

American Osteopathic Association Guidelines for OMT for Patients with Low Back Pain

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Lecture Objectives

- State Evidence Based AOA Guidelines for OMT for Patients with Low Back Pain (LBP)
- Compare and contrast various physician guidelines for manipulation of patients with LBP
- State the effect of these guidelines on clinical practice and reimbursement
- Code for OMT appropriately in clinical practice

Multiple EBM Sources Recommend Spinal Manipulation for Patients with Acute and Chronic LBP

- Cochrane Systematic Reviews
- Institute for Clinical Systems Improvement
- AHRQ National Guidelines Clearinghouse
- Systematic Reviews
- Meta-analyses
- Professional Societies (i.e., ACP, APS, AOA, AAFP, Dept. of Defense)

Cochrane Review 2007

- 39 studies (5486 patients) met the selection criteria
- Acute and Chronic low back pain
- Spinal manipulative therapy (SMT) is as effective as, but not better than standard treatments
- Bottom line: SMT is an option

American College of Physicians and American
Pain Society
AHRQ NGC 2007

- For patients who do not improve with self-care options recommend:
Spinal manipulation for acute, subacute or chronic low back pain
- Weak recommendation, moderate-quality evidence

Manual Medicine Practice Recommendations

- If you manipulate, re-evaluate in 3-7 days
- Re-treat as indicated by findings
- Re-evaluate progress at 1 month
- Refer to appropriate specialist if symptoms or signs worsen

Manual Medicine Practice Recommendations

- Workers compensation
- After 1 week, initiate manual treatment
- Reassess weekly
- Stop passive therapy after 1 month
- Get workers back to work by 3 months



Office of The Army Surgeon General

Providing a Standardized DoD and VHA Vision and Approach to Pain Management to Optimize the Care for Warriors and their Families

**Pain Management Task Force
Final Report
May 2010**

Recommendations of US Military Pain Management Task Force 2010

4.2.2 Osteopathic Manipulation

Leverage embedded osteopathic and physical therapy resources in the provision of manipulation therapies for musculoskeletal pain.

4.2.2.1 Support osteopathic manipulation in staff clinics.

4.2.2.2 Survey Active Duty Osteopathic Physicians and manually trained Physical Therapists to understand the uses, practices, and barriers of manual medicine.

4.2.2.3 Implement and support Osteopathic Manipulation Graduate Medical Education during primary care and psychiatry residency programs to utilize and continue developing current Army resources.

4.2.2.4 Implement and encourage the use of osteopathic manipulation (or manual medicine) in theater.

4.2.2.5 Incorporate osteopathic manipulation therapy referrals into case management in Warrior Transition Units.

Red Flags

- Age <20 or >55
- Trauma
- History of Malignancy
- Associated Constitutional Symptoms
- Progressive Course
- Neurologic Deficits

Red Flags

Refer to ER

Cauda Equina Syndrome

- Sudden onset or otherwise unexplained loss or changes in bowel or bladder control (retention or incontinence)
- Sudden onset or otherwise unexplained bilateral leg weakness
- Saddle numbness

Red Flags

See within 24 hours

- Fever 38°C or 100.4°F for greater than 48 hours
- Unrelenting night pain or pain at rest
- New onset (less than six weeks) of progressive pain with distal (below the knee) numbness or weakness of leg(s)
- Leg weakness
- Progressive neurological deficit

Red Flags

L-Spine x-rays

- Unrelenting night pain or pain at rest
- History of or suspicion of cancer
- Fever above 38°C (100.4°F) for greater than 48 hours
- Immunosuppression
- Chronic oral steroids
- Osteoporosis
- Clinical suspicion of ankylosing spondylitis
- Neuromotor or sensory deficit
- Serious accident or injury (fall from heights, trauma, motor vehicle accident)

Manual Medicine for LBP

Clinical Outcomes

REDUCED

- Pain
- Work loss
- Disability and impairment
- Medication use
- Physical therapy visits
- Hospital days
- Costs of care

