



# *Oh, My Aching Back*

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I have no disclosures.

# Question

A 44 year old man presents with back pain. He notes he has occasionally had back soreness throughout his life, but, last weekend, he went to a trampoline park with his kids and, after bouncing around, has had worse soreness than usual that has interfered with his sleep and taken longer to resolve. He denies fever, weight loss, or neurological symptoms. What non-pharmacologic therapy has the best evidence for his acute pain?

- 1) Heat
- 2) Massage
- 3) Acupuncture
- 4) Spinal manipulation
- 5) Exercise

# Answer

- 1) Heat
- 2) Massage
- 3) Acupuncture
- 4) Spinal manipulation
- 5) Exercise



# Low back pain

- 25% of the population quarterly
- Driver of healthcare costs and lost productivity
- Most (>2/3) resolves in one year

# Non-pharmacologic therapy of acute back pain: Heat

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- Moderate benefit
- Moderate strength of evidence



# Non-pharmacologic therapy of acute back pain: Massage

- Moderate 1 week benefit
- No 5 week benefit
- Low strength of evidence



Non-pharmacologic therapy  
of acute back pain:  
Acupuncture

- Low benefit
- Low strength of evidence






# Non-pharmacologic therapy of acute back pain: Spinal Manipulation

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- No benefit
- Low strength of evidence



A man in a blue sequined tank top and striped shorts is dancing on a stage. He is surrounded by several children, some of whom are also dancing or pointing. The background consists of wooden bleachers. The scene is lit with warm stage lights.

Non-pharmacologic therapy of  
acute back pain:

## Exercise

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- No benefit
- Low strength of evidence
  - 6 RCTs

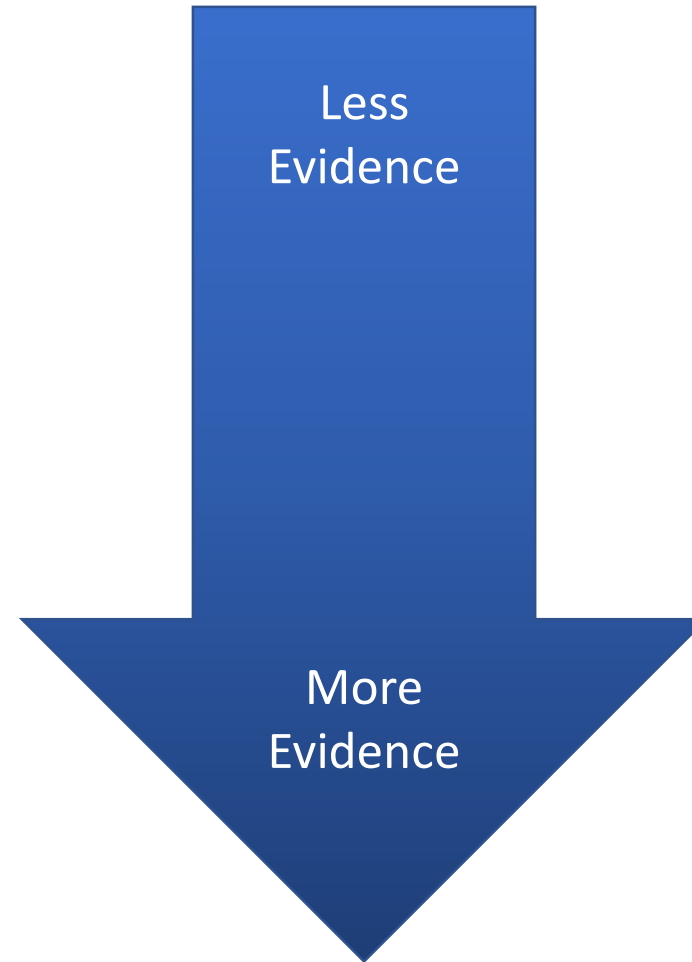
# Question

For this patient, what pharmacologic therapy has the best evidence for his acute back pain?

