

OSTEOPATHIC TREATMENT IN  
THE HYPNOTIC STATE;  
OR,  
SUGGESTION - MASSAGE:

THE CURE FOR INCURABLES

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**Most Wonderful Treatment of the Age.**

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BY  
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OF CHICAGO

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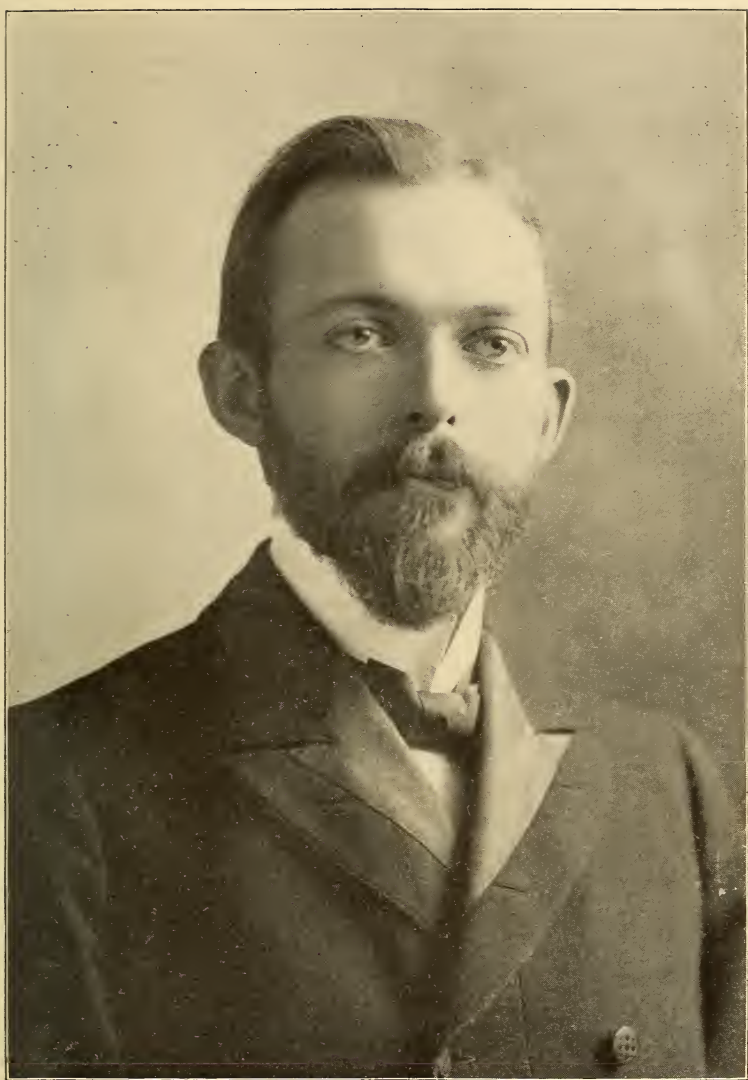
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*Thos Bassett Keyes*



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## OSTEOPATHY.

Osteopathy is the science of treating diseases by manipulating different parts of the body, particularly the nerves of the body; and the effects wished for, or those which the osteopath wishes to produce, are often accomplished by manipulating a part distant from the disease, depending for results upon the reflex or sympathetic correspondence which certain nerves have when manipulated, this action being transmitted to a different part of the body.

Osteo-pathy is said to come from two Greek words, "osteon" signifying bone and "pathos" pain. While osteopathy is a new name, it was largely practiced in ancient China and during the period from three to four thousand years before Christ it constituted the most valuable part of the whole system of the healing art. In the most ancient books of China it was understood that labor could be controlled as to pains by pressing on the pubes, just on each side of the clitoris. This fact I have known and practiced for many years, and I find that by pressure on these parts you may concentrate and make good strong and long expulsion pains of the uterus, and at the same time the os will be more readily dilated. By pressure over the second sacral foramen, just on the nerves as they emerge from their bony openings, you will cause the perineum and soft parts of the vagina to dilate, thus not only rendering labor less painful, but at the same time you may terminate a labor which would usually last twenty-four hours, in from two to four hours. In this way I have terminated labor which has lasted two and three days, and where I had been called to apply forceps as a consultant to some physician, and by knowing these manipulations have surprised the physician and his patient by a rapid delivery, due to concentrating the pains, and relaxing the parts by the above manipulations. In the same way, mind you, the afterbirth can be most readily expressed.

Many cases of dysentery, or blood flux, as it is sometimes

called, I have cured by knowing these ancient practices which have come from the land where the bubonic plague and dysenteries have been the bane of the nation, who understood the body better than sanitation and germs. Dysentery and bloody flux, which have resisted all forms of treatment, will readily yield to the following treatment: First lay the patient on his or her side, with the back toward you; place the finger and thumb on each side of the spinal foramina, commencing with the sacrum, and make deep pressure on the nerves as they emerge from their openings, and so on up the spinal column. With each pressure which you make the limb which is uppermost should be drawn backward with the other hand, or, better, have an assistant to aid you, and draw each limb backward alternately. In this way you will receive results as surprising as it is marvelous.

To be a good osteopath, "bone puller" and "kneader" one must have a good knowledge of anatomy, and before proceeding further it will be well to study carefully the joints and muscles, particularly the way the muscular fibers run, and for this purpose we have had the following special cuts made.





## MY EASY METHOD OF HYPNOTIZATION.

The method by which I generally proceed is as follows: If possible I first show the person whom I wish to hypnotize another person passing into the hypnotic state. This is an advantage, as it generally removes nervousness and calls forth the imitative faculty. The patient to be hypnotized is then seated upon a comfortable chair, either reclining or otherwise (sometimes it may be preferable that the chair have no arms, and on one side be placed close to the wall in order that we may aid an uncertain catalepsy of the arm by leaning it against the wall). I then explain to him that which I wish to bring about as to the cure of the sickness, and that he will soon get sleepy and go asleep. I speak quietly but confidently and assuringly. I then ask him to fix his gaze on the ends of my two fingers held in a forked-like position a little above the two eyes. At the same time I say that "you are getting sleepy, relax every muscle and make yourself just as easy and lax and limp as possible, so easy, etc. Tune your body to the air. Tune your body to my voice. You feel easy and comfortable; a drowsy feeling comes over you; your eyes are getting tired; you feel so sleepy, sleepy; you are feeling calm; you are at rest; sleep is coming; you are drowsy; your eyelids are heavy; you can hardly keep them open." In a few minutes the pupils contract and dilate, and by this I know that the fingers are getting indistinct, and I say, "The fingers grow indistinct, things look hazy; you are going to sleep quickly and easily; you will soon close your eyes and go fast to sleep." If the patient shows symptoms of catalepsy, then close the eyes with your fingers; but if not, then keep up the suggestions for a few minutes. "You can hardly keep your eyes open; your eyelids are so heavy that they are beginning to close; they have closed; sleep comes, sleep, etc." If we have a very hard subject and the eyes do not close, then gradually and very slowly lower the fingers and say, "Your eyelids are closing, so sleepy you can no longer keep them open; you close your eyes; you can only hear my voice;

your eyes are closed tight and you cannot open them ; you sleep, sleep deeper ; you have no desire to move ; you feel that rest has come ; you feel so easy that you cannot stir a muscle ; you cannot open your eyes : feeling so easy, etc." We then lift the arm, in difficult cases lean it against the wall, and say, "Your arm is fixed ; it cannot move ; it is stiff." It may remain in this position, showing the presence of catalepsy. I then touch the opposite hand and say that it is drawn hypnotically upward, that it follows my hand, that it is impossible to keep it down. The hand will generally follow, though it may be necessary to repeat the suggestions a number of times in order to obtain the desired effect. We keep on suggesting the symptoms of sleep, and we then take the arms and hands of the patient and revolve them one around the other, saying, "You cannot stop turning your arms and hands ; they must go on moving round and round, and you cannot stop them ; keep moving them." If the movements continue the third stage of hypnosis is reached. This is sufficiently deep for therapeutical effects generally.

But if I wish to put them in a deeper sleep I repeat the symptoms which have surprised his imagination, and I say, "Dream and imagine everything that I say to you ; you are sleeping deeper and deeper—so deep asleep ; dream and imagine everything which I say to you." Now I suggest their thoughts to some beautiful garden, to their home when a boy, and have them imagine the ones they used to play with and the things they used to do, etc., or we may suggest rapidly, things and objects of varied kind and character, and say, "Keep sleeping and dreaming and sleeping deeper, sleep, sleep, etc."

Having made the therapeutical suggestions, put the patient through a form of mental exercise, carry out general massage and dictate the physiological lines by which the disease will be cured, also as to the mental trend, diet, exercise, medicines, etc. We let the patient sleep a little, making suggestions that they will feel stronger and better, will sleep well nights, have a good appetite, etc. ; that they will feel cheerful, etc., not be nervous and that they will not have any headache, but that they will feel much better, etc.

Some subjects are very susceptible ; with others it may require a few sittings. On the other hand, as Forel has mentioned, and as Bernheim has called special attention to, there are those vain individuals who are afterward ashamed to have been hypno-

tized, and who maintain that they have been simulating, although in reality they have been well hypnotized.

If the patient has only reached a light degree of sleep, I say that "you have been influenced, and will sleep better next time." I also repeat the therapeutical effects which I wish to obtain.

In awakening the hypnotized subject, the older method, before it was so well known that suggestion played such an important part in hypnotism, consisted in some excitement, and various methods were practiced, such as breathing on the eyes, or eye corner, or on the forehead, the wind from a pair of bellows was sometimes substituted, or a few drops of water were sprinkled on the face. Snapping the finger was another popular means.

In cases of hysterical patients, pressure was applied in the region of the ovarium in the female, and in the male its corresponding part, the testicles. The existence of superficial zones has also been shown in many hysterical subjects, which may be excited in order to awaken them. These means are now out of place.

Never handle a patient roughly. Inexperienced persons have produced convulsions in patients by getting excited and flurried themselves, and using violent means to awaken their subjects.

Some patients will awaken themselves at the exact expiration of a period of time suggested by the operator. It does no harm to leave a person asleep, Bernheim allowed a patient to sleep eighteen hours. Generally, however, the patient will awaken naturally in a few minutes, as from an ordinary sleep.

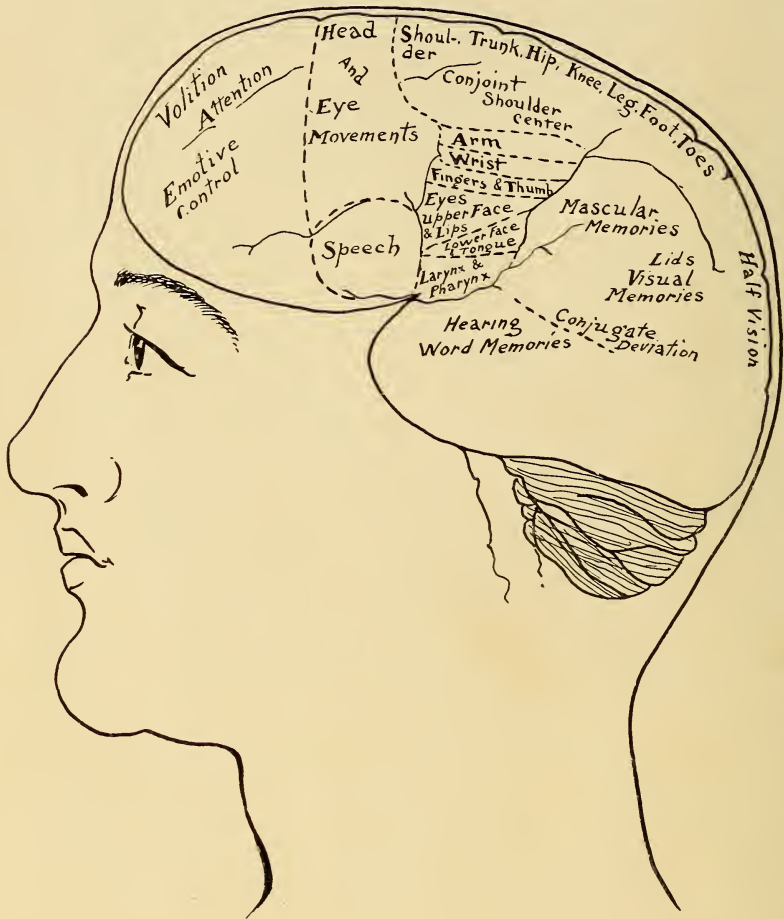
Before awakening the patient he should always be prepared by a few suggestions like these: "When you awaken you will have no unnatural feelings about your body, no headache, but you will feel so rested and strong, etc."

