

# Understanding back pain

What you need to know about your own back

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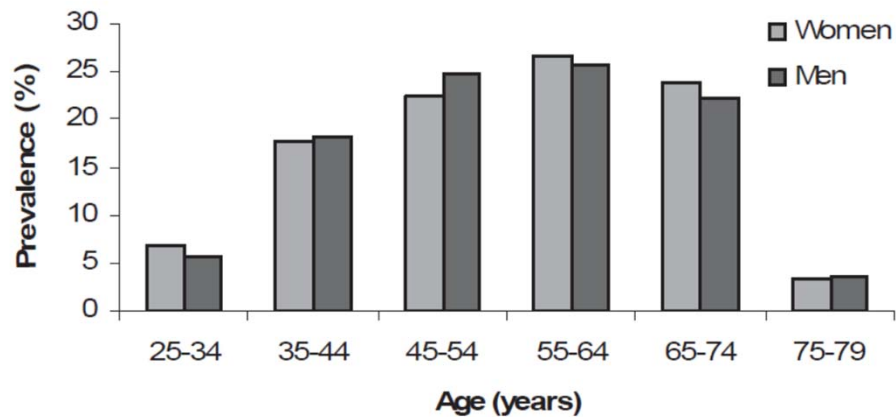


Fig. 1. Prevalence of low back pain in different age groups ( $n=2377$ ).

3 Dijken CB-V, Fjellman-Wiklund A, Hildingsson C. Low back pain, lifestyle factors and physical activity: a population-based study. J Rehabil Med. 2008;40:864-9. doi: 10.2340/16501977-0273.

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## Roadmap

- Back pain myths
- Diagnosing back pain
- Management options
- Risk factors you can control



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# Roadmap

- Back pain myths
- Diagnosing back pain
- Management options
- Lifestyle changes for pain management



“Bed rest is good for back pain”

**Sleeping Beauty**  
Neuschwanstein Castle, Germany

# THE TREATMENT OF ACUTE LOW BACK PAIN — BED REST, EXERCISES, OR ORDINARY ACTIVITY?

ANTTI MALMIVAARA, M.D., PH.D., UNTO HÄKKINEN, M.Sc., PH.D., TIMO ARO, M.D., PH.D.,  
MAJ-LEN HEINRICHS, R.N., LIISA KOSKENNIEMI, M.D., Eeva KUOSMA, M.Sc., SEPPO LAPPI, M.D.,  
RAILI PALOHEIMO, M.D., CARITA SERVO, M.D., VESA VAARANEN, M.D., PH.D.,  
AND SVEN HERNBERG, M.D., PH.D.



## The NEW ENGLAND JOURNAL of MEDICINE

7 <http://www.nejm.org/doi/full/10.1056/NEJM199502093320602>

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Bed rest

Exercise

Normal care

Table 3. Outcomes in the Bed-Rest, Exercise, and Control Groups at the 12-Week Follow-up.\*

OUTCOME MEASURE AT 12 WK	BED REST (N= 59)	EXERCISE (N= 41)	CONTROL (N= 62)	DIFFERENCE IN ADJUSTED GROUP MEANS (95% CI)	
				BED REST MINUS CONTROL	EXERCISE MINUS CONTROL
Pain and disability at work					
No. of sick days	9.2	7.2	4.7	3.4 (0.2 to 6.5)	2.5 (0.2 to 4.9)
Intensity of pain†	2.1	1.8	1.3	0.7 (0.03 to 1.4)	0.2 (-0.5 to 1.0)
Pain radiating below the knee (%)	14	10	11	4.1 (-13.4 to 21.6)	-0.01 (-28.2 to 26.2)
Ability to work‡	7.7	7.8	8.5	-0.8 (-1.5 to -0.1)	-0.7 (-1.6 to 0.2)
Straight-leg raising on more limited side (degrees)	88	89	90	0.4 (-4.8 to 5.5)	-0.7 (-5.8 to 4.4)
Lumbar flexion (cm)§	6.3	6.0	6.6	-0.6 (-1.1 to -0.1)	-0.6 (-1.1 to -0.1)
Oswestry back-disability index¶	11.8	10.8	7.4	3.8 (0.1 to 7.5)	2.6 (-1.6 to 6.7)
Health-related quality-of-life index	0.93	0.95	0.95	-0.02 (-0.04 to 0.002)	-0.005 (-0.03 to 0.02)
Satisfaction with treatment**	7.3	8.1	7.7	-0.6 (-1.6 to 0.4)	0.4 (-0.6 to 1.4)

