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Naturopathic Manipulative Treatment of the Sacroiliac Joint

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Please don’t worry about taking notes. Just pay attention. Notes provided in disc or book are very complete and you can refer to them later for reference.
Naturopathic Manipulative Treatment – What is it?

• Is it the act of “putting a bone back in place”?
• What does the “pop” mean and how relevant is it?
• Is it a therapeutic process imposed on a joint or other soft tissue, either directly, or using indirect levers, such as bone?
• Is it the restoration of function to dysfunctional soft tissue?
• Does it “break into” and disrupt the vicious cycle known as the “chronic biomechanical stress pattern (CBSP)”
Is it the act of “putting a bone back in place”?

The position of one object is always relative to that of another.
The “pop” is a cavitation response. (gas being drawn out of tissues into joint) It can be elicited with simple stretching, soft-tissue techniques or the grade V manipulative thrust. Though the source of endless placebo effects, it is not magical.
“Restoration of normal positional and functional relationship”

• This is more inclusive than just putting a “bone back in place” and more accurate.

• Examples:
  – Reduction of a hiatal hernia
  – Change of positional relationship between the two bones of a joint (usually temporary)
  – Turning a fetus in pregnancy
  – Restoration of a torsed ovary to normal
Which bone is out of place?
Restoration of normal positional and functional relationship

• This positioning could be compensation for:
  – Stress fracture
  – A lifetime of asymmetrical alignment (CBSP – Chronic Biomechanical Stress Pattern)
  – A specific injury (e.g.: untreated adhesive capsulitis of the glenohumeral joint that has a poor prognosis due to being ignored too long)
  – Congenital malformation of vertebra or soft tissue
  – Therefore, position can never be treated in isolation, without regard to other factors.
Naturopathic Manipulative Treatment – What is it?

• Restoration of normal positional and functional relationship
Is it a therapeutic process imposed on a joint or other soft tissue, either directly or using indirect levers, such as bone?

- Therapeutic Process: Massage, Ultrasound, Cryotherapy, Heat, Hydrotherapy, etc.
- Definition of Therapeutic (Tabors): “Having medicinal or healing properties”
- In Practical Terms: Increases circulation, removal of waste products (including pain producing metabolites), and normalizing function (movement)
- Answer is definitely “yes”.
Naturopathic Manipulative Treatment – What is it?

• Restoration of normal positional and functional relationship

• A therapeutic process imposed on a joint or other soft tissue, either directly, or using indirect levers, such as bone
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• Direct Examples:
  – Reducing adhesions between tissues
  – Facilitation of Lymphatic drainage by massage (relatively speaking, it is direct)

• Indirect Examples:
  – Contact on the PSIS of the ilium to restore normal motion within the sacroiliac joint.
  – Facilitation of Lymphatic Drainage using the “Thoracic Pump” technique
Naturopathic Manipulative Treatment
– What is it?

• Restoration of normal positional and functional relationship

• A therapeutic process imposed on a joint or other soft tissue, either directly, or using indirect levers, such as bone

• Restoration of function to dysfunctional soft tissue
Restoration of function to dysfunctional soft tissue

• Examples:
  – Reduction of adhesions between fascia that cause pain on function of muscles
  – Forced stretching of contracted muscle or ligament, actively or passively
  – Vertebral manipulation that restores function to a joint capsule, muscle, ligament, etc. (combination of above two)
  – Reduction of a hiatal hernia that enables normal swallowing of a bolus.
Manipulation is a Multidisciplinary Art

• Who Uses Manipulation
  – ND’s/NMD’s
  – DC’s
  – MD’s
  – DO’s
  – PT’s – especially orthopedic specialists
  – Potentially many others – Dentists, Nurses, Physician Assistants, LMT’s, Naprapaths, etc.
  – Nobody “owns” Manipulation

• It is highly recommended that ND’s interested in manipulation expose themselves to a variety of approaches to the art and science.
Naturopathic Manipulative Treatment – What is it?

- Restoration of normal positional and functional relationship
- A therapeutic process imposed on a joint or other soft tissue, either directly, or using indirect levers, such as bone
- Restoration of function to dysfunctional soft tissue
- Disrupts “vicious cycles” of tissue tension
Disrupts “vicious cycles” of tissue tension

Stretching out contracted tissue while enhancing circulation, removal of pain-producing metabolites, and reducing tissue adhesions has a neurological effect that, along with exercise and other active activities helps “reset” the CBSP.
Quotes and Paraphrases from John Bastyr, N.D.

