



Tony Cordoza/Stone

Visceral Manipulation: A Powerful New Frontier In Bodywork

This modality will let you get more done in less time, and with less effort. By Jeffrey Burch

Two keys to effective bodywork

of any kind are top-flight assessment skills and powerful manual skills. Visceral manipulation, developed by French osteopath Jean-Pierre Barral, offers both. Knowing precisely where to work and in what order to do things keeps the session on track. Precise interventions mean quick results with less effort.

Many powerful osteopathic methods, including strain/counterstrain, CranioSacralSM Therapy and Zero Balancing[®], have been incorporated into massage practice. In the second half of the 20th century, osteopathic manual practice has seen a great flowering in Europe, particularly in France. At the vanguard of this flowering is Barral's work on visceral manipulation.



The Role Of Organs

We are accustomed to the idea that spinal dysfunctions can produce organ dysfunctions by altering the flow of messages in the nerves to the organs. Barral has demonstrated this flow of information to be a two-way street, with organ problems profoundly affecting the spine. All of the internal organs are connected more or less directly to the spine by their support membranes. Tension in the organ-support membranes will pull the spine out of line, requiring muscular compensation. While richly innervated in other ways, the support membranes of the organs have very few of the kinds of nerves that report pain (nociceptors), so we are rarely aware of the problem in or near the organ until the ability of the musculature to compensate for the problem is exceeded, announced by pain experienced in the musculoskeletal system.

Here is an example: The heart is enclosed in layered pericardial membranes—the outermost of which is suspended by ligaments attaching it anteriorly to the sternum, most strongly at the levels of the third and fifth ribs, and posteriorly to all of the vertebrae C₄–T₄. In a whiplash injury, the heart, a dense organ, is suddenly accelerated, injuring its suspensory ligaments. These ligaments have no nociceptors, so we do not know they are injured. In the following weeks, the injured membranes become fibrosed as they heal, putting tension on the lower cervical and upper thoracic vertebrae. This is a major reason why the neck usually feels worse weeks after a whiplash than it does immediately after the injury, and why work on the painful areas of the neck tends not to produce lasting results. Visceral manipulation has methods to restore the span and elasticity of the pericardial support ligaments. Clinical experience has shown that this tends to make rapid and lasting improvement in neck pain following whiplash.

Similarly, pneumonia and other respiratory illness leave contractures and adhesions in the pleural membranes surrounding and supporting the lungs. At the superior end of the lung, the parietal pleura are suspended by a complex of mem-

Editor's Note: The organs and their support structures are delicate and highly reactive. Visceral manipulation must be done with both delicacy and precision. Attempt visceral manipulation only after adequate training.

branes from the transverse processes of the cervical vertebrae. Pleural adhesions and contractures will produce cervical displacement, restriction and pain. In addition, these tensions affect the scalene muscles in a way well placed to impinge on the brachial plexus and vasculature. History of severe respiratory illness is a known risk factor for carpal tunnel syndrome and other upper limb repetitive strain injury (RSI). Sometimes these injuries occur in the absence of an activity pattern normally associated with RSI, further implicating the pleural restrictions.

These two examples have focused on the influence of visceral restrictions on musculoskeletal function and dysfunction. In therapy sessions, visceral manipulation practitioners proceed by waking up proprioception. During episodes of crisis, including injury, illness and emotional stress, the body makes the best available adaptation for survival. After the acute event these adaptations often limit the body's further ability to adapt. Applied during a crisis, visceral manipulation could easily overload the body with information. After the crisis has passed, visceral manipulation is highly useful, inviting the body to reevaluate adaptations made in crisis so that new solutions allowing greater flexibility of response can be found. A political analogy is the suspension of civil liberties during wartime, and the concerted effort often required to restore those liberties in the following peace.

Treatment Methods

Visceral manipulation uses variations of three primary osteopathic treatment methods: functional methods, recoil and induction.

Functional Methods

At the heart of functional methods is the concept of first barrier. This is range of motion testing with a difference. Instead of moving to end range, functional methods start at neutral, moving slowly to the first slight increase in effort required to move the body part. In its most basic form, functional method is holding the body part at this first barrier. This wakes up the proprioception in this area, offering the body an opportunity to reevaluate and reorganize. Local release is felt in seconds, and can be observed to propagate to distant parts of the body through the connective tissue web.