8 <http://www.nejm.org/doi/full/10.1056/NEJM199502093320602>

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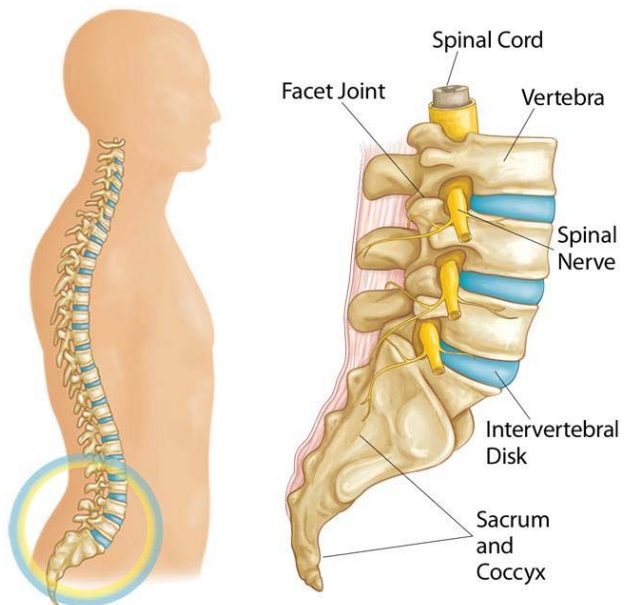


# “Disc degeneration is a disease.”

**Professor Ludwig Von Drake**  
Vienna, Austria

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10 <https://orthoinfo.aaos.org/en/diseases--conditions/herniated-disk-in-the-lower-back/>

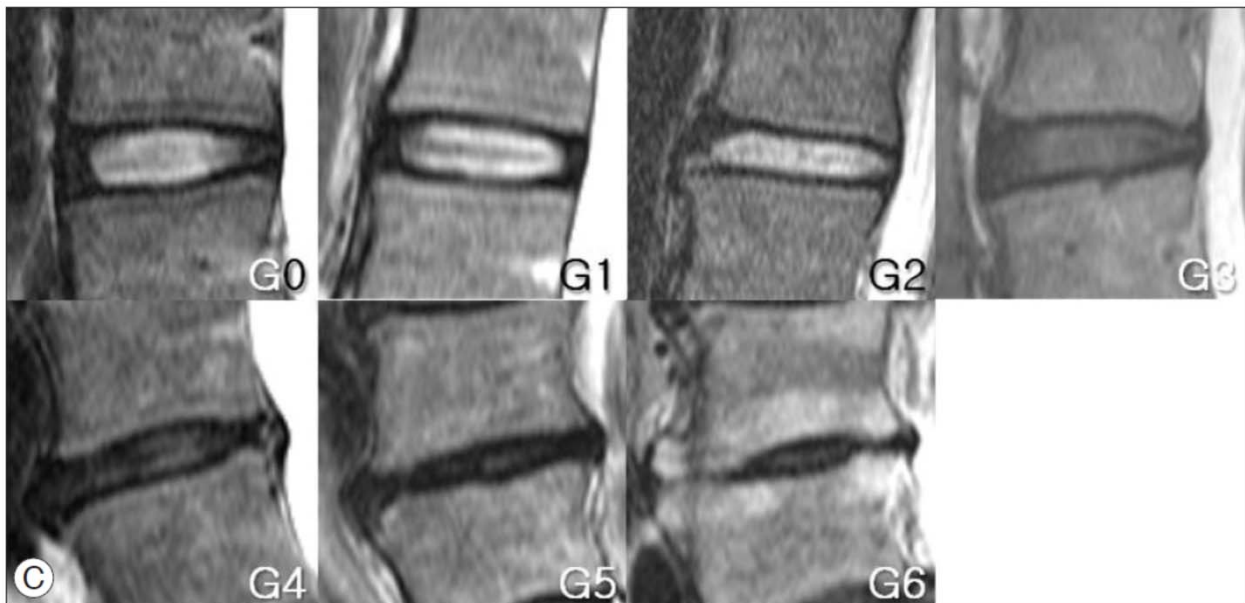
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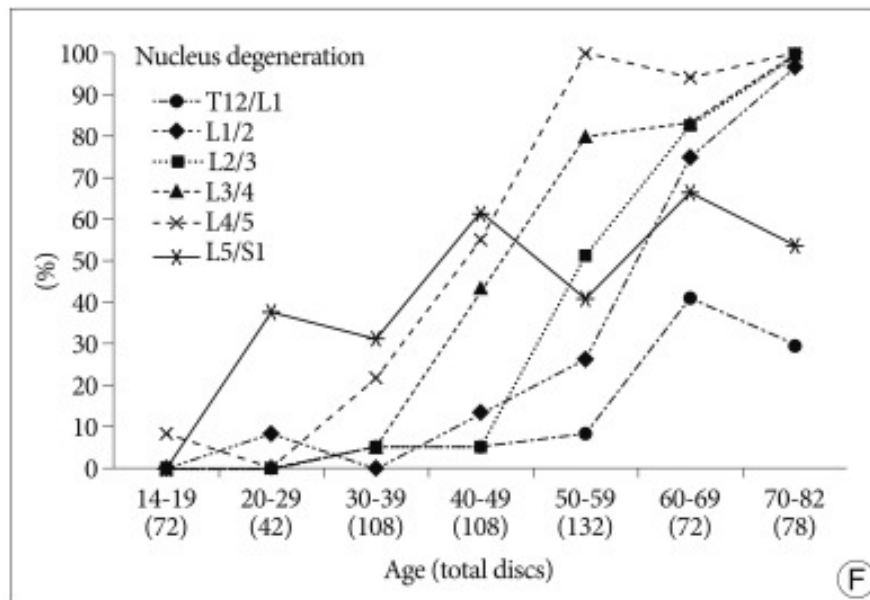
11 <https://www.leafscience.org/skin-aging/>

