Pediatric (and Adolescent) Back Pain

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Scope and Incidence

- Back pain is a symptom, not a disease.
- Many conditions can cause back pain (spondylolysis, diskitis, kyphosis, etc.)
- This talk specifically discusses the work-up of back pain and treatment of mechanical back pain.
- Incidence of back pain in pediatric and adolescent populations is estimated to be between 8-18% per year (no recent studies).
- Infrequently a cause of significant pathology that requires treatment.
Goals

- Develop an algorithmic work-up.
- Minimize expense and radiation exposure.
- Identify treatable causes of back pain.
- Initiate treatment.
- Reassure or refer.
Comorbidities/Differential diagnosis

- Obesity
- Deconditioning
- Backpack wear
- Posture
- Overuse/Misuse/Abuse
- Kyphosis
- Spondylolysis/Spondylolisthesis
- Scoliosis
- Diskitis/Infection
- Leukemia
- Fracture
- Congenital defect
- Dwarfism
- Referred pain
- Rheumatologic
- Others.....
Do backpacks cause back pain?

- Yes. But, who cares?
- Numerous studies in last ten years.
- Consensus that increasing weight (30% of child weight) is positively associated with back pain, but not with treatable pathology.
- Treatments are to reduce weight, to use both straps, and to wear the back pack in a “high carrying” position.
Do backpacks cause back pain?

The Healthy Way TO WEAR A BACKPACK

PACK IT LIGHT

- A child should wear a pack that is 10% or less of 10% of their body weight.
- Backpacks should not weigh more than 10% of your body weight.

WEIGHT

- Heaviest
- Lightest

HEAVIEST LIGHTEST

WEAR IT RIGHT

- Wear both shoulder straps, not just one.
- Wear 3" below shoulder blades to waist level.
- Wear the waist belt if there is one.
- The pack should fit snugly on your child's back.

Follow this simple backpack strategy to help with proper posture and avoid back, shoulder & neck aches.

NaturalHealthyConcepts.com
Mechanical back pain

- This is where the money is.
- >80% of all back pain that leads to healthcare encounter.
- Associated with overuse/misuse, obesity, deconditioning, poor posture.
- Key is an algorithmic approach and minimization of expenditures and medical testing.
Algorithmic approach

From: 
Treatments

- This is where we start. Think backwards—what tools do I have and which one(s) should I use?
- Test or treat?
- Observation
- Medication
- Brace/Cast/Rest
- Physical Therapy/Fitness
- Surgery
Conclusions

- Back pain is common in pediatric and adolescent patients and is usually mechanical in nature.
- Mechanical problems have mechanical solutions.
- Stop digging the hole.
- The solution often requires the patient to change behavior patterns and can take a long time.
- Physical therapy/fitness training is NEVER wrong.
- Surgery is almost NEVER right.
- Apply an algorithmic approach and rehearse your shtick.
References

- **Evaluation of an algorithmic approach to pediatric back pain.** Feldman DS; Straight JJ; Badra MI; Mohaideen A; Madan SS. J Pediatr Orthop. 26(3):353-7, 2006 May-Jun.
- **Asymmetric loads and pain associated with backpack carrying by children.** Macias BR; Murthy G; Chambers H; Hargens AR. J Pediatr Orthop. 28(5):512-7, 2008 Jul-Aug.