required.

The warm bath is taken by many individuals just as it suits their own convenience.

The time of stay in the bath must also be regulated according to circumstances, or else the effects the bath is to produce from 20 to 30 minutes, stay is about the medium 10 or 15 minutes being the shortest.
The effects produced vary also according to the length of stay in the bath. Various indications to this end. Where there is great vascular spasm, and tendency to hemorrhage and telithrosis, it will certainly be useful. Also in those individuals where there is great alacrity and phlegm, especially if the impure urine is passed. Where there is a great tendency to pot belly swelling, it had better be avoided.

In case of aneurism, and dilatation of the heart, it should not be employed. Nor where there is great variability of a curvus spine, or a break in the state of the constitution as in cholera patients.

Some authors (when unprepared) with curative substance, are found to be very useful in the treatment of certain forms of diabetes. Baths of the spine, when incorporated with certain (mineral) substances, are necessary. Salt in solution are found to be of little use in cases of related subjects. It is found that they have a more tonic effect on the system than the common baths of these waters.
It is said that patients are helped to take cold after their application.
The warm water bath is found commonly useful in various cases, being more stimulating than the common water bath, and having a more powerful astringent effect on the internal parts.
The warm bath at the Mineral Spring of Bath, Bristol, Burton, Harrogate, Cheltenham, and in the country, and other Mineral Springs on the Continent, have peculiar effects different from those found in the water of the common bath. The same hydrographic effects of the warm bath combine here with the aperient as well as the bloodthirsty action of their spirit and gaseous impregnations. Alkaline warm baths are pronounced especially in cutaneous affections, on account of their stimulant virtues and cleansing influence. Saline warm baths seem to be useful also in the same manner.
Sulphurous warm baths seem to work some specific influence over diseases of the skin. With alkaline and sulphurous warm baths, and by
abstention, the former being useful in correcting the latter with those, the other in curing cutaneous diseases.

Medical uses of warm baths.
The warm bath is a powerful remedial agent and plays very important parts.

The general effects which it produces have already been described. It is employed as an excitant of the nervous and vascular systems, it also possesses the power of soothing the nervous system, it increases and accelerates the respiration and exhalations, acting as a deep stream of modu...
Lastly, it further precedes the warm bath. In certain acute inflammations, the warm bath has been found of immense advantage, especially in inflammations of the mucous membranes of the uterine or anus. It acts by equalizing the supply of blood and so that there is a tendency to check any inflammatory flow of blood to the uterine organs. In suppurative and the common bath may be used, or the warm water or warm fomentations to the bowels. There is a warm compress, which is the result of the inflammation and previous to its use by antiseptic means.

In the various forms of chronic or acute postpartum, the warm bath may be used with advantage. In amenorrhoea, the warm bath assists the action of the uterus. It should be used at the expected period. In amenorrhoea, a more severe inflammation generally follows the administration of the warm bath, as it has a tendency to produce a discharge of the menstrual fluid.

In all these cases the warm bath is the
Preserved and in the majority of cases, bleeding should be had recourse to before it is need. From baths, are very beneficial in these cases, where the object is to promote or correct the secretions or by evacuation. As in practice show it is found to be extremely beneficial to the patient himself, when combined with Enema, it tends to alter the very march state of the skin which generally accompanies this change.

It must be remembered that there is no benefit in removing the albumen, till the albumen assumes a healthy appearance. Treas have shown that when the functions of the liver are duly exercised, the great thirst in the albumen becomes stop in force, and there is a great diminution in the amount of wind discharged. It must be employed continuously for a time, as it may take a few weeks, before any permanent effect be produced, and until the skin becomes slightly freckled after taking the Ooz, or hare (together freely) the real amendment can take place (Dr. March). As all cutaneous affections of the skin character, these baths are found to be of great service; they clear the skin, cleanse it from impurities, and the
Make it more suitable for the application of ointments or they also produce chilblains and promote the action of certain medicines. Amongst others by termite caustic in use in the treatment of lepra, the pure bath has been found the most effect; the copper bath being preferred by some, and the socalled Salk Crater bath by others, the latter is adopted in the book, although an effective substitute both in the. Bathing should however only be used as a secondary remedy in those cases an acute inflammatory state has been laboured by. Acute cephalalgia remember, bath friction along with a tooth brush and suds headwash. Various spasmodic affection of a painful nature, as in chronic lepers to. The manner bath may be useful, it acts by relieving the rigidity and increasing which is present. In acute cases, it will be of little use. There are cases on account where it has proven fatal.

An ophthalmia of a spasmodic painful nature the Bubon bath will be found of the greatest service.
...to be, the warm bath may be used with good effect, especially when united with slight letting and opium.