• “Manipulation is the single most important Naturopathic Modality because it allows you to touch your patient.” In JBCNM Friends and Patients Newsletter Interview.

• “Manipulation dates back to the very beginning of the Naturopathic Profession.” Spoken directly to me.

• “Use everything (all therapeutic tools)” Dr. B’s MO
What Makes Manipulation Naturopathic?

• In some states there is a political definition – e.g. California – no high velocity, low amplitude, but imprecisely defined (and really impossible to define since terms are relative).

• NMT Defined (Politics Aside)
  – Developed within the ND profession and adopted by profession in practice
  – **Follows Naturopathic Philosophy**
  – Inspiration for technique can come from any source, including other professions. But it should be introduced to the profession in terms of ND (our) philosophy and technique.

• ND’s should never claim to use any system of manipulation belonging to another school of medicine unless they have a dual license in that profession, or unless that type of manipulation is specifically allowed under the Naturopathic licensing law of that state. Our manipulation is inclusive of everything and is sufficient unto itself.

• If a state law excludes some NMT techniques, they are still part of our training and practice and should be included in the law at the earliest possible date.
Follows Naturopathic Philosophy

• Restores normal homeostatic function
• Removes obstacles to the above
• Creates less problems than it relieves – First, do no harm.
• Facilitates the Vis Medicatrix Naturae
• Wholistic/Holistic - Views and treats all body tissues as a whole. Not simply aligning bones.
• Goal is long term results – no pain, function.
• Find and treat the cause
• Be realistic – consider the overall biomechanical stress pattern. How to affect it? Counseling, exercise, etc.
  – Can only be affected by lifestyle changes and new habits.
Future Goals for NMT

• Broad “ownership” and use of this important modality within the profession.
• Forming a growing nucleus for the Naturopathic Manipulation community
• “Core” Modality, Specialization, or both.
• All ND’s should use the NMT techniques with which they feel competent and confident.
  – Does not necessitate grade V to be effective
NMT Defined by Practice

- Treats all tissues - ex: joint capsule, fascia, viscera, muscle, lymphatic, ligament, etc.
- Recognizes Cyriax’s Principle of bones being “inert” levers to treat soft tissue (in most cases)
- Does not just “pop” joints. Treats soft tissue.
- Prescribed as a therapy
- Treats the “cause”
- Uses lifestyle modification and exercise as a primary and important treatment
Guidelines for Prescription

- Not based on whether or not joint “pops”
- Prescribed as a therapy, using clinical judgment
- Not continued when not *objectively* improving, except when palliation is stated goal
  - Is there anything wrong with palliation? Are drugs palliation?
  - Russian use of massage Rx for CHF and other conditions
- Used together with other treatments for optimal result.
- Always treat soft tissue (even when doing osseous technique).
- Create less stress than you relieve. (First, do no harm)
- Use a variety of techniques as appropriate. Do not only use high velocity, low amplitude thrusting in isolation.
Functional Anatomy of the Sacroiliac Joint
The Sacrum is the Keystone in the Roman Arch

Biomechanical Center of Gravity of the Human Body = Approx. 2” anterior to sacral base.

From: The Physiology of the Joints, Volume 3 by I.A. Kapandji – Published by Churchill Livingstone (except arrow-box and blue circle - mine)
Sacral Nutation and Counternutation And Joint Topography

From: The Physiology of the Joints, Volume 3
by I.A. Kapandji – Published by Churchill Livingstone
Nutation and Counter Nutation

From: The Physiology of the Joints, Volume 3 by I.A. Kapandji – Published by Churchill Livingstone
The Sacroiliac Ligaments

From: The Physiology of the Joints, Volume 3 by I.A. Kapandji – Published by Churchill Livingstone
From: The Physiology of the Joints, Volume 3 by I.A. Kapandji – Published by Churchill Livingstone
More on Nutation

From: Orthopedic Physical Assessment by David J. Magee
Published by Saunders/Elsevier
Counter nutation

From: Orthopedic Physical Assessment by David J. Magee – Published by Saunders/Elsevier
Iliac Motions

• Flexion: The position of being rocked backward as occurs in flexion of lower extremity or in swing phase of gait or hip flexion.

• Extension: The position of being rocked forward as occurs in the stance phase of gait or hip extension.