INCREASED

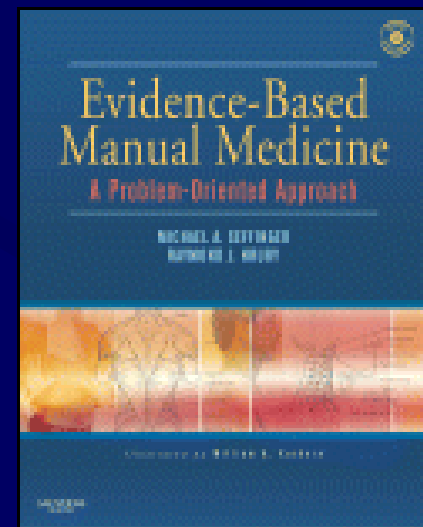
- Patient satisfaction

Six Other Countries' National Health Policy Guidelines Recommend Spinal Manipulation for Acute LBP

- United Kingdom
- Switzerland
- Sweden
- New Zealand
- Germany
- Denmark

First EBM MM Book 2007

- Seffinger and Hruby
- Evidence Based Manual
Medicine: A Problem Oriented
Approach
- Saunders/Elsevier



| Evidence Level | Recommendation | References |
|----------------|---|---|
| A | Manual treatment for patients with acute or chronic mechanical low back pain is as effective as standard treatments | Assendelft 2003 ³¹ ; 2004 ³² http://www.cochrane.org/cochrane/revabstr/AB000447.htm |
| A | Manual treatment is recommended for adult patients with mechanical low back pain. | ICSI 2004 ³³ ; (Grade I; Classes A, M, R) http://www.icsi.org/knowledge/detail.asp?catID=29&itemID=149 |
| A | Manual therapy provides more effective short-term pain relief for patients with acute or subacute low back pain and better than a placebo treatment for patients with chronic low back pain | van Tulder 2000 ²⁷ ; Bronfort 2004 ¹⁹ |
| A | Spinal manipulation is more effective for patients with LBP of less than 3 months duration. | Ferreira 2003 ³⁸ |

EBM OMT Review Article

Earley BE, Luce H. An introduction to clinical research in osteopathic medicine. Prim Care Clin Office Prac 37 (2010):49-64.

Level B evidence (small clinical trials)

OMT recommended for:

- Neck pain
- Ankle sprain
- Fibromyalgia
- Headache
- Pneumonia
- Atelectasis
- Reduce narcotic usage
- LBP during pregnancy and labor
- Menopausal symptoms
- Colic
- Otitis media
- Pancreatitis
- Parkinson's Disease