In the passage of urinary calculi, its use is also found to be very favorable. In jets of the full stone, immersion in the bath and warm fomentations are recommended, as they are supposed to have some effect in diminishing the force of the muscular contractions whereby facilitating the fracture of the stone. The immersion should be continued till the stone is taken, and should be often repeated till the symptoms are abated. The same applies to the passage of urinary calculi.

In various neuralgic affections, the warm bath may be recommended, as in phthisis, pulmonary pyrexia, and others in some cases of paralysis, especially as hemiplegia. They cannot be used too frequently or too long, as they are also to some relaxation; their effect may be increased by any substance which will increase the diaphoretic properties of the water, as the addition of salt, for instance.
From the above it will therefore appear most
useful in such paralytic cases.
The warm bath is of great benefit, in those
complaints depending on irregular or diminu-
tion action of the intestinal canal; as the
state of the bowels produced by warm bathing
favours the healthy action of the stomach
and intestines.

Besides it is found the most valuable agent
in the removal of colic, especially when the
patient has been taken cold in the
exposure. It favours the discharge of various
or chronic motions, matters from the skin, which
it is always advisable should be put to rest as soon
as possible. In chronic rhumatism also
when continued with active exercise, it is
a powerful remedy. The warm bath may
be used in various chronic and affections,
especially where cutaneous eruptions have
been expelled or where they are accompanied
by a degree of fever or irritation. As a
principle, the warm bath may be used
in individuals suspect to chills.

In infantile convulsions especially, if found
useful to the relief, it is generally the first application.
employed, and at will of his own he joined to expel the paroxysm immediately. The local and homoeopathic remedies are generally recommended, and then the more generally beneficial and yet locally injurious should be employed before the administration of the latter. The Cerebro thyphus has been employed in various febrile diseases, where there is a dry stool. In these diseases homoeopathic remedies are not generally the best, and the homoeopathic mode of treatment into practice. The homoeopath seems to think that cold affusion is more generally beneficial than hot affusion, and the latter may the more in all these cases. When the former has been employed, and it will generally be more agreeable to the patient in a fever or many cases. The temperature of the latter affusion should be from 77° to 97°. It has been employed long generally in those febrile affections, where the homoeopath action are usually expected.
depending rather upon the stimulus of pure natural heat than on Contagious exudation, or local inflammation. It may therefore be useful in those febrile affections of children, it produces a diminution of heat, diminishes pulse, and tendency to thirst. Its effects are not however so permanent as those of the cold applications.

This affusion is also useful in the heat of an inflamation, arresting the violence of the chills by moderating the heat and producing perspiration.

The tepid bath will be found useful in various chronic affections as rheuten, also in the profound agitation accompanied with deplorings, delirium, agitation, and heat of surface. It will also be suitable in various neuroses and chills. When the cold bath is too powerful for its action.

The application of the warm bath to feet is in pedilurias or fomentations of the feet. It often produces the most powerful effects in quieting irritation in feet, and bringing on a sound refreshing sleep.
Sudan bath 85° to 95°

This bath is chiefly idea for the purpose of cleanliness. Its effects are very remarkable. If these produced by the warm bath, only act as powerful and lasting.

The principal effects are due to the softening of skin. If the stay in the bath be prolonged for any length of time, it soon produces a leucon of color or chilliness, and in fact, the reaction of cold or warmth produced, will in a great measure depend on the temperature of water at which the body was before the bath was taken.

If it be of a temperature equal to that of the body, the respiration and pulse will remain unchanged: if it is lower, the former will be checked and the latter accelerated. More cold, if above the temperature of the body, both of these will be accelerated.

The feeling of chilliness, which is produced after tattling the bath, room parties of, and an agreeable warmth.
Medical uses of the tepid bath
The same already awarded some of its
use. When speaking of tepid affusion.
It may be used in all cases. Where,
dying to some peculiar adaptation
as the individual, the warm bath from
too powerful in its effects.
It is used in various diseases of the skin,
both in females and males, especially those
of a chronic nature. In various
febrile diseases where there is great heat.
Then it will be found useful.
Sometimes it will be found to be benefi-
cial in cases of chronic rheumatism.
and in some spasmodic affections,
also in some cases of irritability of the
nervous system.

Hot Bath 95° to 102°.
This bath is a much powerful stimulant
both of the nervous and vascular systems.
The phenomena are, an acceleration
of the pulse, beating it at the same.
true, fuller and stronger. It quickens the circulation, gives rise to a feeling of restlessness within the cranial. As for the great use of the bath, which is often succeeded by a fit from flow of perspiration. That is a sudden expansion of the liquids of the body also.