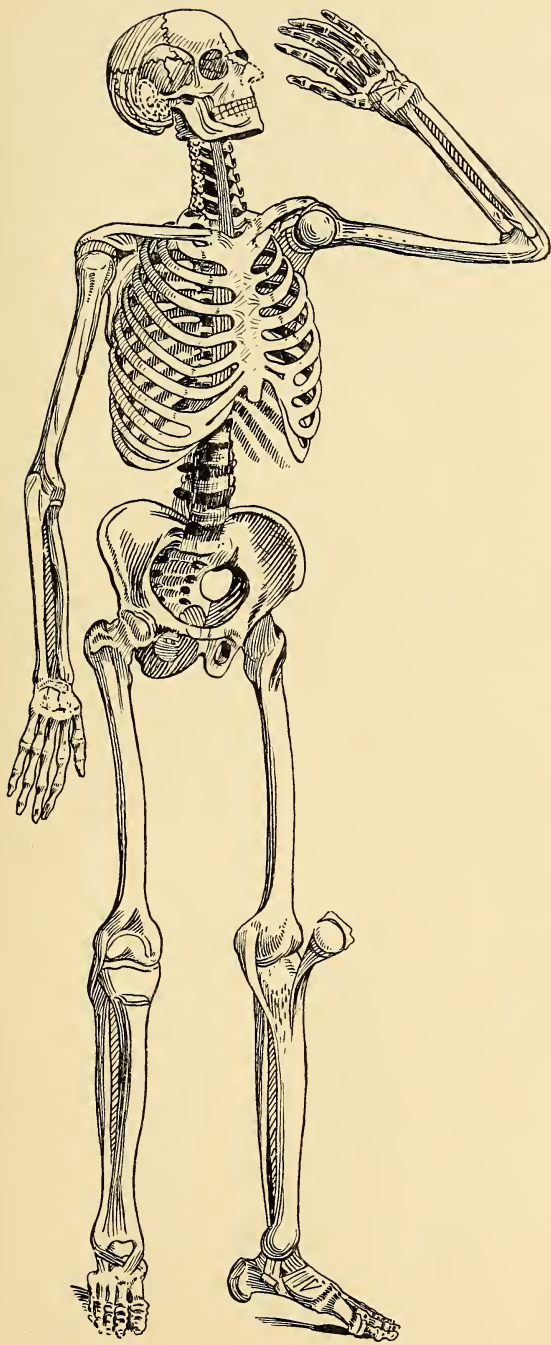
In order to awaken a patient it is always enough, and should be the only means used, to say, "I am going to wake you up now; you will wake up, slow and easy, slow and easy; you will wake up when I count ten; one, wake up; two, wake up, etc." When we have reached five, some of the principal therapeutic suggestions may be repeated; also to have the patient awaken cheerful, etc., and continue, "six, wake up, slow and easy, etc."

Patients invariably wake up when the number set is reached; if they do not, simply repeat in an easy manner that they are awakening up slowly, etc.

I have been called a number of times to awaken subjects of

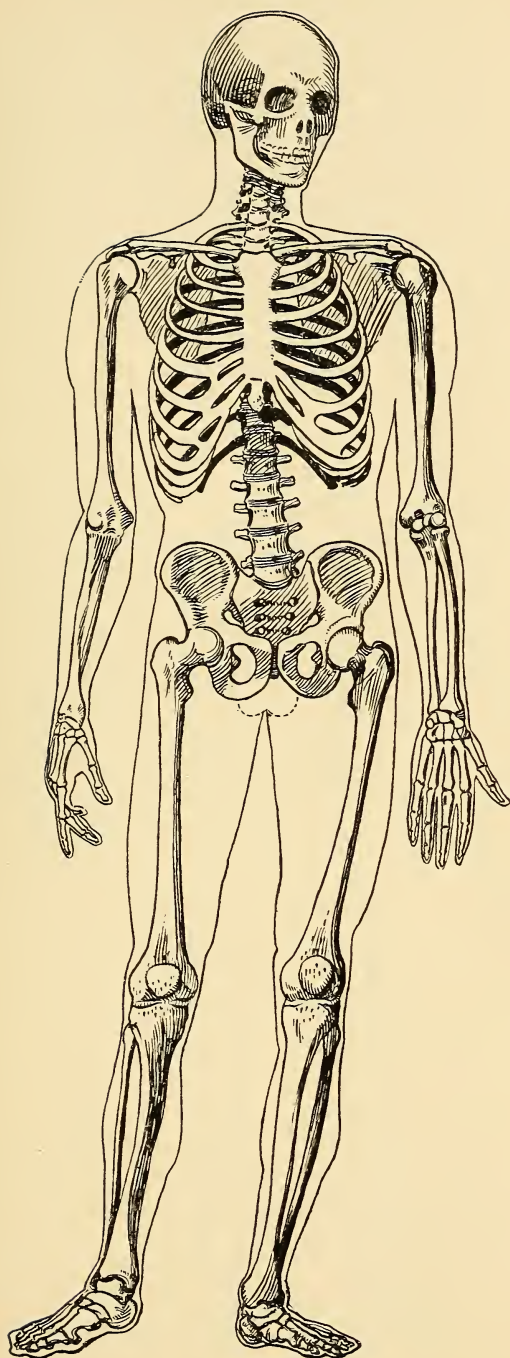
amateurs and have never failed to awaken patients by repeating the above suggestions; neither has anyone who has had experience in the treatment by suggestion.