National Guidelines for OMM/OMT

- AAO
- AOA
- US Govt.
- International

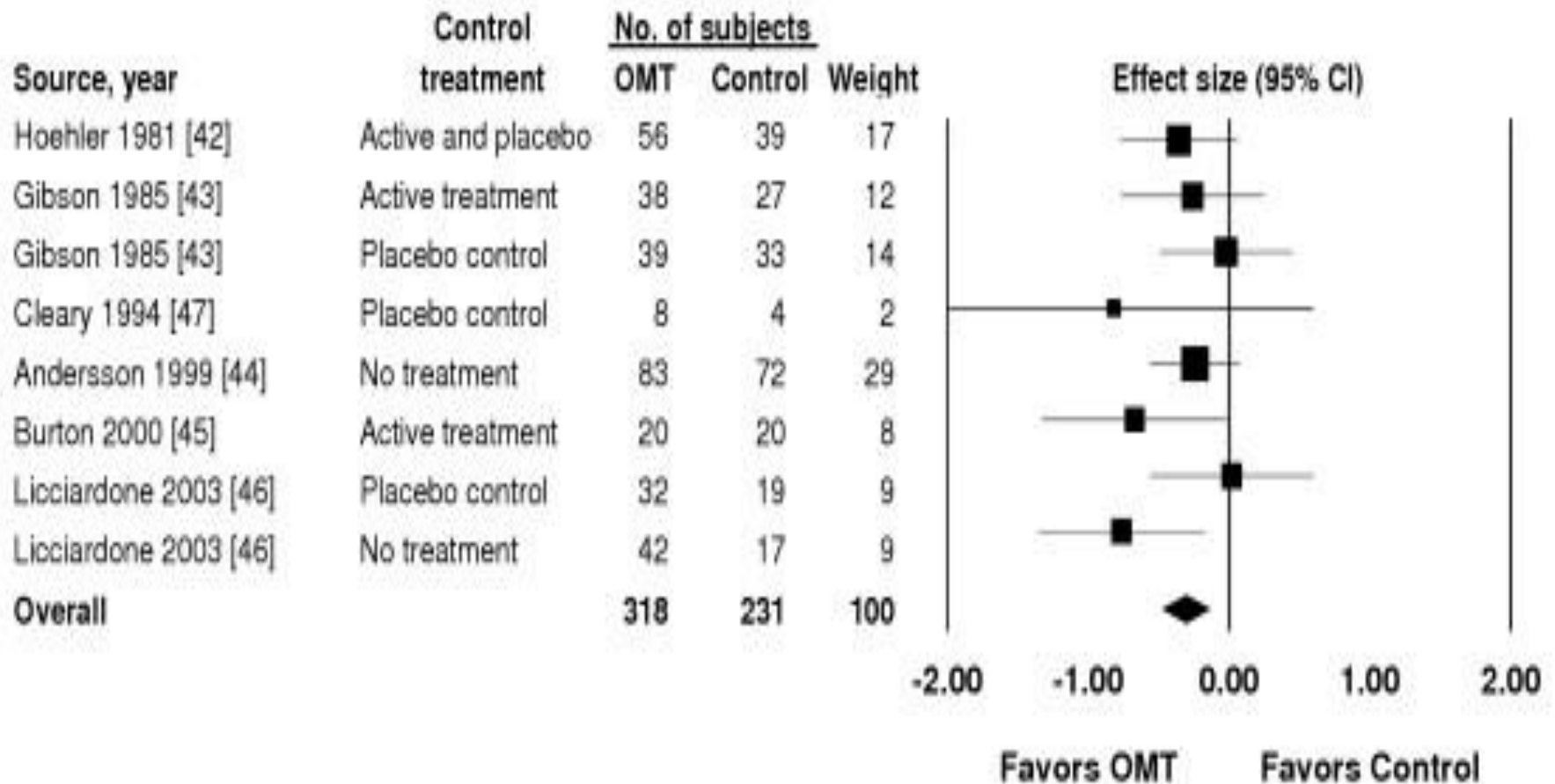
AOA National Guideline

- OMT by D.O.s is recommended for patients with Low Back Pain and Somatic Dysfunction
- Agency for Healthcare Research and Quality (AHRQ) National Guidelines Clearinghouse (NGC) Guideline Summary NGC-7504
- Grade 1a level of evidence (Meta-analysis, systematic review of RCTs)
- JAOA • Vol 110 • No 11 • Clinical Guideline Subcommittee on Low Back Pain Special Communication • November 2010 • 653-666

Meta Analysis OMT for Patients with LBP

- **Osteopathic manipulative treatment for low back pain: a systematic review and meta-analysis of randomized controlled trials, 2005 John C Licciardone et al**
 - 6 studies from 1981 to 2003
 - Compared and analyzed results

Treatment Effect (Effect Size)



OMT LBP Meta analysis

- Results
 - OMT relieves pain better than both no treatment and placebo controls
 - effect size, -0.30; 95% confidence interval, -0.47 to -0.13; $P = .001$
 - Pain relief persists for at least 3 months

AOA Practice Recommendations

- Offer OMT for patients who have evidence of somatic dysfunction in the acute, subacute or chronic stages of mechanical low back pain

Impact of EBM OMM on Physician Policy Regarding Reimbursement:

California Medical Association
October 4, 2010

RESOLVED: That CMA support the recognition and payment for Osteopathic Manipulative Treatment (OMT) by all payors.