If a body part is mobility tested in two directions, such as cephalad/caudad, one direction will be found more easily than the other will. Functional treatment may be applied to the first barrier in either the direction of ease or the direction of effort. Treatment in the direction of ease is usually the more powerful, although follow-up with treatment in the direction of effort is usually profitable. Occasionally, a tissue responds best to treatment in the direction of effort first.

Try this exercise: With one hand, support your other hand so the wrist is in an easy neutral position. Moving extremely slowly, move the wrist into first adduction and then abduction, just until the first increase in effort to move it is found. Note which direction is easier. Move the wrist again very slowly into the direction of ease, just to the first barrier. Your job is now done; it is the body's turn to reorganize. Within a few seconds you will feel a release. Now retest the ease of motion in

Origins Of This Technique

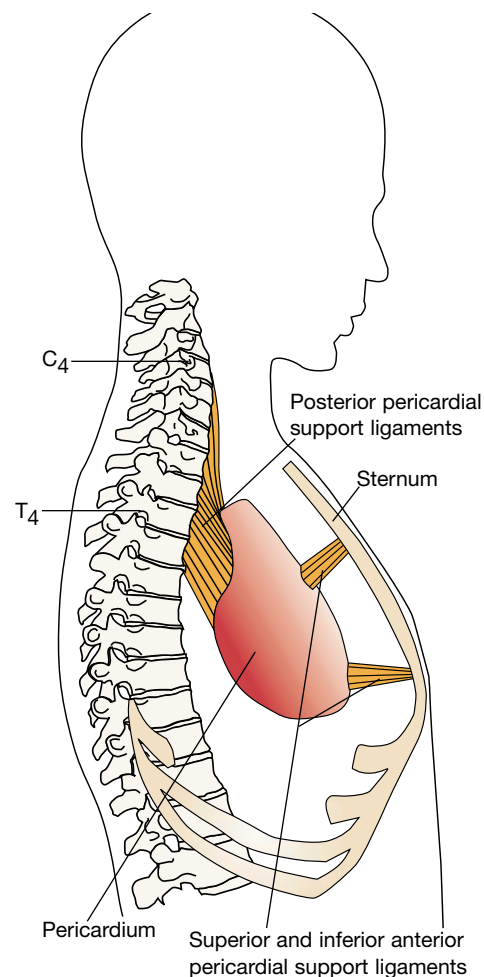
One of the early back pain patients of Jean-Pierre Barral (R.P.T., D.O.) returned to his office much improved. Barral asked him which manipulations had helped him. The patient answered, "Oh, it wasn't you. I went up into the foothills of the French Alps, and saw a folk healer. She pushed on something in my belly, and it helped a lot."



Barral was initially skeptical, but after the fourth patient came to him with the same story, he went back to his anatomy books to try to see how work in the abdomen could have affected the spine. What he found was that every internal

organ is directly or indirectly anchored to the spine by membranes and ligaments.

As he began to apply osteopathic soft tissue methods to these organ support membranes, the therapeutic results were astonishing. Barral is very precise and demanding in his work, and will not release a new procedure until he has seen it work 200 to 300 times in his practice. He validated the procedures he was developing with fluoroscopy, ultrasound and other imaging methods. The French government put substantial research money into portions of Barral's research. Barral has brought what he learned in the viscera back to other soft tissues, so that visceral manipulation now encompasses work directly or indirectly influencing most body tissues.



How Pericardium Strains Affect The Neck

The pericardium is suspended posteriorly by a continuous network of ligament from the bodies of all vertebrae C₄-T₄, and anteriorly to the posterior surface of the sternum by two ligamentous local thickenings of the mediastinum at the levels of the third and fifth ribs. Pericardial support ligament strains produced by whiplash or other impact injuries are frequently expressed as low cervical and upper thoracic stiffness and pain.

both adduction and abduction. Usually not only the direction you treated will be improved, but the other direction as well. If the release was not felt, try approaching the barrier even more slowly and gently. The usual error is to work too hard. If the body part is held *beyond* the first barrier, then the body's defenses are engaged and release does not occur. Precisely applied low force is easy on both client and practitioner, which is one of the beauties of visceral manipulation.