• Gyroscopic Motion: When the sacrum nutates on one side, it counter nutates on the other. The ilum flexes on the side of nutation and extends on the side of counter nutation, thus moving gyroscopically during normal walking and gait.
Essential Exam

- **ROM of TL Spine** – The “vital signs” for the orthopedic exam
- **Sacral Compression – Base and Apex**
  - Base pain tends to indicate involvement of the L5-S1 disc
  - Apex pain tractions LS ligaments and tends to indicate sprain of these ligaments. Focuses on ligaments of posterior elements of vertebrae.
- **Yeoman’s Test, Hibb’s, Pelvic Rock, Gaenslens** – Localizes lesion in SIJ
- **Patrick Fabre** – Localizes lesion in FAJ.
- **SLR and Kernig’s Test** – Indicates Disc involvement or other source of aggravation from tractioning nerve roots and spinal cord, respectively.
- **Valsalva Test and Dejerine Triad** (cough, sneeze, strain) – Indicates elevation of intrathecal pressure aggravates lesion
- **Palpation of Sciatic Nerve in Notch** – Localizes lesion to nerve.
- **Static prone palpation of SIJ Joint** Positioning is empirically the best assessment of SIJ motion in MY experience.
Elements of the Posterior Torsion Fixation Pattern, using left as example (LPTFP – Left Posterior Torsion Fixation Pattern) – Lesions named after direction of restricted motion

- Left iliac extension restriction (i.e. left ilium is unable to move into normal extension)
- Left sacral counter nutation restriction
- Right sacral nutation restriction
- Right iliac flexion restriction
Findings in Static Prone Palpation and Side Posture Joint Play Exam for SI Joint Dysfunction

- **Goal of exam is to identify the Posterior Torsion fixation pattern, then treat the fixations within the pattern.**
- **This exam is the best way to determine the fixation pattern.** Traction legs before exam to remove postural distortion. Short leg normally is on side of PT.
- Indicates Iliac restriction against extension:
  - Posterior and/or inferior PSIS
  - Lack of joint play into iliac extension – prone or side posture
- Indicates restriction against sacral counter nutation:
  - Anterior and inferior sacral base corner. Posterior and superior contralateral sacral apex.
  - Side posture lack of joint play for counter nutation (scoop)(see NMT technique slide)
- Indicates restriction against sacral nutation:
  - Posterior and superior sacral base corner
  - Lack of joint play into sacral nutation, mainly side posture
- Indicates restriction against iliac flexion.
  - Anterior and superior PSIS (especially in relation to the other)
  - Restricted joint play into iliac flexion
- Side posture joint play can also help assess the presence of restriction.
  - In side posture before manipulation, when rocking, motion can be assessed.
The Left Posterior Torsion Pattern: (right is opposite side for all findings listed)
PI – L PSIS, AI- L Sacral Base, PS – R Sacral Apex, Posterior R Sacral Base
Manipulative Technique

• Energy work, muscle energy
• Massage (effleurage, petrissage, friction, tapotement, etc.)
• Inhibition, Neuromuscular – Parallel to fibers (slower), cross fiber (less slow).
• Passive mobilization – **rocking**, ligamentous technique (low velocity, high amplitude), Grade I – IV manipulation (within physiologic range of motion, Grade V Manipulation (High velocity, low amplitude thrust into extra-physiologic range of motion)
• Adhesion release, deep tissue work, visceral technique
• Others: Bowen, Orthobionomy, Positional release, etc.
NMT
Combines all of these into a fluid and dynamic, wholistic single treatment.
Soft Tissue Treatment of SIJ

• Whenever applying soft tissue techniques, think of treating all areas linked to primary problem by soft tissue connections. This usually means treating the adjacent area, as well.

• In the SI area, primary areas are lumbosacral spine including gluteal area.

• Secondary or adjacent areas include thoracic spine and thighs. Also think of weight bearing dynamics of SIJ. This can affect even more tissues because the biomechanical center of the human body is in this area.

• The same principles apply to Rx Exercise
Soft Tissue Treatments to Use On SIJ and Related Areas. Treat the cause.