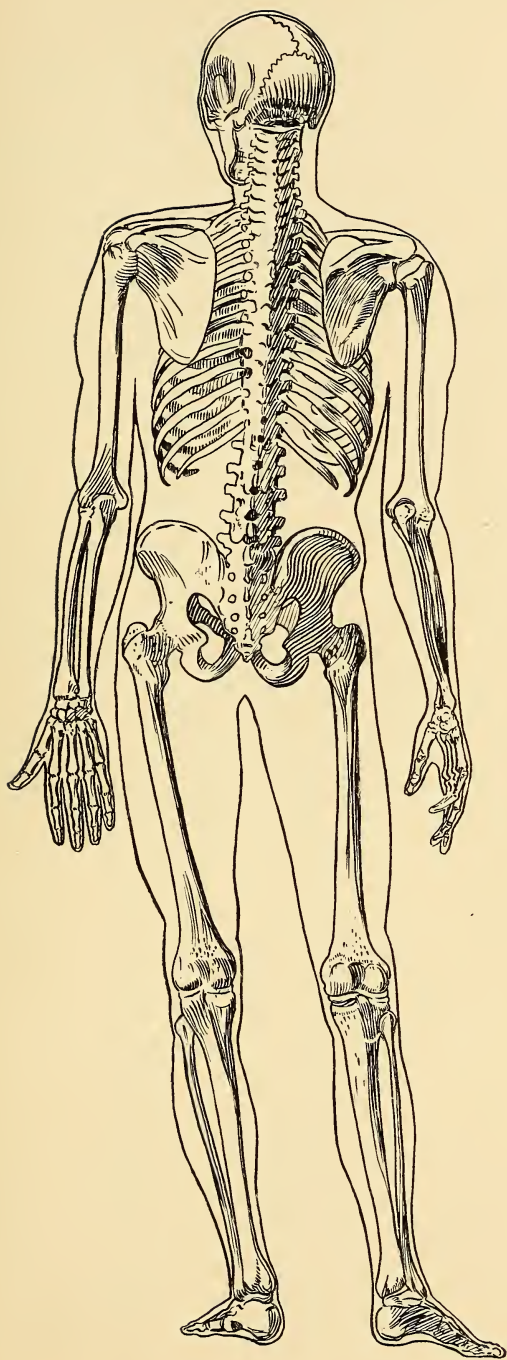




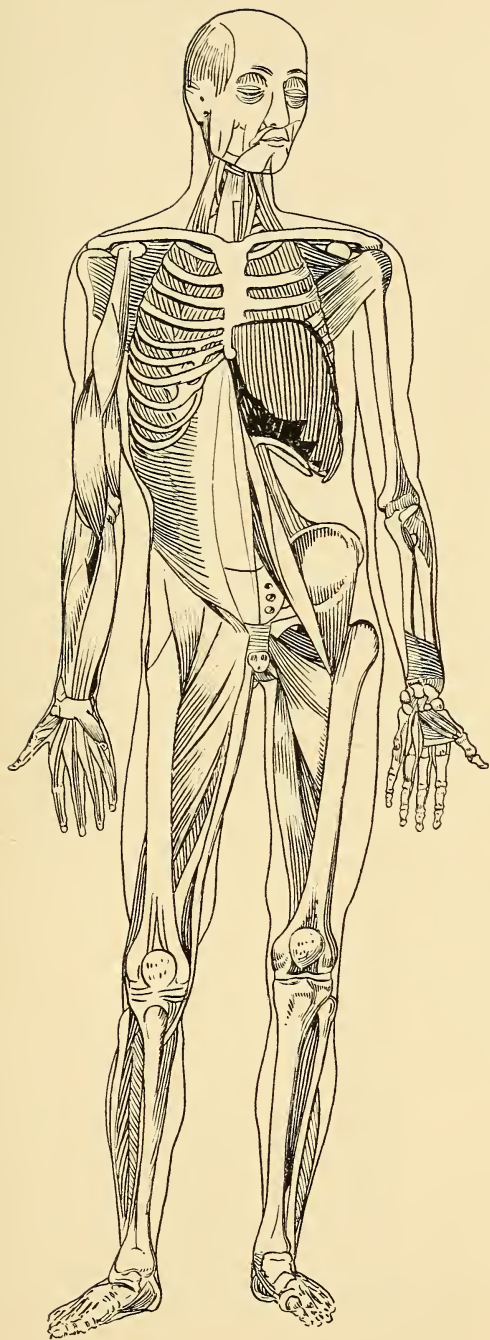




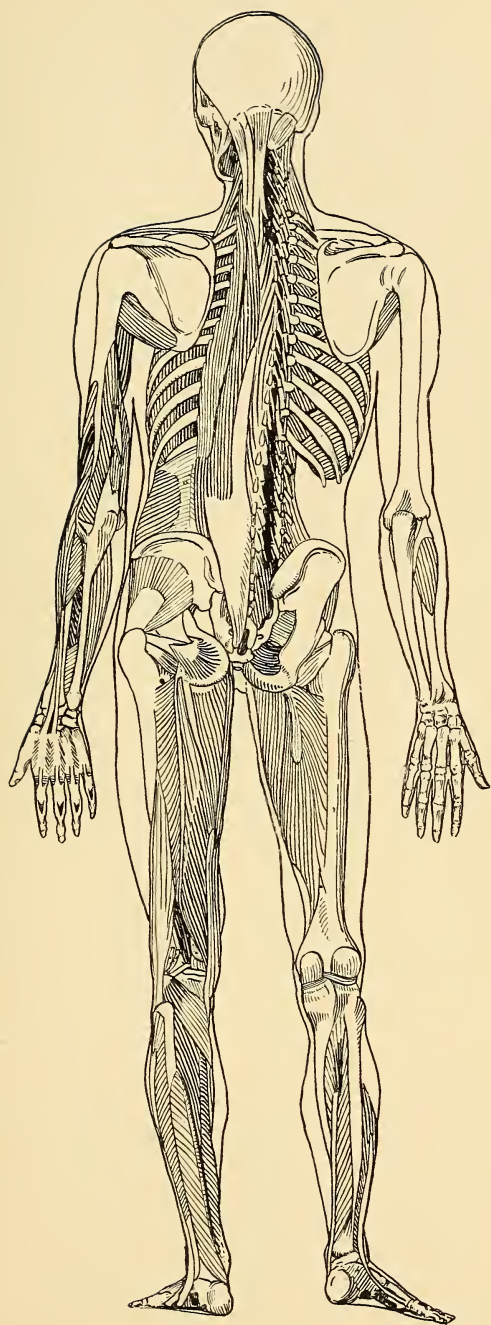




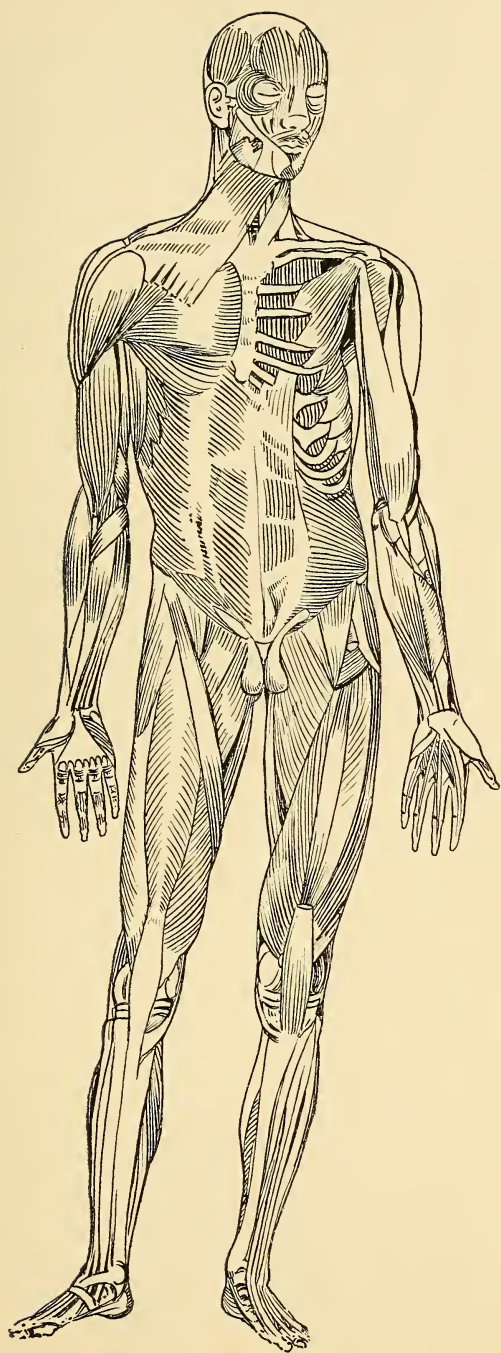






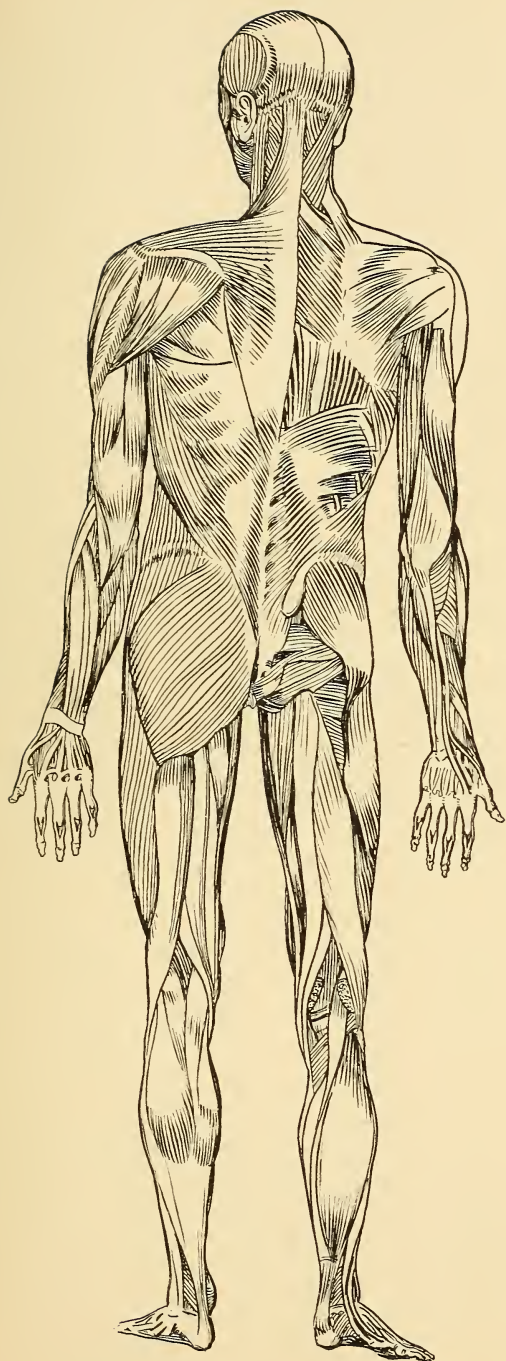




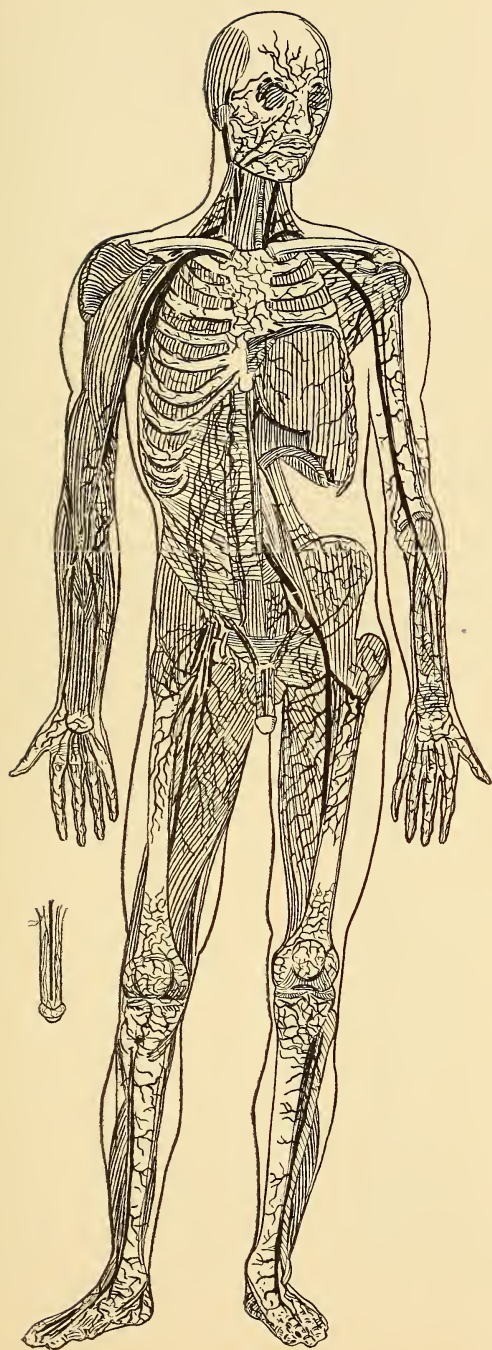




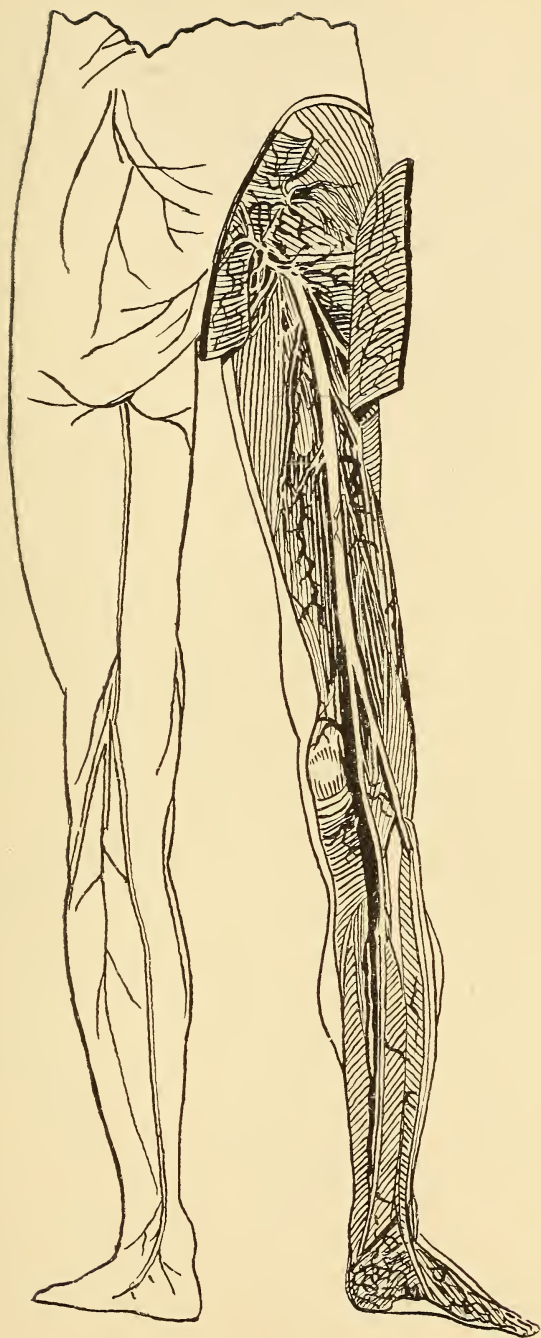








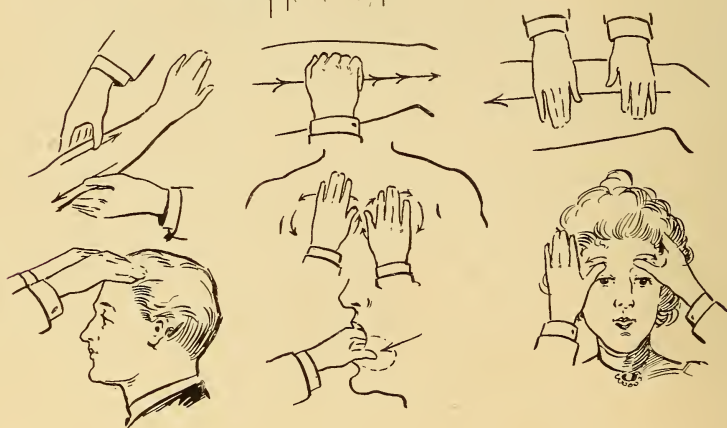
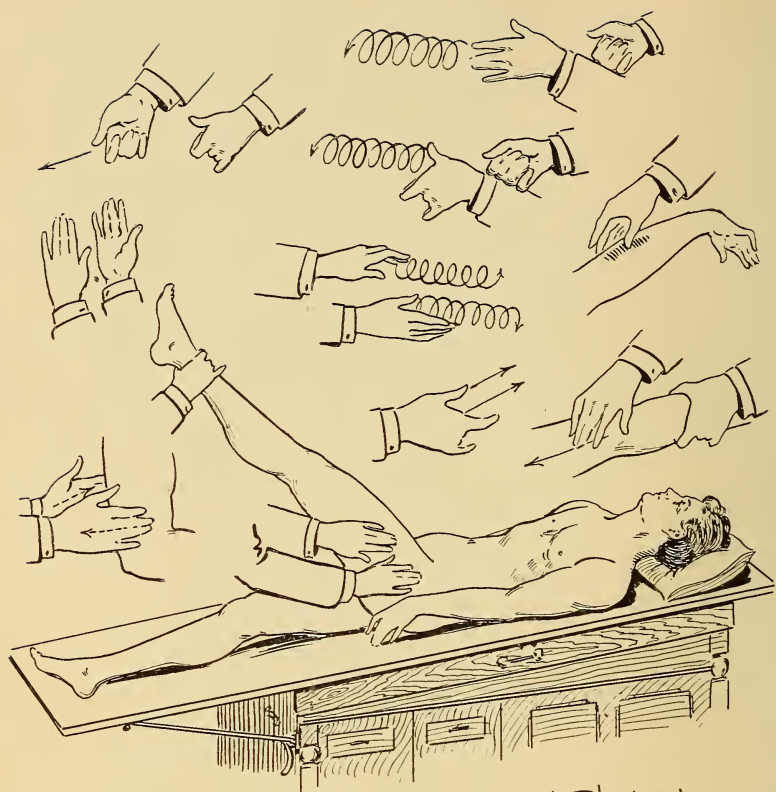














# SUGGESTION—MASSAGE.

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## The Cure for Incurables.

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BY PROFESSOR THOS. BASSETT KEYES, M. D., LL. D.

Much has been written on suggestive hypnotism, but in nearly every instance there seems to be a lack of practical therapeutical application. It is by combining with the suggestion, massage and medico-gymnastics that we receive the best results. This article is intended to give the medical profession a few practical points in the treatment by "Suggestion—Massage."

Among the oldest of Chinese writings (over 3000 years B. C.), is the Cong-Fow of Tao-Sse, which is a treatise on the curing of disease by putting the patient into a hypnotic condition and then to employ rubbing manipulation and exercise of the body. It is filled with illustrations of the different conditions, movements and attitudes. The disciples of Cong-Fow also entered into very lengthy details to show the sympathetic correspondence of the different parts of the human body and the action and reaction (auto-massage), of the different organs of the body, as to secretion, digestion, etc. They regarded the Cong-Fow as a true exercise of religion which, by curing the body of its infirmities, liberates the soul from the servitude of the senses and gives it power to accomplish its wishes on earth and of freely elevating itself to the perfection and perpetuity of its spiritual nature in the Tao, the realm of the great creative power.

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\*A Lecture.

These, or like opinions and practices, still prevail in China and among the inhabitants of India. Still, no detailed account in modern times has been written on "Suggestion—Massage."