More complex variations of functional methods are frequently used. Extending the wrist example just used, the wrist can be mobility tested in flexion/extension, and supination/pronation as well as adduction/abduction. The wrist can be treated to a direction-of-ease-first-barrier concurrently in all three planes. This use of multiple planes is called *stacking*.

Recoil

Another major therapy method used in visceral manipulation is called *recoil*. In this method the body part is stacked to a direction of effort, but a little beyond the first barrier, so there is not an immediate release. Then as the client initiates an inhale, the practitioner's hands are removed as quickly as possible. The therapeutic results of recoil tend to be less lasting than the results of functional methods, but can be useful to open up a complex or very tight pattern to make it accessible to functional methods.

Induction Of Motility

Each organ has a regular intrinsic oscillatory motion that follows lines of embryologic migration. This motion resembles, but is distinct from, the craniosacral rhythm. As an example, the kidneys first form in the pelvis, then migrate superiorly to their mature position posterior to the peritoneum and inferior to the liver and the spleen. At 7.8 cycles per second, the kidneys retrace the end stage of this migration, back and forth. This regular oscillatory motion is termed *motility*, and should not be confused with peristalsis, which is also sometimes referred to as motility. The active phase of motility is in the direction of the original embryologic migration; the return is passive relaxation. Motility may become limited in range or amplitude, either by restrictions preventing the motion of the organ or by devitalization of the organ.

Treatment by *induction of motility* is accomplished by passively following an organ to the end of its easier direction, then briefly and very gently encouraging the organ to go a little farther. Similar to functional techniques, it is useful to induce the motion in the direction that it least likes to go, after first inducing the preferred direction. Both directions are then reevaluated.

Two organs can also be induced to move synchronously. The kidneys already mentioned serve as an important example. The kidneys lie adjacent to the spine. If the kidneys are moving out of phase, with one moving inferiorly while the other moves superiorly, this side bends the spine every 3.9 seconds. This small motion is like water drop torture for the spine, resulting in a repetitive motion injury.

A unique and critical example of motility is the motion of the transition zones from one organ to the next along the alimentary canal. Here, the motion is rotary oscillation, clockwise and counterclockwise. Sphincters and other transitions that

are not working well will have a counterclockwise preference. Those not working at all will lose their rotary oscillatory motility altogether. These alimentary transition zones have rich autonomic innervation and are powerful entry points into the body. If one has limited time to work on a client, manipulation of these transition points is the treatment of choice.

Anatomy And Palpation

The study of visceral manipulation is anatomy intensive. Knowing the exact contour and location of each organ and its suspensory structures is essential for effective work. This precision is complicated by frequent anatomic variation. No two people are proportioned exactly alike, and the differences within the body may be greater than the differences seen on the surface of the body. Therefore, finely honed palpation skills are an essential complement to anatomic knowledge.

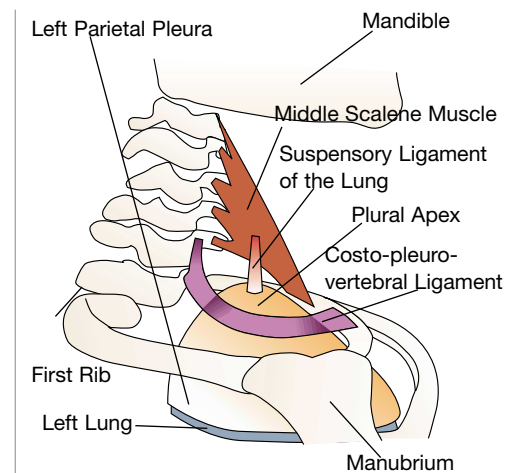
Assessment Methods

There is no one assessment method in any therapy that will tell us everything. As therapists, it is essential for us to have more than one assessment method to cross-reference our perceptions. Several assessment methods are used in visceral manipulation; the most frequently used are listening, manual thermal diagnosis and mobility testing, which are summarized below.

