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Manual Therapy: Rediscovering an Ancient Healing Art

by Barbara Cohn

The healing power of touch. We experience it when we rub a stubbed toe or a loved one hugs us for reassurance. It is part of the archetypal unconscious alluded to many times in the Bible and in the literature of countless mythological traditions.

On a more practical level, "hands-on" healing, or what is more technically called "manual therapy" has been around since antiquity. The writings of Hippocrates in ancient Greece describe this healing art as it was practiced in his time. Manual therapy was used during the Middle Ages all over the world in areas as diverse as China, Finland, and India. Centuries later, "bonesetting," a curious misnomer for a type of spinal manipulation, was popular in Europe and especially in England. Although "bonesetters" usually had no formal training in their art, many physicians sent their patients to those "bonesetters" known for producing excellent results.

In the late 19th century, two new healing arts, osteopathy and chiropractic, were developed. Osteopathy, founded in 1874 by Andrew Still, a frontier doctor, originally focused on the relationship between the musculoskeletal system and disease. By the 20th century, however, osteopathy had evolved into a complete medical discipline, with osteopathic doctors (called D.O.'s) receiving medical training comparable to traditional M.D.'s (or "allopathic" physicians) and meeting the same state licensing requirements. Unlike allopathic physicians, however, osteopathic physicians receive considerable training in manual therapy. (Unfortunately for the medical consumer, many osteopaths don't actually use manual therapy in their practices since they can specialize in any area of medicine from dermatology to surgery.)

Chiropractic, too, focuses on the relationship between the musculoskeletal system and disease. The current theory is that imbalances of body structure and nerve irritation cause biomechanical and neurophysiological problems in the form of muscle spasm, pain and possible organ dysfunction. Manipulation, or "adjustments," are believed to reduce pain by improving joint mobility, which helps to restore the body to a more natural balance. Chiropractic training covers diagnosis, physiology, and anatomy while concentrating on spinal manipulation as its primary healing method. The specific type of manipulation used depends on the individual chiropractor: some use traditional methods while others use newer, "low-force" techniques. Unlike traditional M.D.'s or osteopaths, doctors of chiropractic (called D.C.'s) are not licensed to use medication or do surgery for the treatment of medical problems.

Recently, many physical therapists have begun to emphasize the importance of including manual therapy as part of their professional practice. Although basic training in manual therapy is included in their standard education (which emphasizes the more standard treatment modalities of hot and cold packs, traction, ultrasound, electrical stimulation, and exercise), more and more physical therapists are seeking postgraduate training in manual therapy. Historically, M.D.'s, who are generally untrained in manual therapy themselves, are more likely to refer their patients to physical therapists than to osteopaths, chiropractors, or other manual therapy practitioners when standard treatment fails to relieve pain.

In addition to licensed health professionals, there are a host of other practitioners who practice many different kinds of manual therapy. These include massage therapists, cranio-sacral therapists, trigger-point myotherapists, kinesiologists, Rolfers, Feldenkrais practitioners, and Trager practitioners. Unfortunately many insurance plans will not cover treatment by non-licensed practitioners. Licensed professionals, too, may use some or many of these techniques as part of their manual therapy repertoire. Among both licensed and unlicensed health pro-

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professionals there is a wide range of levels of skill in manual therapy. To choose a practitioner by his or her degree or title will not necessarily assure you a high degree of skill. Excellent manual therapy skills are learned, by and large, over years of clinical practice and in special training courses. Manual therapy is a specialty in and of itself and requires years of ongoing study and practice. The degree of expertise varies widely among practitioners; reputation, credentials, and personal recommendations should be strongly considered when seeking out a manual therapy practitioner.

Manual therapy techniques vary greatly, both in theory and in clinical application.

Manual therapy techniques vary greatly, both in theory and in clinical application. Some are effective for pain which comes from the body's "soft tissue" — this includes the muscles, ligaments, tendons, and fascia — while others treat pain that originates in other body systems. If you know the cause of your pain, it makes choosing the best type of manual therapy easier.