(Keyes. *Suggestive Hypnotism, with electrical massage in the treatment of infantile paralysis, neurasthenia, rheumatism and other affections. Memphis Medical Monthly, Dec., 1896.*)

On the history of massage or suggestion applied together we will not further dwell, except to say that among classical nations, method, aim and theory has not yet existed. Separately, massage and hypnotism are daily becoming more favorably received due to the large number of cures.

(Keyes. *History of Hypnotism, Vol. I, No. 1, Journal Amer. Psych. Med. and Surg. Soc., 1897.*)

#### PHYSIOLOGY.

The body is made up of the surrounding elements. Its vital principle (Keyes' Life and Psychology), depends upon the life (electricity) generated from the food which we eat, the liquids which we drink and principally from the atmospheric air, which contains more electricity than any other substance known, save iron, cobalt and nickel. Through the sympathetic nervous system this force is stored, harmonized and utilized in carrying out the functions of the body.

(Keyes. *The Sympathetic Ganglionic Nervous System and its relation to the Body and Disease.*)

All parts of the body are agents of this electrical machine, from the blood to every secretion, and it maintains in due degree the physical conditions. When this system becomes exhausted, germs of disease find an easy access to the body; but when this system is active the body remains healthy. The energy of the sympathetic ganglionic system may be increased or diminished by the proper suggestions, and by suggestion we may direct this energy to a diseased part. A person in the proper suggestive state will feel this force generating when the proper suggestions are made to increase ganglionic activity.

The physiological effect of suggestion and massage upon the blood is quite remarkable, and depends upon and is altered according to the suggestions made. When we say to the hypnotized patient, "breathe deep, breathe deep! your blood is circulating finely all through your body," etc., the pulse becomes more full and strong, and, combined with massage and repeated suggestions, the effect upon the circulation and the large increase of red blood corpuscles is indeed wonderful. By suggestion and massage the number of red blood corpuscles can be increased to double, and the white to several times the amount, as I have found from experiments, time and time again. (See Keyes' treatment of tuberculosis, Vol. II, No. 1, Journal Amer. Psychol., Med. and Surg. Soc., 1898.)

To sum up the physiological effect of suggestion we may say that all vital action is reflex, and that by suggestion we may control the reflexes.

*(Keyes. Reflexes, normal and abnormal.)*

Thus the body responds to the suggestions made controlling the great nerve forces of the body and so impressing the nerve centers as to set in operation the various functions of the body, and by making them more automatic this is maintained.

By massage we may aid and place the suggestion. With suggestion and massage used together we may strengthen and enlarge the muscles, promote increased capillary circulation, stimulate the peristalsis, increase the activity of all the nerves, vessels and organs.

*(Keyes. Blistering by Hypnotic Suggestion. Medical Brief, 1897.)*

#### MASSAGE PROPER.

In all ancient systems of medicine some form of motion played the principal part in the treatment of disease. The old Romans used to put their slaves, too old for service, through massage treatment to make them look healthier and stronger in order to be able to sell them with more gain.

Homer sings of beautiful women who rubbed, to refresh, war-worn heroes after the toil of battle. Massage is the means used for cure among the Sandwich Islanders, whom Dr. Cook has so extolled, for the cure of rheumatism. Hippocrates says that a physician must be experienced in many things, but especially in rubbing. He himself (380 B. C.), laid down certain principles which today hold good, viz: 1st. Soft or light rubbing loosens or relaxes tissue. 2d. Hard or vigorous rubbing binds or contracts tissue. 3d. Prolonged rubbing causes tissue waste. 4th. Moderate rubbing causes tissue growth.

“Vigorous massage makes the tissues harder, light massage makes them looser, lengthy massage makes parts smaller and proper massage makes them larger.”

Massage has its progression. When starting to treat a patient it ought to be lightly given at the beginning and gradually increased after some treatments. As to strength and length of time of the application, it must be regulated by the physical constitution of the patient—as to individuality, age, sex and circumstances—and depends upon the good judgment of the operator.

Massage should be applied from the periphery toward the center, thus following the venous circulation. The pressure should be put into the upward stroke, only lightly touching the skin coming downward. This gives the patient a soothing feeling. The right hand of the operator is used with better advantage on any right part of the patient, and the same holds good regarding the left.

Massage may be applied by hand, by brushes or by instruments, such as muscle beaters, cannon, ten-pin balls, electricity, machinery, position, etc.

In considering massage by hand the question naturally arises, Where should we begin? If there is no cerebral disturbance the most natural point is the head. While the treatment at first should be gentle, it should proceed with increased vigor. If there is pain in the head or any other indication of congestion of the brain, the head should not be

treated until after the extremities, muscles and deep tissues, as well as the surface of the body, have received such attention as will divert the blood from the brain. Then careful massage should be applied to the head. This principle holds good in relation to the treatment of congestion, wherever situated. Manipulation should not be addressed at once to the congested or inflamed part, or any organ, as the case may be, which has too much blood already, but rather to the surface, muscles and extremities, that the blood may thereby be diverted, the congestion lessened and the balance restored. As a rule, begin with moderate pressure and use as large a surface of the hand as possible. By suggestion we may fully relax the muscles and thus render the patient more accessible.

The grips generally used are: Massage up, massage down, spiral, kneading, rolling, stroking, slapping, percussion, beating, pressing, shaking and vibration. These were divided by Dr. Mezzer, a Swedish physician, who was the first to apply, in a scientific manner, the massage treatment, into four classes, viz.: Effleurage (stroking massage up) frictions, petrisage (kneading), tapotment (percussion). Tapotment may also be divided into punctuations, hacking, etc.

Hacking is called chopping, pointing, clapping, beating or knocking, and percussion. There are various kinds of percussion, made quickly, one after the other. To do this manipulation properly one requires much practice and must have the wrist joint very flexible, so that a true vibrating movement may be produced and not merely a dead blow. The patient should not feel any pain, not even after knocking with the fist, but rather an agreeable sensation of warmth. Chopping or hacking is a kind of percussion made with the ulnar edges of both hands, which move alternately up and down from the wrist joint. Pointing is used over bony parts. It is a light percussion, and is done with the tips of the fingers. In clapping, the flat of the hand is used in an alternate manner, as in chopping. Beating or knocking is done with the



clinchd hand. In sawing, the ulnar side of the hand is moved like a saw, progressing slowly sideways over all the parts to be acted upon. In fulling, the palms of the hands are placed on opposite sides of the part to be operated on; one of the hands is then slid forward, while the other slides backward, and so on down the part, just as one rolls out a piece of putty or clay between the hands. In skin fulling a large fold of the patient's skin is taken hold of by the fingers of both hands, which is then moved to and fro so that the fold of skin is moved simultaneously in opposite directions. Abdominal fulling is done by an alternate movement of both hands, placed transversely, the ulnar edge of one pressing down, while the other is raised. Kneading is performed in a similar manner as in kneading dough. In vibration the hands or fingers, while vibrating, are placed on various parts of the patient, and so communicate their vibration. By widely separating the fingers, so that when a quick blow is given the stroke of each finger falls distinctly separate, the rate of the impact or percussion is quadrupled, and vibratory waves are made to pervade any fleshy part subjected to the process, and may be felt at the opposite side. Vibration may also be performed by light, rapid blows with a percuter—a small hammer which, under the reciprocating motion imparted to it, transmits vibratory action to the skin and flesh underneath. On account of the impossibility of sustaining the required rate of vibration, it is better to use some form of apparatus run by an electric motor, or in the place of vibration, electricity may sometimes be substituted.

As examples of general massage of the body we may mention head stroking. To do this both hands are used, the fingers of which are a little spread and directed upwards, one on the neck and the other on the forehead, and moved simultaneously upwards toward the crown of the head.

Back Stroking.—To do this the hands work simultaneously, alternately stroking very strongly down the back, from the neck to the sacrum.

Abdominal massage deserves special mention as it is the most important single procedure of massage, since the digestive system is such an important and often a defective one. In alternate abdominal stroking the operator stands in front of the patient, who may be in a half reclining, or reclining position, and moves his hands alternately from the patient's *linea alba* in a straight direction outwards. In concentric abdominal stroking the palms of the hands are moved in large or small circular lines over the whole surface of the abdomen, more or less pressure being used. In colon stroking the hands are placed parallel to each other, with their ulnar surfaces against the anterior surface of the pelvis, and pressed deep into the abdomen. The hand then passes upward to near the edge of the right hip bone and across the abdomen, while the right hand simultaneously descends down and inwards toward the pelvis. Or the operator may stand behind the patient, who leans forward with the abdomen well relaxed. The fingers are slightly bent and move with a vermicular kind of motion, up and down and sideways, all over the abdomen.

Head vibration.—To do this the head is grasped by placing one hand on the forehead and the other on the back of the head, and then vibrated. Nose and larynx vibration are performed by placing the fingers of one hand on both sides, and then vibrated.

(1. Keyes. *Hypnotic Suggestion as a cure for Asthma*. *Med. World*, 1896. 2. Keyes. *Hypnotic Suggestion as a cure for Neuroses of the Larynx and Pneumo-Gastric Nerve*. *Med. Herald*, 1896. 3. Keyes. *Hypnotism as a cure for Stammering*. *Columbus Med. Jour.*, 1896.)

Electricity and water deserve special mention and will in the future be much more extensively used for the purpose of massage, considering the progressive knowledge of these agents as an aid to the treatment by suggestion.

Water is applied in the form of rain, douche, sluice and spray—in the sun and under colored rays. It is therefore necessary, in order to carry out such treatment, that the patient be in a properly equipped sanitarium, and all inmates of

such institutions should receive the invigorating benefits of these treatments.

Here it may be enunciated that in massage, deep breathing, *i. e.*, full inspiration and as complete expiration as possible, is essential to the best results. If, therefore, you have a patient who does not ordinarily more than half fill his lungs, and who is consequently not more than half alive, the first treatment should be instruction in deep breathing. In short, you should teach him to breathe, by full inspirations, through his nostrils, with his mouth shut, which, in some instances, is a difficult task. It is rendered comparatively easy, however, by giving the instructions during hypnosis.

Medico-gymnastics are sometimes most useful and necessary in the treatment of a variety of diseases, and they may be considered as a branch of massage. Some of the movements used are bending, stretching, depressing, turning, shaking, raising, etc. They are divided into passive, active and duplicate.

Passive movements are those performed by the operator, such as flexion, extension, rotation, etc., and they prepare the body for active ones. Active movements are such as are performed by the subject voluntarily. Duplicate is active or passive, under which either the operator or patient makes resistance.

The movements may be performed in different positions, as lying, standing, sitting, kneeling or suspending.

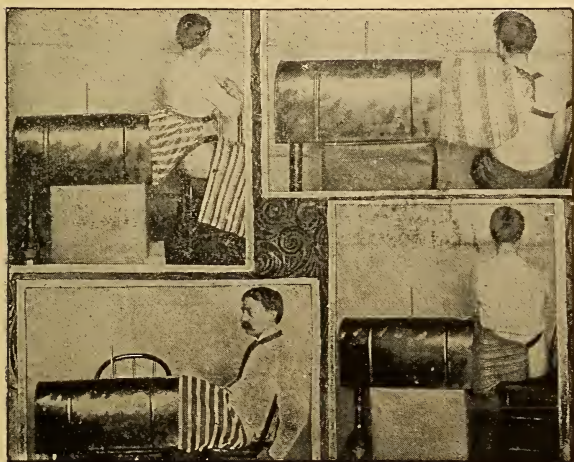
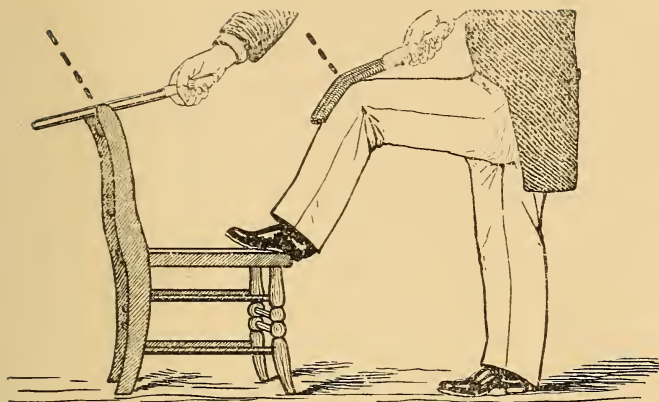
Bending.—1st. Head backward and forward a number of times. 2d. Body sideways, backward and forward. 3d. Knees sideways, forward, etc.

Stretching.—Legs, arms, neck and body.

Rotation.—Rotate the joints of the limbs, hands, feet, etc.; neck, body, etc.