- 1) Corticosteroids
- 2) Acetaminophen
- 3) Muscle relaxants
- 4) NSAIDs

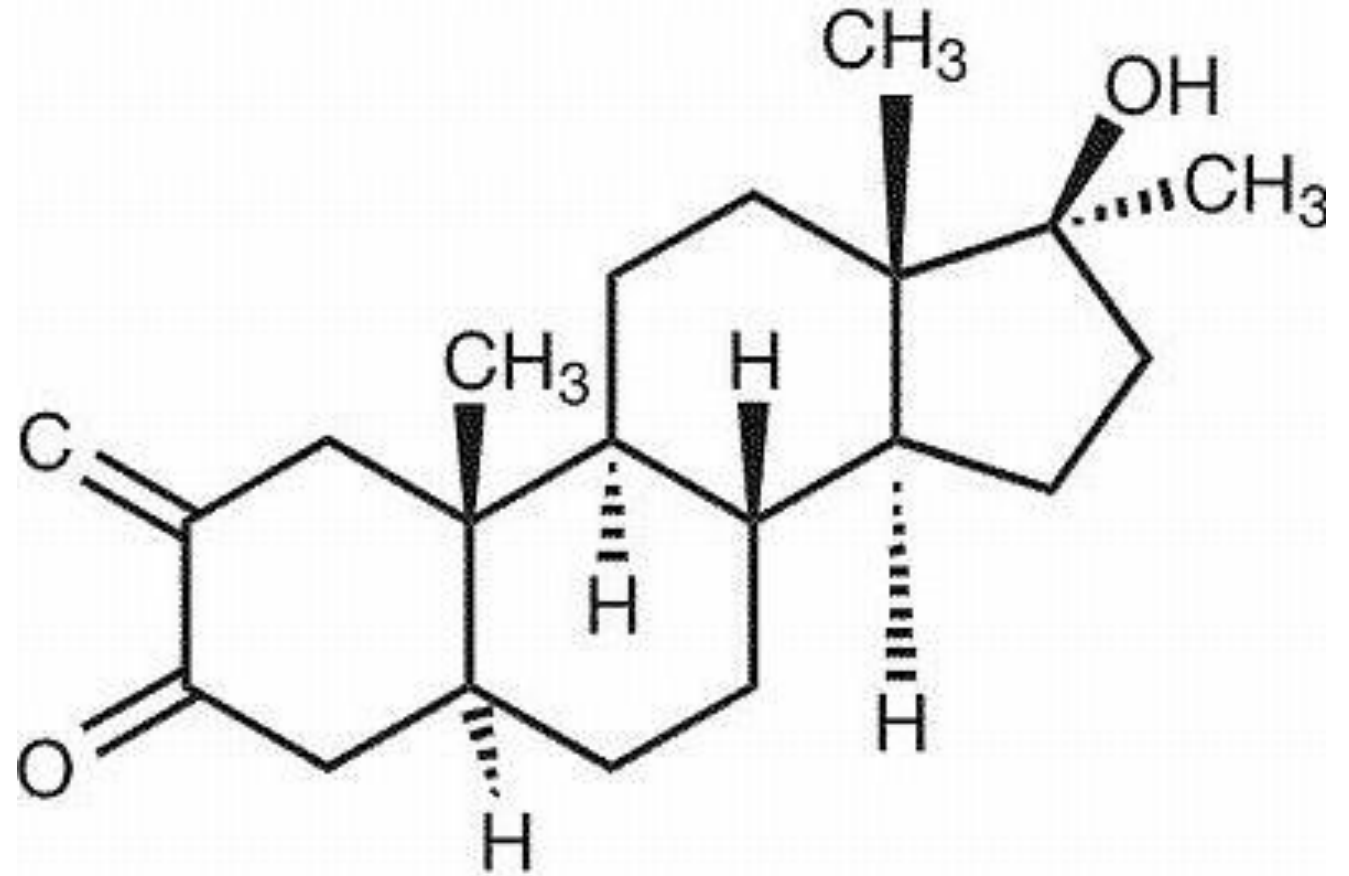
# Answer

- 1) Corticosteroids
- 2) Acetaminophen
- 3) Muscle relaxants
- 4) NSAIDs



# Pharmacologic therapy of acute back pain: Corticosteroids

- No benefit
- Low strength of evidence



# Pharmacologic therapy of acute back pain: Acetaminophen

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- No benefit
- Low strength of evidence
  - 4 RCTs



Pharmacologic therapy of  
acute back pain:  
Muscle Relaxants

- Small benefit
- Moderate strength of evidence
  - 5 RCTs



Pharmacologic therapy  
of acute back pain:  
NSAIDs

- Small benefit
- Low-Moderate strength of evidence
  - 5 RCTs





# The Future: Lasers?

## Low Level Laser Therapy

- 1 RCT
- Moderate-Large Benefit

But...

**“Photobiomodulation using high- or low-level laser irradiations in patients with lumbar disc degenerative changes: disappointing outcomes and remarks” – Taradaj et al. Clin Interv Aging. 2018.**





# On, My Aching Back

- Yes: Heat + NSAIDs
- Maybe: Massage, acupuncture, muscle relaxants
- No: Acetaminophen, exercise

It'll probably get better any way.

Questions and discussion  
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