Another basic difference among manual therapy techniques is that some view the pain as an isolated symptom and treat it alone, while others view the symptom as mirroring an imbalance in the entire body and thus, treat the whole body. Site-specific treatment can be quite appropriate in certain cases: for example, if the cause of the pain is a sprained ligament in the knee caused by stepping off a curb (with no injury sustained by any other part of the body) treating only the knee may be all that's necessary. A whole-body approach, on the other hand, is often more effective for such common types of pain as headaches, low back pain and leg pain. For instance, low back pain may not improve until tight soft tissues in the shoulder, neck, and hip areas are released. In whole body modalities, you may be treated in areas seemingly unrelated to your condition because the body is viewed as a whole, each part affecting every other part.

Some manual therapy modalities incorporate patient education as an important part of the treatment. In addition to the therapist's use of "hands-on" techniques, the patient is often given instruction in exercises that complement the therapist's treatment. The patient is also encouraged to increase body awareness and find movement and posture patterns that help reduce — and may even eliminate — chronic pain. (Increased awareness of body movement and posture patterns may also help prevent stress from taking a toll on the body.)

The practice of manual therapy requires a different relationship between the practitioner and the patient than is usual in traditional treatment settings. This is due to the simple fact that the treatment involves the direct use of the practitioner's hands on the patient's body. In order for manual therapy to be truly effective, the elements of trust, confidence, open communication, and common treatment goals must be present in the relationship.

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How effective is manual therapy, overall, in reducing chronic pain? Unfortunately, we have no statistics to help us answer this question, especially since a wide variety of different techniques fall under the rubric of "manual therapy." However, documentation exists for the effectiveness of many of these techniques in reducing and in some cases eliminating chronic pain.

Manual therapy techniques abound. Some of the most commonly practiced ones include spinal manipulation, joint mobilization, myofascial release, muscle energy techniques, massage therapy, trigger-point myotherapy, cranio-sacral therapy, Feldenkrais technique, Trager, and Rolfing. We will discuss each of these in subsequent issues of Lifeline and will suggest ways to find techniques that best suit your individual needs.

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Manual Therapy: Part II

by Barbara Cohn

As we mentioned in our overview of manual therapy in the last (August 1989) issue of *Lifeline*, there are a host of manual therapy techniques that can help the chronic pain sufferer. Some focus on the joints, while others focus on the soft tissues of the body including the muscles, ligaments, tendons, and fascia.

Much of the pain that follows an injury results, ironically, from the body's natural tendency to "guard" against pain. As part of the body's natural protective reaction, the muscles and fascia tighten up. This can create a vicious cycle where the body tells the brain that it hurts and the brain tells the body to continue guarding. Manual therapy techniques work to interrupt this cycle and restore the body's normal function—it's ability to move and "work" normally. While manual therapy techniques can be used to treat isolated problem areas in the body, most manual therapists who treat patients with chronic pain will focus on the way the body as a whole functions and moves.

If you have been in pain for a long time, it is difficult to predict how soon you should feel a reduction in pain with manual therapy techniques. But since all manual therapy techniques are based on improving function, you should notice some functional changes after the first few treatment sessions. Often, your body's functional ability will improve first, followed by a reduction in pain. If function does not improve, the practitioner and/or therapeutic approach is not working as it should and you should consider making a change. If your body is starting to work better, it may be simply a matter of time before you begin to notice a decrease in pain.

All manual therapy techniques have in common the goal of releas-

ing painful, restricted areas in the body and restoring freedom of movement and function. Although the approaches discussed here overlap to some extent, there are also significant differences between them. Space limitations prevent us from fully describing the theoretical basis for each of the techniques we will cover here. Instead, our goal is to give you some basic information about these techniques.

The techniques we will discuss in this article are: high velocity/thrust mobilization, myofascial release, muscle energy, and trigger point myotherapy.