In order to successfully carry out suggestive treatment, post-hypnotic, or suggestion *a echeance* should be made, that the patient will carry out some form of prescribed exercise, and that it will accomplish such and such results.





The above cut represents the Betz hot air apparatus for the topical treatment of acute, subacute, articular and gonorrhœal rheumatism, arthritis, ankylosis, synovitis, etc., etc. By this apparatus the arms, legs, shoulders, hips, kidneys, abdomen and chest and all other parts of the body may be treated with hot air at a temperature up to 450° F. It relieves pain immediately, causes absorption of effusion and restores mobility to joints stiffened from injury or disease. They should be used together with "Suggestion-Massage." Frank S. Betz & Co., (78 State St., Chicago,) are the manufacturers.

Such exercise acts as an excellent support of post-hypnotic suggestion and will, in many cases, assist in effecting a more speedy cure.

The following exercises are the ones upon which I rely most. They are some that were taught me by an early instructor, all or any part of which may be used:

#### HANDS ON CHEST.

Right arm extended forward four times.

Left arm extended forward four times.

Right and left extended, alternately, four times.

Both together extended four times.

Same exercise as above to the sides; also, upward, downward and backward.

Right arm extended and bent at the elbow four times.

Left arm extended and bent at the elbow four times.

Alternate and repeat four times, and then both together four times.

Same exercise with the wrist.

#### ROTARY MOVEMENTS OF THE ARM.

Left arm extended as an anvil and right arm rotated forward from the shoulder, as a hammer, four times. Alternate and repeat four times.

Repeat the same backward.

#### MOVEMENTS OF THE SHOULDERS.

Right shoulder raised and lowered four times.

Left shoulder raised and lowered four times.

Alternate four times. Both together four times.

Right shoulder rotated forward four times.

Left shoulder rotated forward four times.

Alternate four times and then both together four times.

Same exercise backward rotation.

#### MOVEMENTS OF THE BODY.

Bend forward from the hips four times.

Bend backward from the hips four times.

Forward once, backward once, repeated four times.

Same movements to the sides.

## MOVEMENTS OF THE LOWER EXTREMITIES.

Bend forward from the ankle four times.

Bend backward from the ankle four times.

Forward once, backward once, repeated four times.

Same movements to the sides.

Body raised and lowered on toes four times.

Body lowered and raised from knees four times.

Right foot forward four times.

Left foot forward four times.

Alternate and repeat four times. Same backward, to the sides, in the form of a star, etc.

## MOVEMENTS OF THE NECK.

Head rotated to the right four times.

Head rotated to the left four times.

Alternately to the right and left four times.

Head bowed forward four times.

Head bowed backward four times.

Alternately forward and backward four times.

## BREATHING EXERCISE.

Full inspiration and respiration four times.

Fast inspiration and slow expiration four times.

Slow inspiration and fast expiration, four times.

These exercises should be varied, and some should be repeated more than is set down above; and while the patient is performing the exercise let him imagine he is lifting a very heavy weight. We may add that during the entire exercise the patient should practice deep breathing.

Generally, a "Suggestion—Massage" treatment ought not to last over half an hour. Sometimes it is considered better to make the treatment still shorter—two or three times a day—while some cases do better by a long continued treatment.

Massage on the naked skin is seldom necessary, when combined with active movement and suggestion. In local troubles, however, it is preferable to apply the massage on the naked skin.

The art of massage should be learned by personal instruction, and demands a knowledge of anatomy and physiology.

MUSIC, ESPECIALLY IN THE PRODUCTION OF  
AUTO-MASSAGE.

In the proper hypnotic state music is capable of producing the most wonderful and perfect auto-massage of any means which will probably ever be known to man. Those who completely lose themselves in musical impressions will readily appreciate the conviction it brings, leaving no tension unrelied.

Strictly we cannot say that air is the only medium which can convey sound. For example, often persons who are totally deaf to sound, produced by excitement of the air, can hear the sound of a watch or a bell when held between the teeth; the sound being then undoubtedly conveyed by the portions of the head to the auditory center. In the suggestive attentive state every sense is more acute, and the sympathetic system and the entire body are ready to receive the slightest impression as is instanced in muscle reading, but this latter is generally far less sensitive than the sensitive suggestive state. Pythagoras, in ancient times, pursuing with his well-known zeal and persistence, the idea with which he was entirely absorbed—that of reducing all human knowledge to a mathematical basis—subjected the phenomena of sonorous bodies to a strict calculation. He calculated the number and relative value of the vibrations, and established the absolute correctness of the intervals contained within the limits of an octave, which led Leibnitz to say, later: "Music is a calculation which the soul makes unconsciously in secret."

Acting directly upon the nerves, and in perfect harmony with the solids and liquids that pertain to the whole animal economy, every nerve and muscle seems to vibrate to the music. Groups of muscles and single muscles of the limbs, trunk and arms, and sometimes the muscles of the neck and face, rise and fall, quickening or slacking their action to the

tempo of the air. The same may be said as to the beating of the pulse.

The phenomena produced by music on the physical constitution of man while in the suggestive state, are certainly very extraordinary, but their effect on his moral nature and intellectual faculties are much more marvelous. The emotions increase in proportion to the force or grandeur of the composers' ideas. Thus to some it will produce a feeling as though taking a wild furious ride through the air. Some music will bring up the image of lofty grandeur and calmness. If a waltz is played the patient will feel that he is enjoying himself at a grand party. If a march is played he will feel that his body is having a good time with his own body. The importance of discrimination, as regards the class of music and the key in which it is played, is thus readily seen.

Slow monotonous music, provided it is not too sluggish, has a calming influence over the individual, because it is then in accord and harmony with the nerve habit of the person who listens, if these essentials are wanting, it then may do more harm than good by causing irritation.

In order to bring the brain under the control of the music it is essential to arrest the attention. This may be done by its power or sweetness, then gradually conduct the organism into harmony with itself the key should accord with that in which the cerebrum is at that moment working.

As to the key, Gentry in his essays on music has laid down a series of rules, on this subject which seems to me useful for the composer to know. "The key of C minor is pathetic. The key of D major is brilliant and that of D minor is melancholy. The key of E flat is grand and also pathetic; it is a semitone higher than that of D major, and still does not in the least resemble it. By ascending again a semitone, we reach the key of E major, which is as sparkling as the preceding one and is grand and melancholy."

"The key of E minor is rather sad, although it is the



first minor scale in nature; that of F major is mixed; that of F minor is the most pathetic of all; the key of F sharp major is hard and sharp, because it is overloaded with accidentals; the same key in minor still preserves a little of the same hardness; the key of G major is war like and not as grand as C major; the key of G minor is the most pathetic, except that of F minor; the key of A major is a very brilliant one; that of A minor is the simplest, least brilliant of all; the key of B flat grand, but less so than C major, and more pathetic than that of B minor, which is adapted to express sincerity and artlessness."

In general all the minor keys are tinged with melancholy; they are most used for expressing sentiments, such as grief, etc.

A key should be chosen analogous in character to that of the person, as to age, etc.

In the treatment of melancholia plaintive sound is required in a key that will blend in harmony with the brain state of the person; the attention having been arrested the time may be gradually changed and modulated.

The violin and piano are probably the best instruments to be used, but to those who are not able to obtain proper musicians, the graphophone may be used to a great advantage.

Music thus used in the hypnotic state becomes a great and salutary agent for the relief of suffering humanity. The power of the suggestion may be greatly increased. It is especially useful in the treatment of mental diseases for sadness, despondency, etc., but its greatest use is in the cure of paralysis, locomotor ataxia, sciatica, St. Vitus Dance and other nervous diseases.

An able physician's diagnosis reveals the kind of treatment which should be applied, and the effect of the treatment tells the experienced operator what combination of move-

ments and manipulations, music and suggestions should be made.

#### THE APPLICATION OF SUGGESTION—MASSAGE TO THE CURE OF DISEASE.

There is not a single disease and no person that cannot but be benefitted by treatment by "Suggestion—Massage."

##### RHEUMATISM.

The patient being in a receptive state such suggestions are made to correct the symptoms pathological, according to physiology. (Absorption, elimination, etc.) The affected part is subjected to all the movements of massage, including hacking and beating. Begin with general massage of the whole body, and correct by suggestion the functions of the principle organs; then massage around and over the affected part. Continue with local massage of the diseased muscle, and finish the treatment with a few movements that give effect upon the circulation and respiration, with suggestions to keep the affected part as freely moveable as possible, and that he will manipulate and exercise the parts at times with the same good effect as if he were being treated.

In severe cases the treatment should be given twice, and sometimes thrice daily. From one to thirty treatments are generally enough to effect a cure. When the attack is over and the patient cured, suggestions, to act post-hypnotically, should be made to the effect [that the patient will carry out some form of exercise, and that by doing so results will be so obtained as to increase the general activity of the system and keep the disease from returning, and while making these suggestions the exercise should be taught.

##### SUGGESTION—MASSAGE, AFTER FRACTURES.

The most remarkable results may be accomplished in the healing of a fractured bone. Of course, the first thing to be done is to see that the bone is properly set. This should be done under hypnotic anesthesia and suggestions should be made as to the healing of the fractured bone.

(*Keyes. Hypnotic Anesthesia. Journal of Obst. and Diseases of Women and Children, 1896.*)



For the first few days the arm will be too sore to bear much manipulation, but gentle massage may be carried out from the first, always, of course, during hypnosis and accompanied by suggestion. By this procedure the length of time for convalescence of the part is greatly shortened. This is true of all fractures. In the future surgery and suggestion will go hand in hand, not only as to the healing of fractures, but also as to the healing of tubercular joints, sinews, etc., and after operations for malignant growths.

(*Keyes. Surgery, then Hypnotism, especially after Operations for Malignant Growths.—Charlotte Med. Jour., April, 1897. Keyes. Surgery and Hypnotism in the treatment of Crime and Degeneracy.—Medico-Legal Soc. and Jour., 1898. Keyes. Surgery, then Hypnotism, in the treatment of Masturbation, Insanity, Epilepsy, etc., etc. Keyes. Surgery, then Hypnotism, in the treatment of Strabismus.—Magazine of Med., 1897.*)

For this reason I have expressed my motto as: "Surgery, then Hypnotism."

#### AFFECTIONS OF THE EYES.

Suggestion, together with massage, is used with the most remarkable results in all affections of the eyes. In some cases it is well to massage the neck at the same treatment, suggestions being made to obtain the effect desired. The possibilities of hypnotism and massage in all affections of the eye is great. In many instances it is said to prove effective in the removal of cataract.

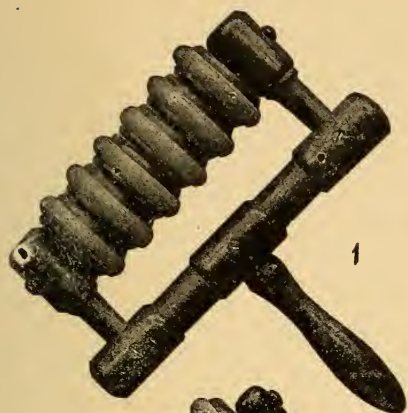
(*Keyes. Surgery, then Hypnotism, in the treatment of Strabismus.—Charlotte Med. Jour., 1897.*)

#### AFFECTIONS OF THE EAR.

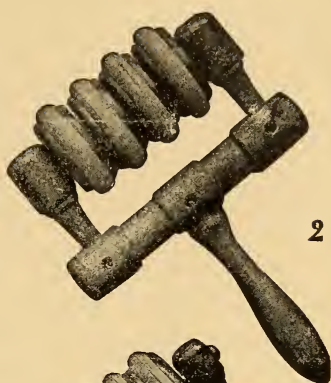
By the use of hypnotic suggestion and massage we may expect a far more hopeful prognosis of certain ear affections, especially those of central nerve origin. Otitis, purulent eczema of long standing, also yields to this mode of treatment. The manipulations consist principally in pressing the index fingers within the ear and circular strokings over the mastoid process; also in front of the ear.

#### DEAFNESS AND DUMBNESS CURED.

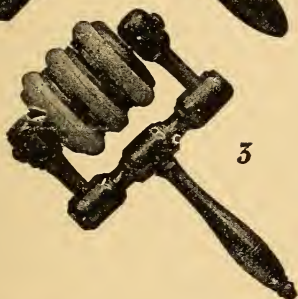
Mark, Chap. VIII, v. 32.—"And they bring unto Him one



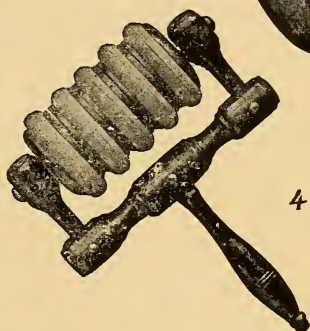
1



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10

The most improved Massage Apparatus may be obtained from the Health Culture Co., 341 Fifth Avenue, New York.



that was deaf, and had an impediment in his speech; and they beseech Him to put His hand upon him.