OMT Cost Effectiveness

- William Thomas Crow, and David R. Willis
**Estimating Cost of Care for Patients
With Acute Low Back Pain: A
Retrospective Review of Patient Records**
J Am Osteopath Assoc, Apr 2009; 109: 229
- 233

OMT Cost Effectiveness for Patients with LBP

Reduced Expenses for Episode of Care:

- Radiology - \$63.81 less ($P=.0001$)
- Medications - \$19.53 lower ($P.001$)
- *Total overall costs* - \$38.26 lower ($P=.02$)

William Thomas Crow, and David R. Willis. **Estimating Cost of Care for Patients With Acute Low Back Pain: A Retrospective Review of Patient Records.** J Am Osteopath Assoc, Apr 2009; 109: 229 - 233

Documentation of OMM/OMT

Glossary of Terminology

<http://www.aacom.org/resources/Documents/Downloads/GOT2009ed.pdf>

SOMATIC DYSFUNCTION:

Impaired or altered function of related components of the somatic (body framework) system:

Structure

skeletal, arthrodiar &

Motion

myofascial structures, &

related

vascular,

Tissue

lymphatic &

neural elements

AMENABLE TO MANIPULATION

Diagnostic sequence in OMM

S

Patient Complaints
Pain/Discomfort Motion Loss

O

A

Screen
General Examination

R

Scan
Specific Areas

T

Segmental Evaluation

Other
Examinations

A

Somatic Dysfunction (Region)

P

Manipulative Prescription (OMT)

ICD-9 CODES

- 739.0 Head region
- 739.1 Cervical region
- 739.2 Thoracic region
- 739.3 Lumbar region
- 739.4 Sacral region
- 739.5 Pelvic region
- 739.6 Lower extremities
- 739.7 Upper extremities
- 739.8 Rib cage
- 739.9 Abdomen and other

