Comprehensive Back Pain Treatment Without Narcotics or Spine Surgery

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LOWER BACK PAIN

- One of Most Common Medical Problems in U.S.
- 85% of Individuals Will Have 1 or More Attacks
- Lifetime Recurrent Attacks Common
  - Poor Body Conditioning
  - Heavy Physical Labor
  - Sedentary Lifestyle
  - Vegetative Lifestyles
  - Smoking
- Chronic Lower Back Pain
CAUSES OF LOWER BACK PAIN

- Back Muscle Strain
- Fascia Strain
- Weak Abdominal Muscles / No Core Conditioning
- Somatic Dysfunction
  - Sacral Rotation & Shearing
  - Pelvic & Spinal Rotations, Unequal Leg Length
  - Gluteal & Piriformis Strains
- Sacroiliitis
- Disc Herniation
- Severe Spinal Stenosis
- Rarely Arthritic Disease
BACK PAIN – NATURAL Hx

- Most Attacks Will Clear With Conservative Tx – 95%
- Ice + NSAIDs
- Physical Therapy
  - Manual “hands-on” Therapy
  - Daily Back Exercises
  - Rarely Muscle Relaxants
  - Topical Analgesic Creams
- Need Both Skeletal and Soft Tissue Mobilization
More Back Surgery is Performed in U.S. Per Capita
- Back surgery 40% higher in U.S. than in any other country

High Annual Cost of Spine Surgery
- $25 billion surgical treatment cost annually
- PLUS $25 billion lost in wages and insurance claims
- $40 billion in rehabilitation and additional treatment costs

Failure Rates Increased By: obesity, smoking, diabetes, cardiac & lung disease
CHRONIC LOWER BACK PAIN

- Some May Have Persistent Back Pain
- This is Not an Indication for Surgery
  - These patients will fail surgery – worse off
- Continue Conservative Therapy Combinations
  - Daily Back Exercises
  - Core Conditioning Training
  - Weight Loss
  - Non-Narcotic Pain Management
- Typical To Find No Specific Cause For Pain
MRI FINDINGS

- Disc Bulges Do Not Cause Symptoms
- Spinal Stenosis
  - Mild, Moderate, Severe
    - Only Severe Stenosis May Be Symptomatic
    - Leg Claudication
- Disc Herniation
  - Central – usually asymptomatic
  - Lateral – May cause symptoms if severe
  - Herniation with Fragment – usually symptomatic
  - Arthritic Spurs (Osteophytes) – usually no symptoms
- MRI Findings Alone are NOT Sufficient to Justify Surgery
LOWER BACK PAIN - CAUSES

- Many Causes of LBP Cannot Be Identified
- Many Patients Will Have MRI Changes
- MRI findings usually not the cause for back pain
- Surgery is Not a LAST OPTION when all else fails
  - In Most Of These Cases, Surgery Never Indicated
- Studies Have Shown 70% of Asymptomatic Patients Will Have MRI Abnormalities
  - Studies done on patients with NO symptoms
  - MRI findings therefore do not explain pain
  - No treatment needed for these patients
National Guidelines for Treatment of Cervical, Thoracic and Lumbar Injuries & Pain

Agency for Healthcare Research and Quality – AHRQ

U.S. Department of Health & Human Services
### AHRQ Guidelines
#### Acute Cervical, Thoracic, Lumbar Pain

<table>
<thead>
<tr>
<th>RECOMMENDED</th>
<th>NOT RECOMMENDED</th>
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<tbody>
<tr>
<td>Non-steroidal anti-inflammatory drugs</td>
<td>Bed rest</td>
</tr>
<tr>
<td>Acetaminophen with or without radicular symptoms, for those with contraindications for NSAIDs</td>
<td>Routine use of opioids</td>
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<tr>
<td>Muscle relaxants as a second-line treatment in pain not adequately controlled by NSAIDs</td>
<td>Steroids of any kind</td>
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<tr>
<td>Manual physical therapy with massage for relief of cervical/lumbar pain with an active treatment program focusing on active exercises</td>
<td>Lumbar supports or elastic braces</td>
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<tr>
<td>Limited use of opioids for severe acute cervical or lumbar pain without radicular symptoms</td>
<td>Epidural steroid or facet injections</td>
</tr>
<tr>
<td>Self-applications of ice packs to affected areas</td>
<td>Radio frequency nerve ablation</td>
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<td>Spinal surgery or Pain Management</td>
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### AHRQ Guidelines

**Subacute Cervical, Thoracic, Lumbar Pain:**

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<td>Specific stretching and strengthening exercises</td>
<td>Bed rest or traction</td>
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<td>Acetaminophen or NSAID therapy</td>
<td>Routine use of opioids</td>
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<td>Manual physical therapy with massage for cervical or lumbar pain with active strengthening exercises</td>
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<tr>
<td>Work conditioning or hardening program</td>
<td>Radio frequency nerve ablation</td>
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<tr>
<td>Very limited use of opioids for persistent severe cervical or lumbar pain</td>
<td>Epidural steroid or facet injections</td>
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<td>Self-application of ice packs or heat to affected areas</td>
<td>Spinal surgery <strong>OF ANY TYPE</strong> without clear symptoms &amp; objective findings of radiculopathy</td>
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MRI MISINTERPRETATION