Listening

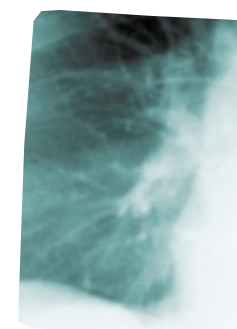
Imagine a picture frame across which is stretched a uniform sheet of latex. If you push your hand into the center of this sheet, it will go straight in. If an area of the latex to one side is thicker and less elastic than the rest of the sheet, then when you push into the center your hand will be drawn toward the less elastic area. By this means, briefly and lightly contacting the connective tissue matrix of the body will lead you to areas of restriction. This method works even in preserved cadavers, and while this physical depiction of listening describes what the hand does, there is more to listening than just this property of the connective tissue web. There are two major divisions within listening—general listening and local listening.

General Listening: In general listening, the practitioner stands behind the client and places a hand lightly on top of the head. Within three seconds, the body will deflect slightly in some direction. This leads the practitioner in the direction of the primary restriction in the body. In addition to noting the direction of inflection, the practitioner notes where in the body the direc-

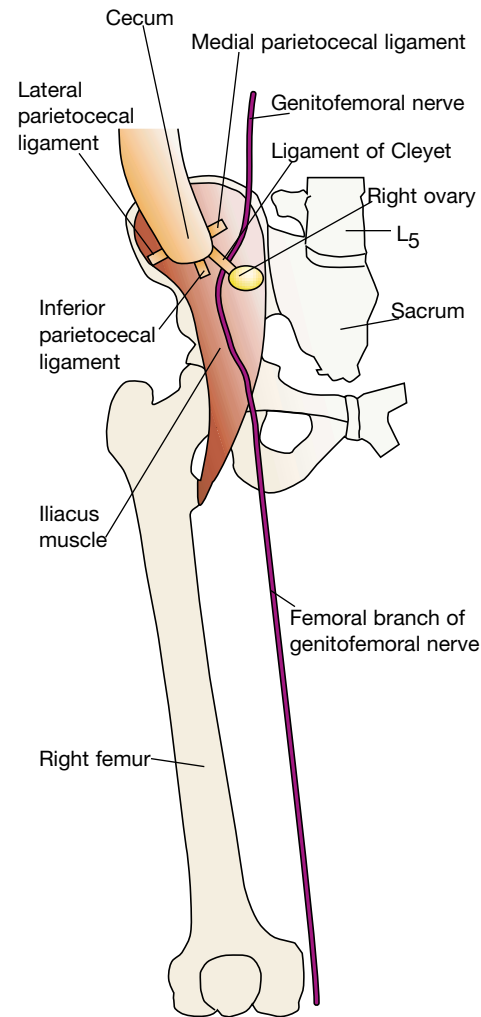


How Pleural Dome Suspension Affects The Neck

Pleural dome suspension, oblique view. The apex of the parietal pleura is suspended in several ways. One of these is the costo-pleuro-vertebral ligament, which attaches to the first rib then runs posteriorly as a local thickening of the parietal pleura of the pleural dome to attach anteriorly on the transverse processes of the sixth and seventh cervical vertebrae. The pleural dome is also suspended by the suspensory ligament of the lung, which connects the apex of the pleural dome to the inferior surface of the middle scalene muscle. Both of these pathways transmit pleural strains to the cervical vertebrae.



Knowing the exact contour and location of each organ and its suspensory structures is essential for effective work.



How Colon Suspensory Ligament Tension Affects The Knee

Cecal suspensory ligament tension can produce phantom medial right knee pain. Sixty percent of women have a ligament of Cleyet attaching the right ovary to the cecum. Tension in the ligament of Cleyet can compress the femoral branch of the genitofemoral nerve, producing medial right knee pain in the absence of objective signs of knee dysfunction.

tion of motion initiates—neck, upper abdomen, ankle, etc. The combination of direction and level point to the area on which needs to be worked.

Local Listening: If there is a restriction in the upper part of the left pleura, and the palm of the practitioner’s hand is laid gently on the manubrium, the hand will be pulled to the left. If the hand is then moved to the left, it is possible to triangulate to the exact site of the restriction.

Each person’s body has more than one restriction, creating the perennial question in bodywork: “Which one do I work on first?”