Manipulation and Mobilization

Different meanings for these two terms abound, and a lot depends on who you ask to define them. Osteopathic physicians are most likely to use the term "manipulation," chiropractors are most likely to use the term "adjustment," and physical therapists are most likely to use the term "mobilization" in describing what may be, in reality, very similar, and, in some cases, identical techniques.

For purposes of simplicity and clarity, this article will use the definitions of these terms established in 1983 by the International Federation of Manual Medicine. They use the term manipulation as it is defined in Dorland's Medical Dictionary — "the therapeutic use of the hands." Thus, manipulation refers to any type of manual therapy. The term mobilization is used to refer to any technique used to restore normal motion and function to the joints and soft tissues where these have been restricted. Mobilization techniques are categorized as either "mobilization with impulse" or "mobilization without impulse." Mobilization with impulse refers to what are known as "high velocity", or "thrust" techniques while mobilization without impulse refers to "soft" (gentle) techniques that increase mobility and function without the use of what is called "thrust." Among the most commonly practiced "soft" techniques are those we will cover in this article and in the final article: myofascial release, muscle energy, trigger point myotherapy, cranosacral technique, Trager technique, and massage therapy.

High Velocity/Thrust Techniques

High velocity or thrust techniques are among the oldest and most widely used techniques in manual therapy. These techniques are used on the joints of the spine or on the body's extremities.

Like all mobilization techniques, the goal of these techniques is to restore normal motion and correct position to the joints of the spine or the extremities. In



Manual Therapy author Barbara Cohn

the simplest of terms, here's how such a technique might be used. First, the practitioner positions the patient's body so that all the "free play" or motion in the joint is eliminated. Next, the practitioner applies a rapid, thrusting movement of short duration with his or her hands, in the direction in which the practitioner wants the joint to move. Typically, a "popping" or "cracking" sound can be heard when the thrusting motion is applied.

Each joint that needs to be mobilized will usually be mobilized only once in a given treatment session. At times, however, it may take more than one attempt to successfully mobilize the joint. Improvement in function or decrease in pain or both is usually noticeable immediately after the joint is mobilized. It is important to note that it is common to have an inflammatory reaction which can actually make you feel worse for a day or two following treatment. If this occurs, it can be alleviated by taking an anti-inflammatory medication such as aspirin or by using cold packs on the affected area.

You can expect to see significant improvement within a few sessions with this type of mobilization. If not, the technique or practitioner is not effective for you. A note of caution: it is especially important that this type of mobilization be performed by a practitioner well trained in these techniques, because if performed improperly, they can cause serious injury.

Myofascial Release

Myofascial release focuses on one of the soft tissues of the body — the fascia, which connects us from head to toe like a connective web and surrounds muscles, joints, ligaments, tendons, and bone. The fascia can exert a pressure of approximately 2,000 pounds per square inch, so any restriction in it exerts tremendous pressure on the body and causes pain.

Old or recent injuries can result in stickiness or "adhesions" developing in the fascia, so that muscles do not slide easily over each other and over other tissues, causing pain. Like the other techniques covered in this article, myofascial release can be used for pain involving a broad area of the body.

The fascia is malleable and can be stretched by applying gentle, steadily increasing pressure with the flat part of the hands until resistance from the fascia is felt beneath the hands. At this point, the first "barrier," or restriction in the fascia, has been reached. Sustained, gentle pressure is once again applied against the barrier until the practitioner feels the fascia soften once more. Ideally, this process is repeated until all the restrictions have been released, although accomplishing this can take a number of treatment sessions. The practitioner will look for and treat patterns of restriction in areas near the painful ones that are connected through the fascial web.

Trigger Point Myotherapy

This technique is based on the work of Dr. Janet Travell, the physician who treated President John Kennedy for chronic back pain. Dr. Travell identified patterns of muscle-related pain and traced them to shortened muscles with taut bands called "trigger points." Trigger points are extremely sore spots surrounded by taut muscle bands that have the unusual characteristic of "referring" pain to other parts of the body. For example, headaches can be referred from trigger points in the muscles of the neck and knee pain be referred from trigger points in the thigh muscles. The location of trigger points varies from person to person.