33. "And He took him aside from the multitude and put His fingers into his ears, and He spit and touched his tongue,

34. "And looking up to Heaven, He sighed, and saith unto him, 'Ephphatha,' *i. e.*, be opened,

35. "And straightway his ears were opened and the string of his tongue was loosened, and he spake plain."

#### AFFECTIONS OF THE NERVOUS SYSTEM.

General massage, with such suggestions as to strengthen and correct all unnatural symptoms, should be made. Passive and active exercise, galvanic and faradic electricity, and deep and searching massage and velocity vibrations, coupled with hypnotic suggestions, afford the most certain and speedy relief.

(*Keyes. Hypnotic Suggestion as a cure for Insanity.—Pacific Med. Jour., 1897. Keyes. Hypnotism in the treatment of Dipsomania, Morphiamania and Onanism.—Jour. Materia Medica, 1896.*)

Massage is used in the neighborhood of the affected muscles, together with such movements as are intended to increase the circulation through diseased parts. Suggestions are made to stimulate the entire sympathetic system. We suggest that the patient is getting warm over the region of the solar plexus (touching the part), and warm here (touching the region of the pelvic plexus.) You feel warm up and down the spine. You feel your body generating life force, electricity, etc. Suggestions are also made to correct every symptom, as to nutrition, etc.

#### MIGRAINE.

Suggestions are always effective. Massage should be carried out over the head and neck. It has been said that headache is often due to some irritation or adhesion of the muscles about the neck.

#### DISEASES OF THE DIGESTIVE SYSTEM.

The functions of the stomach and intestines, and of the pancreas and liver, may be increased by suggestion and massage, such suggestions being made to correct the conditions as to digestion, circulation, etc. To massage the stomach, press

the fingers beneath and upwards from the lower border of the sternum and give a vibratory motion to the hand. Pressing, percussing, shaking, kneading and rubbing may also be carried out over the entire intestinal region. Indigestion, non-assimilation, leanness, obesity, plethora, anemia, etc., may thus be cured.

#### OF THE LIVER.

Suggestion and massage of the liver are extremely valuable in any affection of this organ. In simple hyperemia, due to excess in the pleasures of the table or to a long continued residence in a tropical climate, it is very useful; also in chronic enlargement of the liver. Deep breathing is very essential, as it acts as "auto-massage" upon the liver, the contraction and relaxation of the diaphragm and chest walls alternately compressing and permitting the organ to expand. The majority of persons suffering from nephatic torpidity and congestion of the portal circulation are disinclined to make such exertions as would call for vigorous breathing, so that hypnotic suggestion must be strongly made in order that the beneficial effects of auto-massage may be obtained..

#### CONSTIPATION.

In treating constipation carry out the same as above. Give suggestions as to abdominal exercise. Carry out massage over the abdomen (making suggestions to increase the action of the intestines and to stimulate the hypogastric plexus), with beating and percussion of the sacrum and back.

#### HÆMERRHOIDS.

Besides the treatment already outlined in the two foregoing paragraphs, we may increase the amount of beating over the sacral region. The patient must also be instructed as to diet, hygiene, habits, etc., and as to the proper application of the usual remedies in such affections. Suggestions should also be given as to a form of calisthenics that will increase the circulation of these parts.

#### AFFECTIONS OF THE BLADDER.

Vibration is made over the perineum, pressure over the



pubes and percussion at the hips. Suggestions are made for the relief of the symptoms. Paralysis of the spincter, cystitis, and all diseases are benefitted by this treatment.

(*Keyes. Report of a successful cure by Hypnotic Suggestion of a case of Enuresis Nocturna et diurna,—Med. Brief, 1896.*)

#### THE OVER-DISTENTION OF THE BREAST IN NURSES—TO INCREASE THE AMOUNT OF MILK SECRETED.

The breasts may be controlled by suggestion as to the amount of milk secreted by nurses. Over distended breasts are very soon relieved. Use gentle friction to dry, and rub the nipples to excite secretion.

Diabetis, dysmenorrhoea and uterine affections may be benefitted and cured.

(*Keyes. Hypnotism—Its use in Nervous Functional Disorders of the Uterus and its Appendages.—Jour. of Materia Medica, 1896. Keyes. The treatment of some Diseases of Women, as to the Generative Organs.—Jour. Am. Psych. Med. and Surg. Soc., Vol. I, No. 1, 1897.*)

#### DISEASES OF THE HEART.

Suggestion and massage is an important treatment in all diseases of the heart. The remarkable success claimed for the Oertal treatment, the Schott method and other forms of heart gymnastics, in cases varying in gravity from extensive non-compensatory dilation, with or without valvular mischief, to the minor forms of transient disturbance of rythm, has led to some controversy. Some writers extol gymnastics, exercises, and mountain climbing in cases involving muscular debility, fatty degeneration and insufficient compensation. Others again declare that such methods of treatment induce a further pathological condition. Certain it is, however, that if the massage is performed while in the hypnotic state we may obtain beneficial results. General massage is carried out over the entire body. From day to day, the length and force of the manipulations should be gradually increased. As the patient becomes habituated to massage, passive movements of the limbs are practiced, the number and character of these varying with the state of the case. For hypertrophy of the

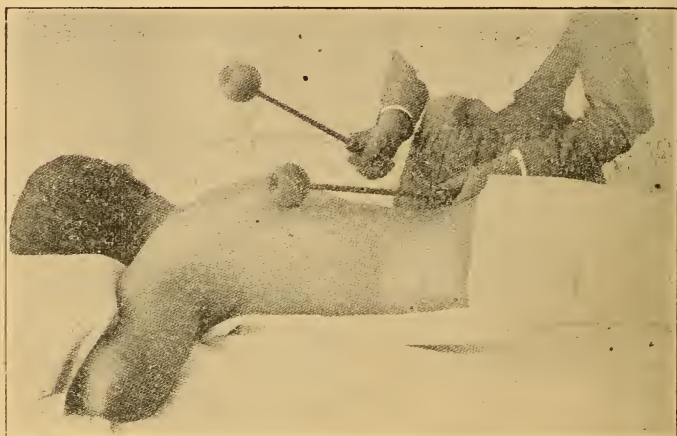


heart Ostrom recommends the following movements, and adds that from this series it will be easy for the masseur to select movements for affections of the heart where mechano-therapy is indicated:

1. Slow raising of the chest.
2. Half left rotation of the chest.
3. Slow rotation of the feet.
4. Left extension of the legs.
5. Punctation over the heart.
6. Half left separating of the knees.
7. Slow rotation of the body.
8. Clapping of chest.

In concluding this article let us add that in the treatment of disease "Suggestion—Massage" should play an important part, especially in diseases of severity, or of a chronic form, in combination with all of the other means of cure, which the latest scientific investigations have found of any value, and it is only in this later sense that this article is graced "The cure for incurables." But, of any single agent or remedy, "Suggestion—Massage" will be found of the greatest utility.

Thus, surgery to remove the cause when such exists—medicine and suggestion to relieve the conditions and functional disturbances.



# A CERTAIN CURE FOR CONSUMPTION,

## With Tabulated Report of Thirty Successive Cases.\*

By THOS. BASSETT KEYES, M. D., Chicago,

Professor of Suggestive Therapeutics Harvey Medical College; Clinicien of Surgery,  
Illinois Medical College; President of the American Psychological Medi-  
cal and Surgical Society, Fellow of the American Association  
of Physicians and Surgeons, and Chairman of its  
Section of Psychological Medicine and  
Surgery; Member of the Medi-  
co-Legal Society of  
New York, etc.  
Member of the American  
Association for the Study and Cure of Inebriates, etc.

Pulmonary phthisis shows a natural tendency to recover in only a small number of cases, and the ratio of mortality from this disease is greater than that of any other. It is pre-eminently an insidious disease, and there is no distinct time when health ends and disease begins.

Of late years the theory that all pulmonary consumption is due, in the first place, to defective pneumogastric innervation has gained certain intelligent adherents, who claim, with plausibility, that all are exposed to germ disease, but that the bacilli only thrive and multiply in lung tissue of lowered vitality. This theory is here advanced, with the addition that the pneumogastric innervation leads to ganglionic exhaustion, in the first instance, principally at the solar plexus.

The great sympathetic ganglionic nerve system supplies the life force, and all parts of the body, even the blood and its constituents are its agents. Morgagni (1740), and Legallois (1812), and later Valsalva and Landois, have observed that

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\*Read before the American Psychological Medical and Surgical Society, December 17, 1897.

section of both vagi causes pneumonia, paralysis of the parts and death.

In the treatment of consumption all irritations should be removed, and see that the nose and throat are in normal condition. If hypertrophies of the tissue in the nose or other abnormal conditions exist, then remove them. If there are enlarged tonsils, excise them if their state demands. In fact, every symptom of a tubercular patient, and all conditions, such as catarrh, ask for thorough treatment. The patient should be instructed as to hygiene, diet, and some form of calisthenic exercise should be prescribed. The following, to be used as a steam inhalation, is also beneficial:

R

Menthol, gr. V.

Terebene, gtts. XX.

Creosote, gtts. XII to XX.

Glycerine, ʒss. to ʒj.

M. Sig. For one day's treatment.

Every medical man well knows that all consumptives suffer, more or less, with affections of the stomach—generally catarrh. Most of the treatments now in vogue, viz: by antiseptics, owe their beneficial effects to their local action upon the stomach and the nerves of that region.

Recognizing this pathological condition of the stomach, and from our knowledge of the important part the great solar plexus takes in the generation of the life force and regulation of nutrition, and knowing that by hypnotic suggestion we can psychologically increase or diminish any physiological function of any part of the body, I have formed the following plan, which has been carried out with the result of a cure in thirty consecutive cases. And let me here add that existence of cavities in the lungs does not banish the hope of arresting the disease and obtaining progress and health by treatment.

The stomach having been prepared by proper fasting (at least five hours), is cleansed by the Turke method, *i. e.*, by a gyremole and sponge and double-flow tube. It is seldom

necessary to employ the gyremole but once; not frequently, three or more times are required. Through a double-flow tube about two gallons of a solution of chinsol (5gr. tablet to two gallons of water), is passed in and out of the stomach, thus irrigating and cleansing it thoroughly. After the chinsol solution, a gallon of sterile water should be run through to remove it, as the tendency of antiseptic solutions of this kind is to destroy the leucocytes of the blood, the very friends we should endeavor to cultivate. A gallon of sterile water, with the addition of one drachm of sodium chloride, is now run into the stomach and intestine and left there. The temperature of these solutions should be 120° F.

In all cases, at the first few treatments it is surprising to witness the amount of catarrhal mucus which exists. These irrigations should be kept up daily during the first week, sometimes up to the third week, but do not repeat leaving the gallon of weak sodium chloride solution in the stomach over three times in succession. This latter stimulates the kidneys, and cultures made from the urine shows that, to a considerable extent, the tubercular bacilli are eliminated, together with other pathogenetic germs.

By suggestion the most sluggish and virulent sores may be made to heal, the heart to beat fast or slow, sensations of heat to appear on parts, and we may increase or diminish the temperature of the body, make the pupil contract or dilate, or increase the peristalsis of the intestines. In short, the body responds to suggestion, and we may dictate terms according to the physiology of any of the organs or parts, and these terms or suggestions are brought into action through the medium of the mind and nerve system. To those who have studied along these lines it will not be surprising that a tubercular cavity may be made to heal, and now comes the most important part of this plan of treatment. It is in the use of suggestion massage. The patient being placed into the desired suggestive state, suggestions are made as to the correction of all pathological conditions, such as inflammation, according to

physiological principles. The patient is instructed to breathe deep, so that the circulation will increase. One of the principal secrets of success in the treatment by suggestion is to stimulate ganglionic activity by such suggestions as these, You feel warm here (touching the part), you feel warm up and down your spine and on the top of your head; you feel this nerve system generating life-force electricity, and this life nutrition is going to the affected part. Patients to whom these suggestions are made, if in the proper state, will feel the force generating within them. "I feel like an electric battery," many say. This treatment is in reasonable accord with the cause of consumption here advocated.

Now, general massage and movements including all of the manipulations, as friction, beating, kneading, chopping, sawing, vibration, etc., etc., are carried out, coupled with the suggestion of the effect desired, as to sleep, digestion, circulation; habits of the body, as to the healing of the cavities, night sweats, diarrhoea or constipation, etc.