If the practitioner’s hand is next placed a palm width lower on the sternum, a pull may be felt in another direction to a different restriction. Moving palm width by palm width down the anterior midline, several restrictions may be found. Methods beyond the scope of this article allow these several restrictions to be compared, pair-wise, to locate the restriction that should be worked on first to achieve the most benefit for the whole body.

Mobility Testing

In the example above, a restriction was discovered in the upper left chest, but this does not tell us if the restriction is in ligaments associated with a rib, in the parietal pleura, visceral pleura or parenchyma of the lung. The next step is to manually test the mobility and elasticity of tissues in the area identified by listening to find which tissue is restricted.

Manual Thermal Diagnosis (MTD)

The human body radiates heat (infrared) differentially. For example, the brain and the liver, with their high metabolic rates, produce more heat. Pathology also makes changes in heat emission, either hotter or colder. The human hand is a surprisingly good detector of heat differences, able to distinguish differences of less than one one-hundredth of a degree between two objects. When the hand is in contact with any surface, this fine heat differentiation is masked in our perception by tactile awareness. Fine heat discrimination is best done feeling radiant heat about 10 centimeters from the body. Interestingly, when the differences in temperature are small, the hand will not be accurate about which of two objects is actually warmer; at this fine level of discrimination, perception of heat or cold is accurate only as a recognition of difference. If the hand is held in one spot over the body, heat builds up between the hand and the body, and perception is obscured. Thermal scanning for the heat signatures of restrictions is best done with the hand moving over the body at a rate of about 0.5 meters per second. MTD is quick, and provides excellent backup for both general and local listening.

The French government has put substantial research money into Barral’s MTD, leading to the development of an instrument—the Ortoscan—that validates and duplicates the results of MTD. The hand is also sensitive to wavelengths somewhat longer than infrared, which accounts for the effectiveness of this method through clothing that would be insulating to heat alone.

Clinical Examples

There is a frequent variant in 60 percent of women of an extra ligament attaching the cecum to the right ovary. This “ligament of Cleyet” lies over the femoral branch of the genitofemoral nerve, so that tension in this ligament will appear as right medial knee pain, most often occurring at puberty as the pelvis and reproductive organs grow rapidly. No amount of work on the knee or spine will produce a lasting result if there is nerve impingement between the cecum and the ovary. Visceral manipulation will quickly make this correction, often in as little as one visit.



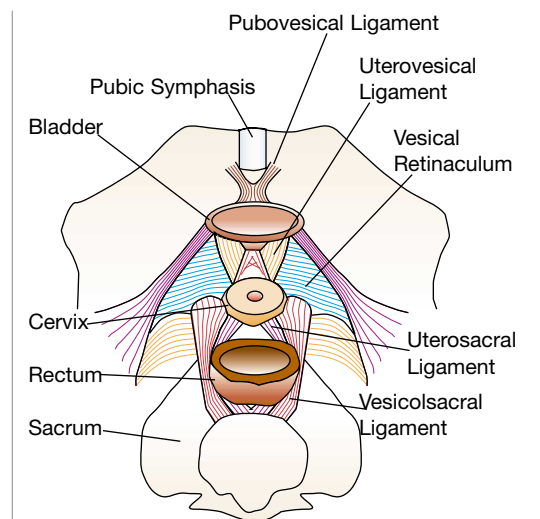
Extensive clinical experience shows rapid visceral manipulation results with a wide range of both visceral and biomechanical complaints.

Earlier in this article, two kinds of visceral dysfunction affecting the spine were mentioned. Visceral dysfunctions affect the rest of the body, as well. For example, the ascending colon is anchored in part to the parietal peritoneum overlying the right iliacus muscle. Tension in the suspensory ligaments of the ascending colon shortens the underlying muscle contributing to chronic hip flexion and external rotation. With such a visceral restriction, working on the musculature alone will not make a lasting change in this hip relationship.

The bladder is another example, attached by a complex of ligaments to both sides of the pubic bone, the sacrum and the obturator membranes, and by extension from them to the head of the femur. Tension in bladder support membranes is well placed to create and maintain many variations of pelvic, sacral and hip distortions.