Dr. Travell discovered that trigger points can be inactivated by a method called "ischemic compression": pressure is applied to a trigger point, temporarily reducing local blood circulation. The pressure is then released, allowing increased blood flow back into the area.

Bonnie Prudden, an exercise and fitness specialist, developed a technique for inactivating painful trigger points in the muscles through manual pressure. She called this technique "myotherapy." First, the practitioner locates trigger points by palpation. Once a point is located, manual pressure is applied using the thumb or elbow causing the ischemic compression described above. This may cause discomfort that ranges from mild to substantial. But a good practitioner will vary the amount of pressure according to the patient's ability to tolerate it.

When trigger points occur in muscles, the muscle fibers containing them are always shortened. Therefore, stretching and range of motion exercises are taught as an integral part of trigger point myotherapy. These exercises help re-educate the muscles and maintain muscle resiliency after treatment.

Trigger point myotherapy is unusual in the extent to which it emphasizes patient self-sufficiency. Patients and interested family members or friends are taught pressure techniques and stretching exercises to use at home.

Muscle Energy Technique

This technique is very effective for stretching tight muscles and involves isometric contraction followed by relaxation, allowing the muscle to stretch farther. Muscle energy technique can be used in situations as diverse as stretching a hamstring muscle in the back of the thigh or restoring mobility to the spine by relieving tightness in the surrounding muscles.

To give you an idea of the way this technique works, we will use the example of stretching a tight hamstring muscle. The patient lies on his or her back. The practitioner helps the patient slowly raise the affected leg as high as possible without bending the knee until the practitioner feels a restriction in motion. This point signals the end of the muscle's present comfortable range of motion. The patient is then asked to apply pressure for 5 or 6 seconds against the practitioner's hand (e.g. to try to bring the leg back down toward the table.) While the patient is doing this, the practitioner holds the leg steady, not allowing any downward motion to take place. The patient is then instructed to completely relax the muscle. The practitioner will then be able to stretch the leg further without discomfort to the patient until a new restriction in motion is reached. Using this method, a small amount of "stretch" has just been added to the muscle. This process is repeated several times until the muscle is no longer too tight. If this technique works for you, you will notice some increase in your comfortable range of motion immediately, although several sessions may be required to treat a very tight muscle or group of muscles successfully.

One advantage to this technique is that it can be applied very gently with little risk of injury. This makes it ideal for treatment in cases where the patient

When trigger points occur in muscles, the muscle fibers containing them are always shortened.

has fragile bones or damaged tissues (e.g. in the case of osteoporosis or a herniated disk). Muscle energy technique is a gentle approach that requires the patient's active participation and cooperation in order to be successful.

Who Does What

All of the above techniques may be practiced by any health care practitioner who has been trained in that particular type of manual therapy. This includes both licensed practitioners, among whom are physicians (including osteopaths), chiropractors, and physical therapists, as well as practitioners who are not usually licensed under state laws, such as massage therapists, trigger-point myotherapists, and other manual therapists.

To briefly restate a point we made in the first article: there is a wide range of levels of skill in both licensed and unlicensed manual therapists. To choose a practitioner by his or her degree or title will not, in itself, assure you of a high degree of skill. Unlicensed practitioners can be just as good as licensed practitioners, but their services are rarely covered by medical insurance. (Sometimes their services are covered in the case of an accident if you have been referred by a licensed practitioner.) Excellent manual therapy skills are developed over years of clinical practice and special training courses that include hands-on instruction. Thus, a practitioner's credentials and reputation should both be considered. Perhaps one of the best ways to find a good practitioner is by word-of-mouth.