Vibration of the chest is one of the most important of the massage manipulations. To do this it is better to use some form of apparatus, run by an electric motor. For this purpose we recommend Professor Boschetti's small hand apparatus, which transmits a rapid and almost silent rotary movement to an articulated metal rod or flexible cord, producing from 4,000 revolutions a minute upward. An eccentric changes the motion from a rotary to a tremolo at will. In place of this we may use the hands alone which, while vibrating, are placed on various parts of the patient, and so communicate their vibration; or also by light, rapid blows, with the fingers widely separated, so that when a quick blow is given, the stroke of each finger falls distinctly separate. The rate of the impact or percussion is thus quadrupled, and vibratory waves are made to pervade any part subjected to the process. Another form of vibration of the chest is to have the patient sit erect. An assistant on each side grasps a hand and extends the arms of the patient horizontally, and then



both at the same time and with the same motion bring the arms up and down with a very rapid, jerking, vibrating motion, repeating from twenty to fifty times. The vibrations from each side are propagated along the arm into the chest, where they meet and are broken into very fine waves. As a vibration, electricity may also be used.

We may now put the patient through some form of mental exercise. Have him imagine, during his suggestive state, that he is running, walking, rowing, etc., at the same time giving these suggestions as to the improvement that you expect will come: You grow strong, muscles get large and hard, and it makes you hungry. Your blood is circulating fine, you breathe deep and you are getting strong. The soreness and inflammations are healing, etc. By mental gymnastics, as above, weak muscles will become well developed and powerful.

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Twice a week the patient should receive a steam bath during the suggestive treatment.

Having treated the entire body by general massage and corrected all of the various symptoms by suggestion, we should give instructions during the receptive state, as to diet, hygiene, inhalations, exercise, etc., which are to be carried out between the treatments. These instructions are given in such a manner so that by performing them they aid the treatment, not only by their own value but by the post-suggestive influence.

Some of the post-suggestions, or suggestion a-echange, may be as follows: If the patient is strong enough we would say to him: "Before each meal you should walk around the block four times, breathing long and deep. By doing so it will make you grow strong and fat; it will make your lungs strong; it will make them heal; the blood will circulate so finely all through your body and you will be so hungry (touching the stomach), have a good appetite and sleep well nights. You will eat such and such, and it will agree with you, and be digested and assimilated, and make flesh and



muscle, etc. You will use the inhalation three times a day, and we may add that it will loosen the secretions, cause soreness to disappear, the lungs to heal, etc." All of the above suggestions, and others, should be repeated a number of times.

By the above treatment many patients, weak and anemic, even well advanced into the second stage (Loomis) of consumption, are rapidly cured, the usual length of time being from one to three, or several months.

It is somewhat remarkable to notice the improvement after a single treatment. Many of the patients gain a pound each day. The number of red blood corpuscles are increased to a most wonderful extent. In one case, with marked anemia, Mr. N. H., age 35 years, sickness dating back over one year, cough every minute, great amount of expectoration, no appetite, temperature 100, pulse 120, at noon. He had been to Colorado and returned worse. The case had been treated and pronounced tuberculosis by a number of excellent physicians, and a grave, serious prognosis had been rendered. Before treatment the blood was examined twice and the counts of red blood corpuscles were 3,700,500 and 3,897,000 to the c. mm. The percentage of haemoglobin was 30. An examination after the first treatment showed 6,560,700, the white corpuscles being in the ratio of 1 to 107 red and the haemoglobin 80 per cent. After the second treatment, examination of the blood showed 8,000,000 red blood corpuscles to the c. mm. From the first treatment the patient recovered rapidly, the night sweats and chills stopped and other symptoms gradually ceased. Patient felt entirely well in three weeks, with a gain of twenty pounds. He was treated six weeks and gained thirty pounds.

Of so much interest is the increase of blood constituents by this treatment that I append the following table. Fleischl's haemoglobinometer and the Thoma-Zeiss haemocytometer were the instruments used to estimate the number of corpuscles:

Keyes' Treatment of Tuberculosis and its Effect upon the Blood Count.

Case No.	Age	Sex	No. of Treatments	Stage of disease (Loomis)	BEFORE TREATMENT			AFTER TREATMENT			Weeks treatment to date of cure
					Red blood corp. to the c. mm.	White t. c. ratio to 500 red b. c.	Percentage of haemoglobin	R. B. C.	W. B. C.	Percentage of haemoglobin	
1	35	M	1	(om. 2d Stage	3,897,000	...	30	6,560,700	5	80	6
1	1	..	2	...	5,000,000	...	40	8,000,000	5	90	..
1	1	..	3	...	6,000,000	2	90	8,000,000	10	90	..
2	19	M	1	...	4,000,000	...	40	9,425,000	7	45	3
3	23	F	3	1	3,298,000	...	30	5,000,000	2	35	12
4	30	F	7	2	5,000,000	3	60	7,000,000	3	60	8
5	24	M	2	2	4,000,000	1	50	8,000,000	9	68	12
6	45	F	1	2	3,000,000	...	30	5,020,000	3	42	7
7	18	M	1	Advanced-1	3,250,000	...	30	4,800,000	8	50	9
7	..	..	2	...	4,000,000	...	34	6,009,000	2	62	..
7	..	..	3	...	6,000,000	...	52	7,000,000	6	65	..
8	48	M	1	1	4,000,000	...	30	7,653,000	12	45	4
9	29	M	1	1	2,389,200	...	20	4,000,000	2	26	20
10	80	M	1	1	4,000,000	...	30	7,890,000	9	42	12
11	33	F	1	2	5,000,000	...	36	6,000,000	16	40	16
11	..	..	2	...	6,698,210	...	..	8,000,000	10	..	..
12	26	F	1	1	4,500,000	...	..	6,000,000	..	..	8
13	27	M	1	1	5,000,000	...	..	7,000,000	9	..	7
14	27	M	1	1	6,000,000	...	60	8,000,000	25	..	4
15	19	F	8	2	3,129,876	...	30	579,211	26	..	10
16	26	F	2	2	3,891,172	...	26	598,600	32	..	22
18	32	F	3	1	4,986,720	...	..	8,000,000	..	..	8
18	..	..	4	...	5,230,000	...	2	7,368,200	..	..	10
18	..	..	5	...	6,281,190	...	..	..	..	..	..
19	40	F	1	2	367,890	...	..	5,000,000	12	..	..
20	45	M	1	2	1,350,000	...	..	4,000,000	20	..	30
21	37	M	6	2	2,790,000	...	..	4,000,000	11	..	10
22	..	..	7	...	3,800,000	...	..	5,298,000	..	..	15
23	52	F	1	1	4,900,000	...	..	6,900,000	6	62	..
24	23	M	1	1	3,689,000	...	..	6,000,000	3	29	10
25	21	F	1	1	2,911,328	...	..	4,240,000	2	..	20
26	30	M	1	2	1,900,000	...	..	3,782,400	9	40	7
27	28	M	1	2	2,890,000	...	..	3,691,025	8	26	8
28	35	M	1	1	3,786,700	...	20	3,982,000	9	28	8
29	18	M	1	1	2,900,000	...	20	4,000,000	2	50	10
30	41	M	1	1	5 000,000	...	49	6,000,000	..	..	..

Many of these cases were examined several hours after the treatment. It will be seen by the table that the number of red and white corpuscles were well maintained and improved throughout, which goes to show that the increase is due in part to production through a metabolic process.

From the results obtained we may draw the following conclusions:

1. That by suggestive massage we may greatly increase the number of red blood corpuscles.

2. That the gallon of weak sodium chloride solution left in the alimentary canal is largely absorbed during the treatment, and that it acts by attenuation and elimination of the toxins and bacteria, the kidneys becoming very active.

3. That large irrigations stimulate the sympathetic ganglionic nerve systems, and remove toxic products, often relieving the cause of the disease.

4. That by this method all consumptives can be cured who have not advanced beyond the first stage (Loomis), and that many who are still further advanced in the disease may be cured.

5. That hypnotic suggestion is a most effective therapeutic agent, and that it will soon become universally demanded.

This is the physiological treatment of consumption briefly outlined. To it may be added in some cases certain aids. Thus in a selection of cases where cavities exist in the lungs we are trying the treatment so lately brought forward by Dr. Murphy, *i. e.*, injecting into the pleural cavity nitrogen gas, so as to compress the lung and force rest.

Nitrogen gas was advocated years ago as a remedy, but was used in a different way through the respiratory tract. The method of Dr. Murphy is quite original and for the purpose, as said before, to force rest.

However, the results obtained by his treatment alone cannot be favorable, for the cause has not been removed, and there still remains a soil which will rekindle into disease. We must first or at the same time remove the reflex and exhausting cause. This is done by resorting to surgery in some cases (as in the treatment of catarrh of the nose), and carrying out the physiological treatment here outlined. Thus consumption can be cured.

## THE FEEBLE-MINDED AND IDIOTIC.\*

### Suggestion and Music as an Aid to Their Education and Physiological Training.

BY PROFESSOR THOS. BASSETT KEYES, M. D., OF CHICAGO.

The first recorded instance we have of an attempt made to educate a deaf mute was in 1679. The Rev. Mr. Philip Nelson, of Massachusetts, attempted to teach a deaf and dumb boy to speak. In this the neighboring community thought they saw an attempt to imitate the miracles of Christ and his efforts to teach the boy brought only reproach upon him. However, it led to the establishment of schools for the education of the deaf in other countries.

In the year 1800 we have the first attempt made to educate an idiotic person. Itard, the physician to the deaf and dumb institute, undertook to educate a so-called wild boy who had been found in the forest of Aevron in France. The experiment, though carried on for six years, was unsuccessful as to improvement of the patient, but it was a stimulus to an advancement in the direction of the education of the idiotic; idiots having heretofore been considered as the result of some relation to either God or the devil.

As to music in the hypnotic state; it is a wide field for the therapist in which little study has been made. Of music alone, Drs. Bucknill and Tuke, in their work on psychological medicine say that music is the first recorded remedy for the relief of madness. In the asylums in France music is a regular feature in the course of treatment. A few years ago some interesting experiments were conducted in one of the New York City lunatic asylums, Randall's Island. Several of the patients, it was claimed, were greatly benefitted. Cases recorded in the literature of psychiatry are not a few where the cure by music has bordered on the miraculous, but as to the treatment of idiocy music has never been carried to a terminal issue.

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The true idiot, as defined by Dr. Seguin, is an individual who knows nothing, can do nothing and wishes nothing; and he adds that it is one of the characteristics of idiocy that it is constantly represented in an individual by one or more anomalies in the functions of the senses, viz: deprivation, imperfection, dullness or exaltation.

Ayers describes idiocy as embracing every imaginable shade of mental phenomena between that state in which no ray of intelligence nor instinct is found, to that point in which it is difficult to tell whether the individual is governed by instinct or intelligence. Idiocy, imbecility and dementia are prominent characteristics of idiotic life.

Brockett defines idiocy as the result of an infirmity of the body which prevents, to a more or less extent, the development of the physical and intellectual powers.

Dr. Ireland, of Edinburg, defines idiocy to be a mental deficiency, depending upon malnutrition, or disease of the nervous centers occurring either before birth or before evolution of the mental faculties in childhood.

The intelligence of the idiot, *i. e.*, the brain of the idiot does not seem to vibrate and be in tune with its surroundings, consequently impressions are not conveyed to the brain, either telepathically or objectively. There are often cases that are defective in sight and hearing; the hearing is imperfect not from disease of the internal organs but from the waves of sound being unable to excite sufficiently the nerves connected with the auditory apparatus, analogous is the sense of sight.

Not only the brain but the entire system is sluggish and in a lower state of vibration as is seen by the weakened circulation, sometimes due to pathological conditions exhausting the sympathetic system, sometimes only functional from improper development.

There is often some slight exhibition of intelligence, the



laws by which it is united to a living human world being more effective.

As idiocy primarily is often due to a pathological or mechanical cause we should search for and when such is found apply proper surgical treatment. Trephining may and should be done in traumatic idiocy, epileptic idiocy, congenital idiocy, and in micro-cephalic idiocy. In hydro-cephalic idiocy the establishment of drainage from the arachnoid or tapping should be performed. While in simple forms of idiocy, pharyngeal and enlarged tonsils, and conditions which often exist about the rectum as congenital narrowing, and all abnormal conditions about the body should receive proper attention.

Let us now suppose that we have corrected the anatomy of every part of the idiot's body, we have a patient whose mental faculties are simply in a condition of lowered vibration of development. By removing the pathological abnormalities we have simply but the patient in a condition so that his body may be trained or tuned to outside influences, and the education of the idiot and the task of developing to the utmost the abilities which are latent in him now demand our attention. He is a patient as well as a pupil.