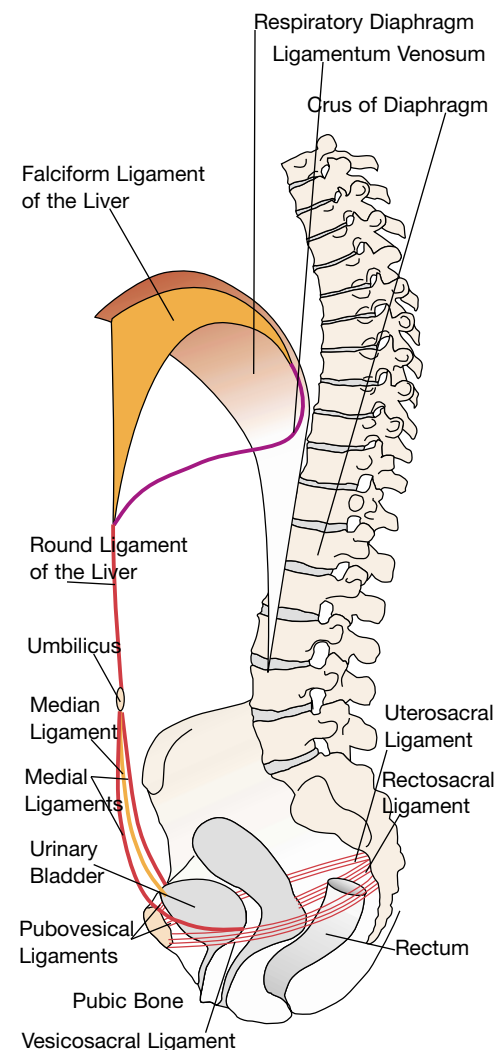
Continuing superior from the bladder is a complex of three bladder support ligaments, the median and medial ligaments, lying on the posterior surface of the anterior abdominal wall. These three ligaments converge at the umbilicus to continue as the round ligament into the falciform ligament and ligamentum venosum, which together suspend the liver from the respiratory diaphragm. Along this pathway, tension in a ligament attaching the bladder to the sacrum can contribute to respiratory diaphragm tension. In this situation, full resolution of the diaphragmatic tension requires balancing the bladder support ligaments.

While little scientific research on visceral manipulation has been published, extensive clinical experience shows rapid results with a wide range of both visceral and biomechanical complaints.



Pelvic Organ Support Ligaments (From Above)

Suspensory ligaments of the pelvic organs. The pelvic organs are attached by a system of ligaments to the pelvic bones and sacrum. Asymmetrical tensions in these ligaments will produce pelvic and sacral misalignment.



Pelvic Organ Support Ligaments (Side View)

Pelvic organ support ligaments. The uterus, bladder and rectum are suspended in a ligamentous hammock connecting the pubic bone and the sacrum. This hammock is a peritoneal partition between the abdominal and pelvic cavities. Thickened folds in this partition are named as specific ligaments.

Superiorly and anteriorly the bladder is suspended by the median and two medial ligaments that run along the posterior surface of the anterior abdominal wall to converge at the umbilicus. Superiorly from the umbilicus the round ligament of the liver continues into both the falciform ligament and the ligament venosum to suspend both the liver and the urinary bladder from the respiratory diaphragm.

Training

Jean-Pierre Barral has published seven books and a two-volume video on visceral manipulation. These are invaluable aids to learning this technique. In North America, instruction in visceral manipulation is offered in a series of intensive educational workshops, each lasting three or four days. Instruction and feedback from instructors and teaching assistants in these workshops, and in study groups between workshops, is essential for assimilation of the complex concepts and practice of visceral manipulation.

Conclusion

The beauty of visceral manipulation is the speed and low-effort efficiency with which it can be done. Barral sees 25 to 30 patients a day, and still has time to conduct research, teach and be with his family. Learning visceral manipulation takes time and concerted work. Practicing visceral manipulation and seeing its quick and far-reaching results is pure joy. ❧

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Jeffrey Burch is a certified Rolfer® practicing in Eugene, Oregon. He has been integrating visceral manipulation and CranioSacral Therapy into his work for five years. Burch teaches introductory CranioSacral Therapy courses and leads study groups in both CranioSacral Therapy and visceral manipulation. He is a visceral manipulation instructor in training for the International Alliance for Healthcare Instructors. Burch can be reached at 541-689-1515, or via E-mail at: darkwood@rio.com.

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