Then the hot bath is moderately used, it is generally succeeded by languor, feeling of prostration, inability for the physical or mental employment, or a tendency to sleep, and also debility. Then the employment hastily and moderately is continued for too long a time, it is apt to produce cerebral symptoms then apoplexy.

Medical uses of hot bath.
It is very seldom employed as a means of cleansing or for luxery. On account of its effects being here too too strong and disagreeable and therefore following the bitter bath. It is therefore chiefly used as a medicine.
agent. And there are cases, however, when it is specially found to be of great advantage, as in those where the temperature of the body is low and when the patient is unable to raise the thermometer of heat above that of the blood heat. In many cases of palpitation therefore, it may be found to be extremely beneficial. In chronic inflammation also and in various other chronic diseases, it also operates as a powerful anti-spasmodic, and on this account may be employed with benefit in the passing of gall stones, in lithotripsy, in gout. It is employed by surgeons on account of its cutting and dissolving properties, in the reduction of estrangulated hernia.

Thus, it is a useful article, its employment requires great caution, since the same precaution must be taken in administering this bath as to the ordinary common Xiao Mao Bath.
The Vapour Bath.
In this country, as in other parts of the world, the vapour bath is much used.
It consists of a small room, lined with soft wood, surrounded by a sort of cloth or other soft material, to allow of a space for about two feet to hold the body of the patient, seated on a stool or chair.

The vapour is admitted at the lower part of the apparatus, by means of a tube connected with a vessel of boiling water.

The common method of using the bath is that which allows the patient to breathe the air or the vapour at pleasure, by inclining or inclining the head towards an opening in the side of the vessel.

The degree of heat which can be borne by the living body...
Paris very much according to the nature of the heating medium, by which the heat is conveyed, on the density or capacity for later, on the evaporation of the particle, &c. &c. The relative power of any air is as other than that of water, or this is much less than air in a certain fixed power, and the latter in turn is as to the heated water, as in the common room bath.

In the experiments of Mr. Gooch, Mr. E. Todd and Mr. Bynon, when they are given themselves to a heat of nearly 260°F for a few minutes and without any inconvenience whatever. Neither helium nor hydrogen ever produced in any air a heated room. The novice air a temperature of that height would soon intolerable, as is due to a supply of the moisture,
The first part of this book is about the reason why the body can resist such a strong heat in any air. The body is not the effects caused due to the evaporation of the cutaneous + pulmonary transpiration. The body of animals allowing the fluid they contain, to be evaporated through them, their hair becoming always tanned, and a confined transpiration taking place, and costing them.

Mr. Delaroche to prove this, placed animals in a hot atmosphere being much laboured with moisture, so that the evaporation could take place from their bodies. He found that these animals could not support a much greater heat than their own without perishing and they became redhot, because they had no longer the power of costing themselves. So that there is no doubt, that the cutaneous + pulmonary evaporation are the cause which heats the skin + accounts to cost...
in a strong heat.

The heating power of the vapour bath is cruel to cases of the head
as inclusion, as fatal the patient may
receive the vapour into his lungs;
for the extent of surface through
the vapour is absorbed, is increased.
There is also a direct part to the cooling
effects of pulmonary evaporation.

Medical cases.

The vapour bath is a powerful
stimulant and sudorific, as often
relieves the cutaneous type, improves
the superficial vessels. Accelerate the
circulation of the blood. Affects the
frequency of the pulse. Preparation
for allowing sweating. Preparation.
The vapour bath gives the effects
to the combination of heat and
moisture, originating from the brain.

Air bath. By being a forceful, dilatant
vaporific. In the vapour bath the
thin becomes quickly moist, by the
brain and heart it is longer of acting on.
In the science of communicating heat, dr. is inferior to the warm bath, though in most of its effects the vapour bath differs very little from the warm bath. The vapour bath seems to be a more promising derivative than the warm bath, on account of the bluing of a clearer opinion, and consequently causing a greater collection of fluids in the cutaneous superficial pustules. The vapour bath may be employed when the patient cannot bear the vapours of the warm water bath, or when from some peculiar disease, the bath would agree or not agree. It may be employed in these affections where the blood has ascended from the superficial parts. If there is congestion of the internal organs, or during the cold stage of certain malignant fevers, also in ulcerative ulceration. It is especially useful in those diseases succeeded by inflaming organs, boils, etc.
in Pernicious Ataxia, Pneumoniæ, Expiratory &c. It is used chiefly in these cases, where the wish to produce the twin perspiration, as in Chronic Rheumatism, & often in Chronic Rheumatical, in Paralysis of old standing and in Chronic Arthritis. It is useful in Chronic Rheumatism, & notably of the joints, also in various acute and chronic pains, Calculous Causa, Swelling of Pains, &c. The vapour bath may be continued for one or two hours, according to the temperature and according to the effect one wish to produce.