CPT CODES

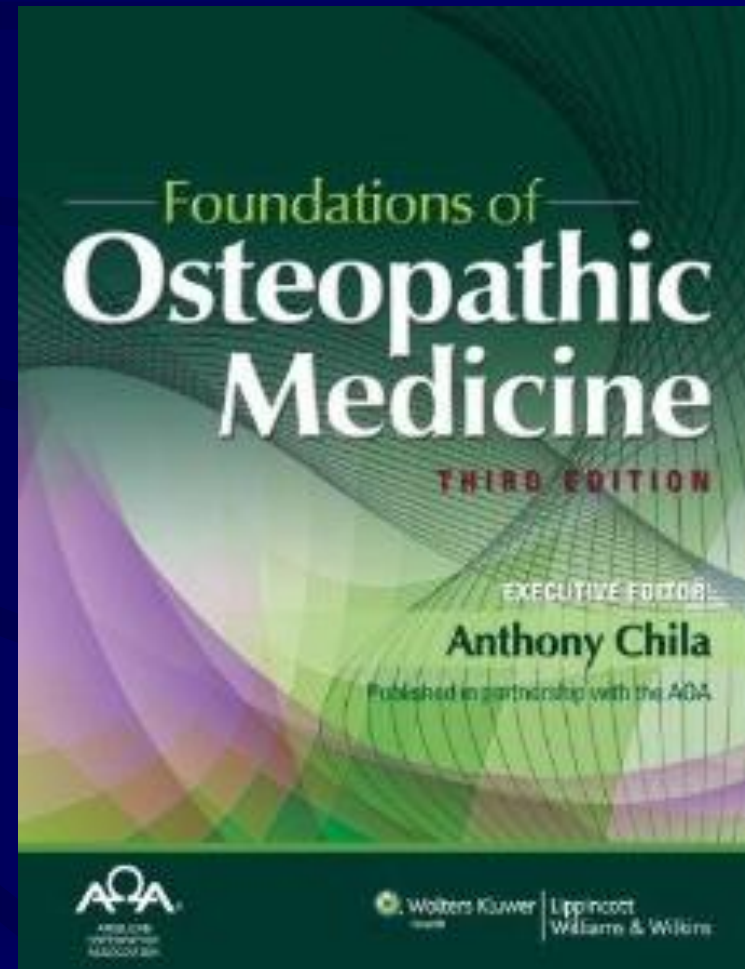
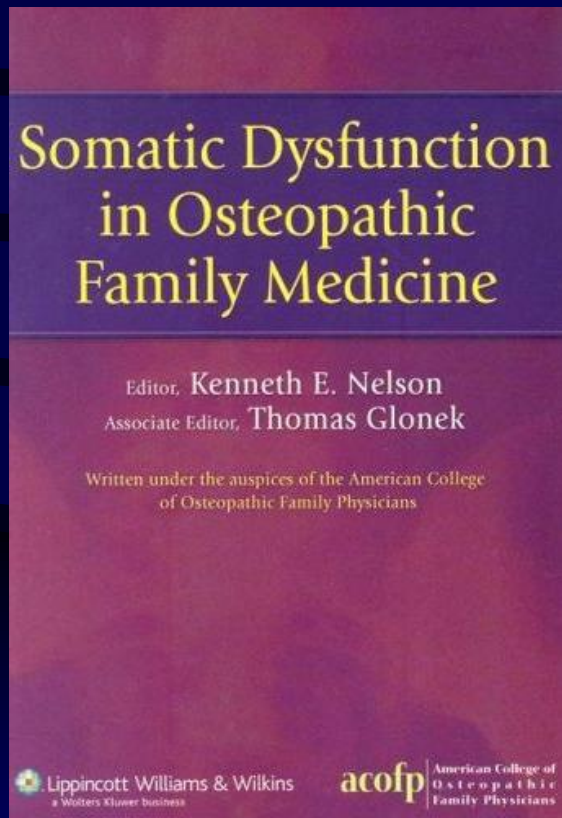
- 98925 OMT 1-2 regions
- 98926 OMT 3-4 regions
- 98927 OMT 5-6 regions
- 98928 OMT 7-8 regions
- 98929 OMT 9-10 regions