- One of Most Common Medical Errors in U.S.
- MRI Abnormality Does Not = Surgery
- MRI Findings Frequently Do Not Correlate With Sx
  - Disc (annular) Bulging Benign
  - Annular Tears – Heal Naturally
  - Herniation Must Correlate Exactly with Findings on Neurological Exam
- Always Treat Conservatively First
SURGICAL TREATMENT

- Surgery Makes Permanent Changes to Spine
- Surrounding Tissue with Scarring
- Pain Not Improved – Frequently Worse
  - More Failed Rehab
  - Pain Management – Narcotic Addiction
  - Ineffective Invasive Procedures
    - ESI or RFA
  - Poor Surgical Technique
- Hardware Commonly Results in Complications
SURGICAL BACK PAIN Tx

- Inappropriate Surgery Results in More Surgery
- More Surgery is Less Effective Than 1st Surgery
- 500,000+ Back Surgeries Done Annually
  - 50% Will Not Have Good Outcomes
  - 10% Will Be Significantly Worse
  - Overall Failure Rate: 60%
- Get a Second Opinion From a Non-Surgical Dr.
- Disc Herniation Natural Hx is to Heal On Its Own
DISC HERNIATION IMAGES

Disc Herniation Diagram

MRI Lumbar Spine HNP

Left Disc Herniation

Left Disc Herniation – Sagittal
DEGREES OF STENOSIS

- Most Spinal Stenosis is ASYMPTOMATIC
- Significant Spinal Stenosis
  - Cervical – less than 9 mm
    - Concern for hyperextension cord contusion
  - Lumbar – less than 4 mm
    - Not all severe lumbar stenosis is symptomatic
    - Patients should have sciatica or claudication
- Surgery is the only definitive tx for symptomatic stenosis
- Epidural Steroids are risky and temporary – at best
SPINAL STENOSIS IMAGES

Lumbar Stenosis - Mild

Lumbar Stenosis - Severe
SPINAL STENOSIS - SEVERE

Cervical Stenosis

Lumbar Stenosis
MRI SPINE LIMITATIONS

- Not all causes of back or leg pain can be found
- Most abnormalities seen on MRI are not causing a problem
- MRI Spine Abnormality ≠ Surgery
- 70% of asymptomatic patients have disc abnormalities on MRI or CT studies
- Lifetime MRI abnormalities: 90% of population
CANNOT FIX WHAT IS NOT BROKE

- Normal spine aging changes do not justify surgery
  - Many inappropriate spine surgeries are done for this reason
- Wrong Surgery Reasoning = Poor Outcome
  - Pain after surgery is frequently worse
- Failed Back Syndrome
  - No pain relief after surgery
  - Persistent pain after surgery
  - Worsening of pain after surgery
  - Permanent neurological deficits – foot drop, sciatica, others
COMPLICATIONS OF WRONG SPINE SURGERY - RSD
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TYPES OF SPINAL SURGERY

- Laser Surgery – a gimmick only
  - Still need to cut patient open, down to spine
  - Re-operation rate higher

- Spinal Fusion
  - Complication and Failure Rate Higher Than “Regular Surgery”
  - Most do not need fusions although now 1/3 all spine surgery
  - Multiple Level Spinal Fusions Should be Completely Avoided
  - Highest risk of failure and neurological damage

- Microdiscectomies
  - “Less Invasive, Shorter Recovery Time” – TRUE
  - Higher Failure and Re-operation Rate
BACK SURGERY COMPLICATIONS

- Risk of General Anesthesia
- Blood Clots – Pulmonary Embolism
- Sepsis
- Spinal Abscess
- Fusion Failure
- Spinal Hardware Complications
  - Misplacement – Nerve Root Damage
  - Vertebral Body Fracture
  - Migration of Pedicle
  - Unnecessary Hardware Placement
- Narcotic Addiction for Persistent Pain Treatment
- Additional Unnecessary, Ineffective Treatment – ESI, RFA
- More Surgery – a Never-Ending Cycle
Spine Hardware Gone Bad

Normal

Pedicle

Failure

Pedicle screw entirely within bone
CONDITIONS NECESSARY FOR SUCCESSFUL SURGERY

- Generally in good health
- Non-smoker OR quit smoking completely
- Symptomatic Lumbar Stenosis – claudication
- Cervical Stenosis of less than 9 mm or symptomatic
  - Arm pain and/or weakness
  - Gait spasticity / change in gait
  - Loss of bowel or bladder control – extreme stenosis
- Large disc herniation at correct level & correct side with persistent pain or motor deficit
- Tumors, some fractures, hematoma, abscess
CONCLUSIONS

- Most neck and back pain will respond to conservative treatment.
- Surgery not needed for 97%+ of spine pain cases.
- Daily neck and back exercises necessary.
- Avoid narcotics – addictive, not really effective.
- MRI findings misleading at best – usually not the answer.
  - Treat first, scan last.
- Treat neck, back & sciatica cases with therapy and non-narcotic medications.
- To justify spine surgery, patient must have failed conservative therapy and have physical exam findings which correlate with MRI findings exactly.
AVOID BACK SURGERY

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