Choosing the right technique to try for your particular problem can be a challenge. Most practitioners use more than one manual therapy technique and many use quite a few. Ask your practitioner which technique he or she thinks is best to start out with and the reasons why. If not successful with the first technique, he or she will probably have others from which to draw. In evaluating whether a technique may be appropriate for you to try, it helps to be aware of the way your body feels and your tolerance levels. For example, if you know that even moderate pressure over a tender area causes an intolerable amount of pain for you, then a technique that involves such pressure isn't for you. Trust what your body and instincts "tell you." If either the technique and/or the practitioner doesn't "feel right" to you, look for a different approach or practitioner.

Choose a practitioner who carefully listens to what you have to say and wants your feedback —

someone you feel that you can trust and who is willing to work with you. This will enable your practitioner to treat you most effectively with the least degree of discomfort.

Editor's Note: The final article in this series of three articles on manual therapy will appear in the February 1990 issue and will cover craniosacral technique, massage therapy techniques, and Trager technique.

About the Author: Barbara Cohn is a freelance writer and certified Rolfer. She is grateful to the practitioners who lent their assistance in preparing this article: Ann Johnstone, R.P.T., Sandra Levy, T.P.M., Lucy Whyte Ferguson, D.C., and Bruce Rind, M.D.

References

Greenman, Philip E. Principles of Manual Medicine. Baltimore: Williams & Wilkins, 1989.

Travell, Janet G. & Simons, David G. Myofascial Pain and Dysfunction: The Trigger Point Manual. Baltimore: Williams & Wilkins, 1983.

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MANUAL THERAPY: MASSAGE, TRAGER® WORK, AND CRANIOSACRAL TECHNIQUE

by Barbara Cohn

This is the third and final article in our series on manual therapy. Previous articles covered manipulation and mobilization, trigger point myotherapy, and muscle energy technique. This article will discuss massage therapy, the Trager® approach and craniosacral technique.

Massage Therapy

Massage therapy is a widely used manual therapy approach that is based on ancient Oriental techniques as well as modern medicine. Massage can be most beneficial in its ability to promote relaxation, stimulate circulation and break the pain-tension-pain cycle that often accompanies chronic pain.

The past 10 years have seen a proliferation of massage therapy approaches, including therapeutic, holistic, Swedish, body work, Oriental, Shiatsu, deep tissue, acupressure, Esalen, Reichian, polarity, and reflexology. All of these massage therapy approaches include some form of kneading, pressing, or stroking of the skin.

To be effective, massage must be done directly on the skin surface. Because it is done with little or no clothing, be sure to honor your preference, if you have one, for a male or female practitioner.

One common massage therapy technique is Swedish massage, named for a Swede named Peter Ling who developed it in the early 19th century. A lubricating oil is applied to make it easier for the practitioner to perform "effleurage," the long stroking movements that are a hallmark of Swedish massage. Effleurage can be very soothing.

Other strokes are stimulating - "friction," a fast circular movement around joints; "tapotement," a slapping stroke done with the palms of the hands; and vibration, a shaking of the fingertips on the skin surface. The practitioner chooses from among these

different strokes, using whichever seem most appropriate.

Typically, massage is used over the entire body, but your practitioner may emphasize a particular area if needed. To receive all of the therapeutic benefits of massage, look for a practitioner who has a thorough knowledge of anatomy and massage as well as a caring and sensitive touch.

The Trager® Approach

Dr. Milton Trager, now 81 years old, discovered that he had gifted hands at the age of 18 when he gave a rubdown to his boxing coach. He continued to develop his manual therapy technique over the years, successfully treating many patients and eventually pursuing formal medical training. There are now over 800 trained Trager practitioners worldwide.

Unlike massage, there is no long stroking of the skin surface with Trager work. Instead, gentle rocking movements are used that encourage relaxation and release of muscle tension. Practitioners work with a painless, light touch and minimal pressure, coaxing painful areas to release. If you feel discomfort, the Trager practitioner backs off and works more lightly.