- Massage techniques
- Inhibition techniques to lumbosacral muscles, gluteals (including piriformis and obturators)
- Muscle Energy, energy
- Low force manipulation: Rocking, Ligamentous Technique (Naprathmic), Low Grade Manipulation, Articulatory technique
- Adhesion release (Failor/Dunn), deep muscle release
- Etc.
Grade V SIJ Technique

- Nutation of the Sacrum
- Counter nutation of the sacrum
- Iliac Extension
- Iliac Flexion
- Others have been described such as up-slip and down-slip in Osteopathic literature.
Abbreviations Used

- LPTFP/RPTFP = Left or right posterior torsion fixation pattern
- PP = Patient Position
- CH = Contact Hand
- SH = Support Hand
- TD = Thrust Dynamics
- ROM = Range of Motion
- NMT = Naturopathic Manipulative Treatment
Sacroiliac Patterns

• Left or Right Posterior Torsion Patterns, using LPTFP as an example (left posterior torsion fixation pattern. Dynamic (and Static) views
  – Left ilium is restricted against extension (in position of flexion or posterior torsion)
  – Left sacral base restricted against counter nutation (in nutated position)
  – Right sacrum is restricted against nutation (in counternutated position)
  – Right ilium is restricted against extension (In position of extension)
The Fine Points

• Minimize of eliminate torsion to lumbar spine to reduce strain on IVD’s
• Rock = Prethrust mobilization
• Lock = the quick application of tissue traction to end of physiologic ROM without stressing tissue and stabilizing parts not being treated
• Drop = the application of thrust into the specific joint being treated while maintaining tissue traction and stabilizing other structures not being treated
• Diffuse pressure – In soft tissue technique use diffuse pressure instead of focused pressure. That is, use a broad contact to a whole area, while minimizing the specific contact to tissues being treated. Avoid using the points of fingers without applying broad force to adjacent tissues.
• Balance force with finesse.
NMT for LPTFP

1. **Dr. Andre Saine** – Quebec, Canada: “The PSIS, the ‘scoop’, the base, and the ischial tuberosity.”

2. The techniques he taught correspond to facilitating the physiologic movements of the SIJ:
   - Iliac extension move (= the PI Ilium) (left)
   - Sacral Counter Nutation Move (= the scoop) (left)
   - Sacral Nutation Move (= the base) (right)
   - Iliac flexion Move (= the ischium) (right)

3. **Artist vs. Technical Expert** – Two roles in NMT
Iliac Extention Release

• PP: Side posture with side of PT up, traction to torso applied through downside arm and forearm with head resting on arm, none to minimal rotation of L-spine. Head on cushion or table after traction. Downside LE straight and rigid/ Upside LE foot tucked behind knee or out with knee flexed to tolerance.

• CH: PSIS on side of posterior torsion/upside.

• SH: Exerts superior traction on flexed upside elbow, which is grasped by downside hand.

• TD: Rock, Lock, and Drop, keeping lumbar rotation minimal, into iliac extension thrust while stabilizing pelvis and spine with body contact.
Sacral Counter Nutation Release

• PP: Side posture with side of PT down, traction to torso applied through downside arm and forearm with head resting on arm, none to minimal rotation of L-spine. Head on cushion or table after traction. Downside LE straight and rigid/ Upside LE foot tucked behind knee or out with knee flexed to tolerance.

• CH: Sacral apex on side opposite posterior torsion/upside.

• SH: Exerts superior traction on flexed upside elbow, which is grasped by downside hand.

• TD: Rock, Lock, and Drop, keeping lumbar rotation minimal, into sacral counter nutation thrust, while stabilizing pelvis and spine with body contact. “The Scoop”
Sacral Nutation Release

- **PP:** Side posture with side of PT down, traction to torso applied through downside arm and forearm, with head resting on arm, none to minimal rotation of L-spine. Head on cushion or table after traction. Downside LE straight and rigid/ Upside LE foot tucked behind knee or out with knee flexed to tolerance.

- **CH:** Sacral base on side opposite posterior torsion/upside.

- **SH:** Exerts superior traction on flexed upside elbow, which is grasped by downside hand.

- **TD:** Rock, Lock, and Drop, keeping lumbar rotation minimal, into sacral nutation thrust, while stabilizing pelvis and spine with body contact with body contact.
Iliac Flexion Release

- PP: Side posture with side of PT down, traction to torso applied through downside arm and forearm with head resting on arm, none to minimal rotation of L-spine. Head on cushion or table after traction. Downside LE relaxed/ Upside LE foot tucked behind knee or out with knee flexed to tolerance.
- CH: Ischial tuberosity on side opposite posterior torsion/upside
- SH: Exerts superior traction on flexed upside elbow, which is grasped by downside hand.
- TD: Rock, Lock, and Drop, keeping lumbar rotation minimal, into iliac flexion stretch and mild thrust, while stabilizing pelvis with body contact.
Thank you for your attention and participation

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