- -59 combined with -25 for E/M code
e.g., 99214-25 and 98926-59

AOA Protocols for OMT

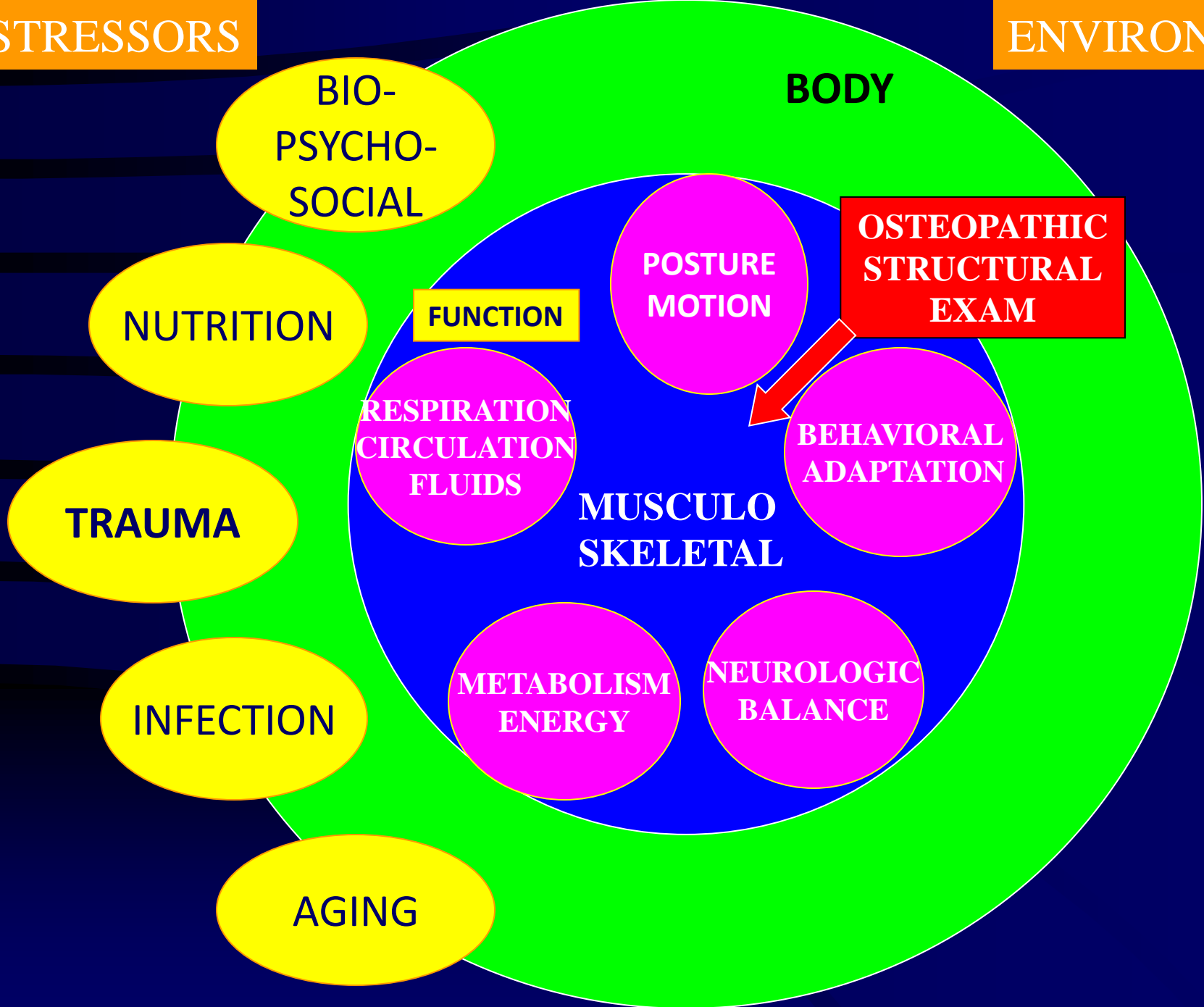
- <http://www.osteopathic.org/inside-aoa/development/practice-mgt>
- call (800) 621-1773, ext. 8180, to receive printed copies
 - *Protocols for Osteopathic Manipulative Treatment*
 - *Osteopathic Manipulative Treatment (OMT) with Evaluation and Management Services*

Osteopathic EBM References



Organizing an Osteopathic Approach to Patient Care

- “Think Osteopathically; Prove it; Publish it; Promote it” – Martin Levine, DO, AOA President 2011-12
- What constitutes osteopathic thinking and practice?
- What is the consensus of the experts?



STRESSORS

ENVIRONMENT

BODY

Anxiety

NICOTINE

PAIN

MICROBIAL TOXINS

CELLULAR DEGENERATION

PATHO-
PHYSIOLOGY

ALTERED
BIO-
MECHANICS

OMT

ISCHEMIA
EDEMA
STASIS

BIORHYTHMS
DEPRESSION
ANXIETY

Somatic
Dysfunction

↓ IMMUNE
INFLAMMATION
ENDOCRINE
IMBALANCE

AUTONOMIC
IMBALANCE



Musculoskeletal

Respirat**O**ry

Me**T**abolic

Behav**I**oral

Circulat**O**ry

Neurologic

Myo **F** ascial

Thr **U** st

Muscle **E N** ergy

Arti **C** ulatory

Coun **T** erstrain

Soft t **I** ssue

Crani **O** -sacral

I **N** direct

Patient Scenarios

36 y.o. male with low back pain after shoveling snow

- Unable to stand up straight
- Pain is dull, achy, worse with lifting, better with rest; pain radiates to posterior thigh
- Exam shows L5 is flexed, rotated right and the sacrum will not nutate (base stays posterior) and is rotated left
- How would you treat his problem with OMT?