Suggestion so widely applicable in the treatment of all of the diseases to which the human family is heir to is of great importance here, even though the patient be in such a state of mental disorganization as to be unable to comprehend the suggestion, even though a total idiot. The suggestions should be in tune or key with the body or the vibration of the patient.

The following illustrates the value of simple suggestion: Mr. Richards who was engaged in the training of idiots for a number of years, and who has done much to alleviate the miseries of this class, being for a long time teacher in the Massachusetts State Asylum for idiots and later in a private



school in Pennsylvania, said (N. Y. M. M. 1856. The causes and treatment of idiocy.): "Having often noticed that an experienced nurse would endeavor to arrest the attention of a new born infant, not by showing it some pretty toy, but by talking to it as if it were an intelligent being. I took this for my guide and preparing myself for a task, laid upon the floor an hour each day, reading aloud to this imbecile boy as if he understood me perfectly. ( This practice was pursued for several weeks, till one day instead of lying on the floor, I sat in a chair. In a few moments I saw by his efforts to move, that he had missed me. As soon as I again placed myself by his side, he stopped fretting and appeared to be pleased. Here then was a 'fulcrum on which to rest my lever'. At the next lesson instead of reading aloud I read to myself. He noticed my silence and slowly putting his hand to my mouth, he attempted to open my lips. Upon reading aloud again he expressed his pleasure by a smile. This practice of reading and talking was steadily persevered in for a number of weeks; during which time I was enabled to gain his confidence little by little; and during the four years which followed, he more than answered my highest expectations, becoming a marvel to his friends and those who had previously known him. At the end of that time he could read intelligently and walk and talk like other children."

The above case was "a boy five and a half years of age, who neither walked, crept or rolled over when placed on the floor. In whatever position he was laid he remained even for hours together. Mastication with him was out of the question."

From the above case the usefulness of suggestion is shown and that its value could be increased if scientifically employed.

As a means to promote the effect of the suggestion, to hold the attention and establish a sympathetic correspondence with the body, vibration and music from which there is mel-

ody as from the violin I have found to be of marvelous usefulness. And while suggestion and melody and vibration have such a wonderful effect upon the idiot (who is still an idiot, a more wonderful and rapid effect is obtained when they have become sufficiently educated as to be placed in some degree of hypnosis. Proper melody holds the attention so that they are more easily brought to this point, and enables us to tune our suggestions to the patient.

Music and suggestion seem to answer more purposes to better advantage than any other means. Not only the moral and intellectual training may be advanced but their physical organism which is usually a defective one may be strengthened and its defects alleviated by the effects of the auto-massage produced (the effects of music upon the hypnotised subject) and thus the proper amount of co-ordination in muscular efforts are remedied, such as is instanced in the defective voice, the muscles of the lips, tongue, throat and chest being generally more or less defective. Where the cerebrum is diseased, it in great part recovers its tone by being brought into healthy exercise, and attracts a greater supply of blood, so that music in the attentive state not only increases the growth of the body but also particularly of the brain.

The sense of hearing and that of sight, occupy the positions of pre-eminence among all the other senses in the animal economy. Each lending the other mutual support, they are almost always in direct communication. The ear, and by this word I mean the entire system of hearing, is the medium through which we experience the keenest sensations and the liveliest emotions. The stimulation of the nerves of sensation enter consciousness as a determined quality. The bodily impressions become a psychic state, or in other words the sensation becomes a feeling.

The effects of music alone upon the lower animals is noticeable. The spider it is said is particularly fond of music,

and of whales and porpoises it has been written that they could not resist the effects of some music. The war horse, excited by martial music or the sound of the clarion, grows restive, runs and plunges furiously into the midst of the fray, and the thickest of the fight. It is commonly known that dogs are keenly sensitive to the sounds of certain instruments. Music makes some of them utter woeful cries. Gretry observes that these animals howl, particularly when the discords are long sustained, but never if the melody is simple, or if the rhythm is appropriate to the chase.

When a bird is first having a lesson from a bird organ, you will observe that at the very first sound he opens his eyes, becomes very attentive, approaches the bars of the cage, and the gentle shaking of his wings, as well as the trembling of his body shows that he is affected by the sounds to which he is listening. If his lesson be prolonged for some time you will soon hear him warble some of the notes he has just heard. By many repetitions he will eventually be able to repeat the air that you have played to him on the organ.

Music on the normal human mind when in a state of more or less hypnosis produces variable results. Some music has special action on the intelligence and motor nerves. Other music influences the nerves of sensibility and the sentiments while again, some music acts all at once on the intelligence, and on the sentiment and on the motor and sensory nerves. Music completely occupies the attention, reinstates emotions of self-expansion of a finer intensity than those which could be created by any real activity in the modern reflective mind. The laborious sense of tension and restraint is gone and in its place there arises a sense of irresistible mental power. The perceptive and discriminative activities that labor in thought are engaged in following the forms of musical ideas. The idiot must be taught through his perceptive faculties, this may principally be done by strengthening their attention.

Idiots have a turn for music quite disproportionate to their other mental faculties, and not infrequently those who cannot speak at all can hum tunes correctly, and it has been mentioned that we can discern the first traces of the musical faculty in those rythmical movements which are noticed in idiots of the lowest class, such as whistling or emitting uncouth sounds, rocking their bodies, etc. By nature man is a musician his emotions having created him as such.

In order that the music will attract and hold the attention it must be in a key that will correspond with the vibration and state of the brain of the patient. Unless, say, a measured cadence begins with a powerful appeal to the brain in a key which accords with that in which the cerebrum is at that moment working, a negative result ensues. Its usefulness depends largely upon the power of the pitch element to fully engage the mental activity.

In the education of the idiot the first tones should be of pleasure, happiness and affection. The tones of sorrow, grief, and remorse are heard later; for sadness and remorse presuppose the development of moral faculties, of affectional emotions, of friendship, fidelity and devotion, in fact a relative civilization. Later as education advances religious training and spiritual music should be instituted.

During this time much will have been accomplished by oral suggestion, the music serving to hold the attention, and it is to be assumed that from the commencement of the education and treatment that the patient has been placed in as good hygienic position as possible, and that appropriate gymnastic exercises in which the faculties of imitation and attention are used have been applied, to call into activity the wasted muscles. Movements to music will be found useful for the purpose of precision and to correct the want of co-ordinating power. The legs are trained by musical drill, by walking upon or between the steps of a ladder placed upon the ground and by the use of apparatus found in every gym-

nasium. The power of co-ordination is also strengthened by threading beads, plaiting, by the use of forms such as circles, squares, triangles and oblongs made of wood and fitted into corresponding depressions, by using boards in which nails are taken out and put back again. Habits are taught by repetition. Idiots may be learned to walk by placing them in a go-cart, or better, a baby jumper and if the legs refuse to bend and the feet to step they may be taught by making them encounter, with the regularity of a walk, a spring board which alternately receives and throws them back. The gait is regulated by the use of dumb bells, etc. The hands are taught to grasp by clasping them about the rounds of an inclined ladder and requiring them to support the weight of the body, or by the use of the balancing pole, which is thrown back and forth between the child and the teacher.

Idiots, as a rule, speak according to the amount of their intelligence; however, some with considerable power of attention, observation, mental perception and memory are quite dumb. The best way to teach them to speak is to cultivate their perceptive faculties and increase the growth and nutrition of the brain and other organs. This is best accomplished through music and suggestion. As their mental faculties improve words come.

Great attention should be given to the development of the sense of touch, and the muscular sense, they should be taught to recognize objects not only by sight but also by touch and by the muscular sense. In fact as many of the senses as possible should be brought into action at the same time. As each organ progresses new avenues are opened by which ideas are brought to the mind.

In the tubercular and syphilitic, constitutional treatment should be given. While the ext. of the thyroid gland has been found very valuable in some cases, particularly of cretinism. If contractures of the limbs are present, the result of



cerebral disease, "suggestion-massage," electricity, etc., should be applied.

The idiot should never receive any form of punishment. Experience has proved conclusively that by this physiological training idiots and those feeble in mind can be treated, educated, trained, improved and cured.

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# THE TREATMENT FOR CANCER.

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BY PROFESSOR THOS. BASSETT KEYES, M. D., of Chicago.

Cancer causes more than four times as many deaths as typhoid fever ; but while medical officers of health devote so much attention in their reports of the latter they give little attention to the former. The continuously progressive increase in the cancer mortality has now been going on for more than a century.

Having carefully reviewed the entire literature on the subject of cancer as listed in the catalogue of the Surgeon General's office, and the Index Medicus in all some several hundred articles we found that the census of opinion is, as every one knows, that cancer can not be cured either by medical treatment or surgical operation, and as to whether cancer can best be treated by medical and local treatment, or by surgical operation has received a large share of the physician's attention, and here we have a division of opinion. Some claim that life is prolonged to a greater extent, and that better results are obtained by medical treatments and the employment of caustics and escharotics, and that the operative treatment shortens life. Others, the surgeons, claim that operative treatment is a more certain palliative; that it relieves the patient to a greater extent, and for a longer period of time, and that if an early operation is performed a permanent cure will sometimes result. Early operation should be the watch-word of every physician.

When cancer is left to itself, says Jackson, it requires about seventeen months to destroy life, if of the cervix of the uterus, and if of the body thirty-one months. Sims gives the

average duration at eighteen months. Pawlik states that according to Lebert and West that the average duration from the beginning of the disease is sixteen or seventeen months.

As to the treatment of uterine cancer, which is the most common, we have three methods, viz.: 1. Chemical or actual cauterization. 2nd. Amputation or excision of the diseased structure. 3d. Extirpation of the entire uterus, and as much of the surrounding tissue and lymphatic glands as possible. Surgical technique has now so far advanced that the latter method is preferable and should be carried out in proper selected cases. In order to do this an early diagnosis must be made. This I am aware is not always possible as the early life of cancer is insidious, usually unobservable and symptomless, and the disease has often become too far advanced before the physician is consulted, for the successful treatment by early excision, and even in early operation without the aid of suggestion results are discouraging. Fritsch, one of our best operators, has given us the final results of sixty cases of total extirpation for cancer of the uterus, and he has been honest enough to tell us that at the end of three years he had only two patients alive. Ferrier has given us the results of eighteen operations of total extirpation of the uterus for cancer, and at the end of two years only four patients were alive. The statistics of this day are generally in accord with these, though some are more encouraging as to the primary mortality—what of the remote results? But there is a cure—it is found in properly applied suggestive treatment. After removal of the cancer we may prevent its return and promote health.

Suggestive hypnotism has been recommended as a cure for cancer by a number of observers. It has been recommended as a palliative by the more conservative, for by suggestion, though there is a number of recorded cases, we will seldom succeed in doing more than relieve the many distressing symptoms, particularly of the digestive and urinary sys-

tems in cancer of the uterus, and to relieve the pain. In the proper state of hypnosis certain music exercises certain effects upon the nervous organization, and this promotes the effect of suggestion.

As to the cause of cancer, study has only shown that it is a change of tissue, and it is a trite saying that carcinoma is simply a return to the fetal state. It is thus probably due more to failure of the tropic nerves and nutritive conditions than to anything else. From the fact that disease is incompatible with health, it naturally follows that where disease has taken possession of a structure there must previously existed an enfeebled condition of the parts affected, *i e.*, some irritation, which exhausts the ganglionic system from supplying the proper amount of nerve force. Cancer occurs usually in those organs which have passed out of usefulness, as of the uterus at menopause.

When one observes the perfect auto-massage that is produced in the hypnotized subject when certain music is played he will readily appreciate how this will increase the activity of the nerves, tissues, etc., and thus the nutrition of the parts, and also the remarkable aid it lends to the suggestion. And this leads us back to Aesclebiades of Prussia, a man of great natural ability, who in the first century before Christ taught that the body was composed of atoms and corpuscles, and that health arose in consequence of harmony between the atoms and corpuscles, and that disease was a result of a lack of harmony or discord. This is food for thought. With suitable music parts of the body of the hypnotized patient are harmonized. Suggestions are made to the patient to tune himself to the music, to tune every part and organ to the music, and to follow the suggestions.

This article is not, however, intended to depreciate the operative treatment. In all cases where the disease has not too far advanced, we recommend total extirpation of the part with the surrounding glands. Suggestive treatment should

then be carried out with a view of preventing the return of the disease. By suggestion the wound from the operation may also be made to heal much better and firmer and in a much shorter time.

Thus cancer can be cured, and it was with the idea that I first expressed my motto, as "Surgery then Hypnotism," in an article in the Char. Medical Journal, February, 1897, entitled "Surgery then Hypnotism Especially for Malignant Growths."