The Trager approach emphasizes the close relationship between body and mind. Through the pleasurable sensory experience of being "Tragered," the body and nervous system learn to relax, which, in turn, allows the muscles to do as well. The body learns to move with greater freedom.

Some chronic back pain sufferers have found Trager work to be particularly effective. The rhythmic, rocking movements facilitate movement in this area that is especially prone to tightness and immobility.

A Trager practitioner will also instruct you in exercises to do at home. Designed to promote self-sufficiency, these exercises reinforce the looseness and flexibility that you should experience with Trager work. Exercises for the low back, for example, might include walking with a little kick, as though you were shaking off a boot, or lying on your back and letting your bent knees flop from side to side.

Craniosacral Technique

Craniosacral technique grew out of the osteopathic tradition of manual medicine. The "cranial rhythm" was discovered in the 1920's by an osteopathic physician, Dr. William Sutherland, and craniosacral techniques were developed and documented by many subsequent osteopaths (D.O.'s) including Dr. John Upledger.



Photo by Beverly Bean, Courtesy of the Upledger Institute

Craniosacral Therapy

Craniosacral technique involves gentle treatment of the entire body but places special focus on the head, including the bones of the skull, the membranes surrounding the head, and the cerebrospinal fluid that bathes the spinal cord and brain. As in Trager work, a light touch is necessary and the practitioner is seen as a catalyst that stimulates and encourages the body's natural healing abilities.

Craniosacral technique is based on the principle that a subtle motion is present in the head and body and that this motion needs to be as free as possible for healthy functioning. Its practitioners believe that, contrary to the traditional medical view that the skull bones fuse at puberty and become fixed in place, these bones are actually not fused and have the capacity for very subtle but necessary motion.

Craniosacral practitioners have found that the cranial bones and tissue expand and contract at a rate of approximately 8-12 times per minute. The practitioner helps the body to release any restrictions in this subtle cranial motion.

Injury causes disturbance of the cranial motion because the force of the injury is not limited to the original site, but instead extends throughout the body. Even when an injury seems to be completely healed and pain is no longer felt, the body may actually be compensating for the restrictions that remain. Over time, this ability to compensate may gradually diminish due to stress, fatigue, or other injuries, resulting in the return of pain.

During a treatment session, the practitioner will rest his or her hands lightly on your body, first palpating the body and head to feel the cranial motion and identify restrictions. Then, while exerting light pressure on the head or body over a period of time, the practitioner will facilitate a natural "unwinding" process that occurs in the fascial structures (connective tissue).

The practitioner may move parts of the body into various positions and exert pressure in different areas as needed to release restrictions. This, in turn, helps the cerebrospinal fluid to circulate more freely and improves mobility of the skull bones and the sur-

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rounding membranes. Far-reaching positive effects may be noted in areas of the body other than those treated directly.

Craniosacral technique is so subtle that it may feel as though nothing is happening you notice a sense of relaxation. Deeply rooted strain patterns, unresolved from previous injuries, can dissolve, layer by layer, over weeks of treatment sessions.

This technique can be very effective for chronic pain problems. As with most manual therapy techniques, it is practiced by D.O.'s, M.D.'s, dentists, chiropractors, physical therapists, and massage therapists.

This concludes *Lifeline's* series of three articles on manual therapy. Because of space limitations, there are quite a few manual therapy approaches that we have not been able to cover in this series, including Feldenkrais Method, Alexander Technique, Rolfing, and Applied Kinesiology. We hope this article will encourage our readers to explore a variety of manual therapy techniques since they are an increasingly popular and often effective treatment option for those with chronic pain.

About the Author: Barbara Cohn is a freelance writer and certified Rolfer. She wishes to acknowledge the technical assistance of the following practitioners in preparing this article: Ted Miller, D.O., Silver Spring, Md.; Royal Schomp, Trager Practitioner, Silver Spring, Md.; and Bonnie Wilner, massage therapist, Bethesda, Md.

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