A 28-year-old male with right sided low back pain

- Dull, achy, with pain also in the right buttock.
- Better with rest and walking; worse with bending, twisting, lifting movements.
- Onset was 4 weeks ago after he painted a house.
- On examination there is a focal area of tenderness over the right buttock midway between the greater trochanter of the femur and the inferior lateral angle of the sacrum.
- How would you address this problem?

24 y.o. female runner with chronic low back pain

- Your examination reveals increased lumbar lordosis, with tight hip flexors as denoted by a positive Thomas test of the right iliopsoas muscle.
- Urine pregnancy test is negative and lumbar and pelvic x-rays are normal.
- What would you do for her?

38 y.o. female can't stand up straight after a fall at home

- Shortness of Breath
 - Right lumbar and costal pain
 - Asthma
 - Left Hemiparesis (prior SLE → CVA)
 - HTN
 - Seizures
- Medications:
- Corticosteroids
 - Beta-2 agonists
 - Thiazide diuretic
 - Antihistamine
 - Anticonvulsant
- How would you treat her?

48 y.o. female with low back pain

- T7-8 Spinal Fusion with rods T5-9 1992 with residual
- Left flaccid paralysis below T7.
- Fell prior to new onset of abdominal cramping and pain with constipation, urgency, headaches and insomnia.
- Spasm and tenderness noted on right side of lumbar spine and left upper back and neck.
- What is your treatment plan?

A 14-year-old male with chronic low back pain

- Treated for a renal tumor at age 9.
- After chemotherapy, including corticosteroids, developed severe osteoporosis and had vertebral fractures at T5 and T10; no spinal cord injury.
- He has paraspinal muscle hypertonicity around T5 and T10 that is chronic and tender.
- How would you address this problem?

68 y.o. male with prostate CA and sudden onset back pain

- No history of trauma.
- Neurologic deficits found in lower extremities along with urinary retention.
- How would you treat him?

58 y.o. female with acute thoracolumbar junction pain

- No history of trauma
- Pain worse at night, can't get comfortable in any position.
- Narcotics of no help
- Exam reveals right quadratus lumborum spasm; soft tissue stretching of quadratus lumborum spasm elicits crackling sensation under hands at T11 and T12 costovertebral joints.
- What would you do next?

32 y.o. female with chronic left sacroiliac joint pain

- Worse after childbirth, refractory to exercise, physical therapy or manipulation
- What further diagnostic tests are indicated?
- What is your differential diagnosis?

EBM References

- AHRQ NGC ICSI, Adult Low Back Pain: http://www.guideline.gov/summary/summary.aspx?doc_id=9863&nbr=005287&string=back+AND+pain, accessed 10/13/07; see section #13.
- AHRQ NGC, Work Loss Data Institute, Low back=lumbar and thoracic (acute & chronic): http://www.guideline.gov/summary/summary.aspx?doc_id=11024&nbr=005804&string=back+AND+pain, accessed 6/16/08; see section under “without radiculopathy”, “second visit”.
- Licciardone J et al. Osteopathic manipulative treatment for low back pain: A systematic review and meta-analysis of randomized controlled trials. BMC Musculoskeletal Disord 6:43, 2005. Available at <http://www.biomedcentral.com/1471-2474/6/43/> Accessed 6/16/08.
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- Chou R et al. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. Ann Intern Med.2007 Oct 2;147(7):478-91.
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