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12 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579079/>

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13 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579079/>

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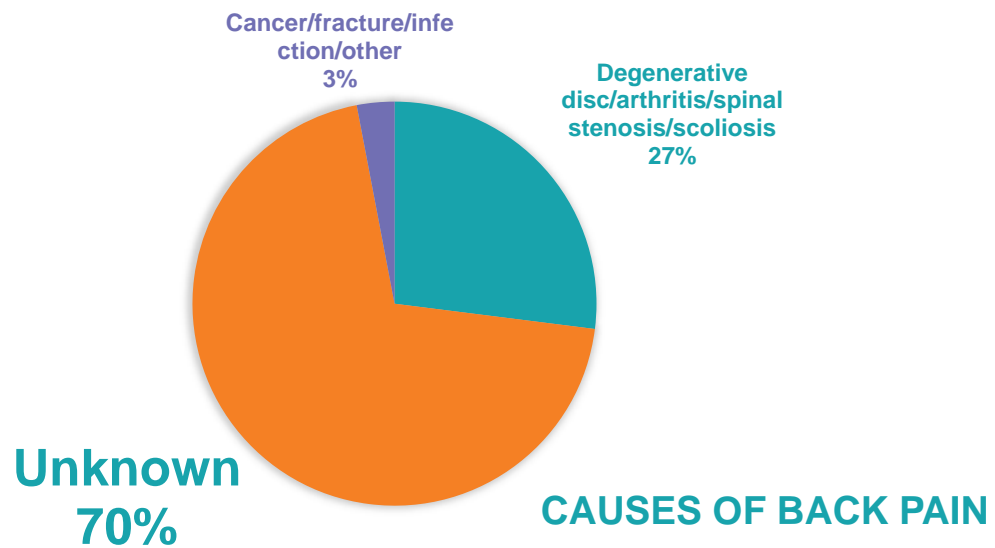
“If we do more tests, we can always find the cause of the back pain.”

**Gaston**

Likely France, but never stated

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## Barriers to diagnosis

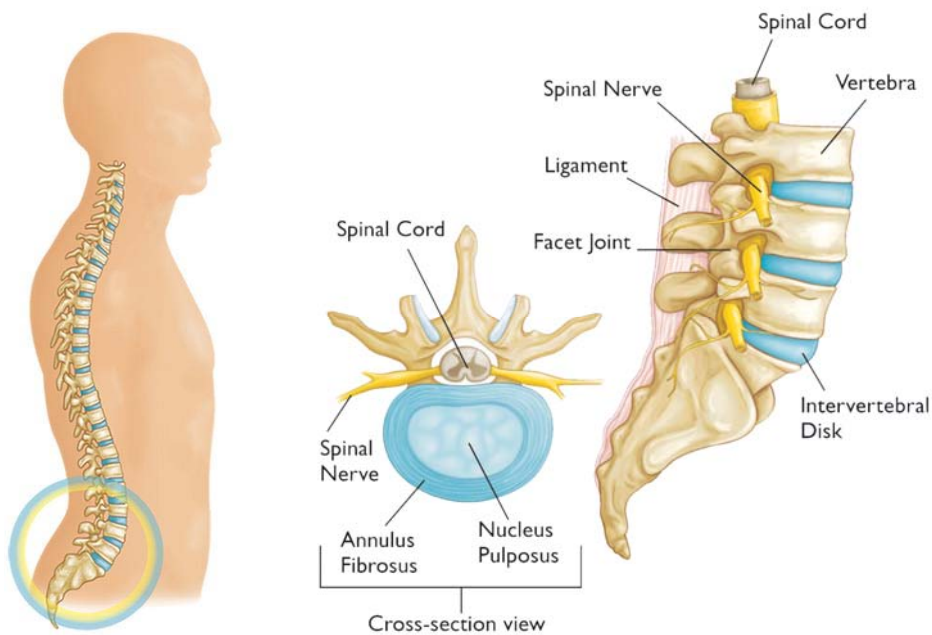
- Multiple pain sources
- Lack of pain-o-meter
- Difficult to study

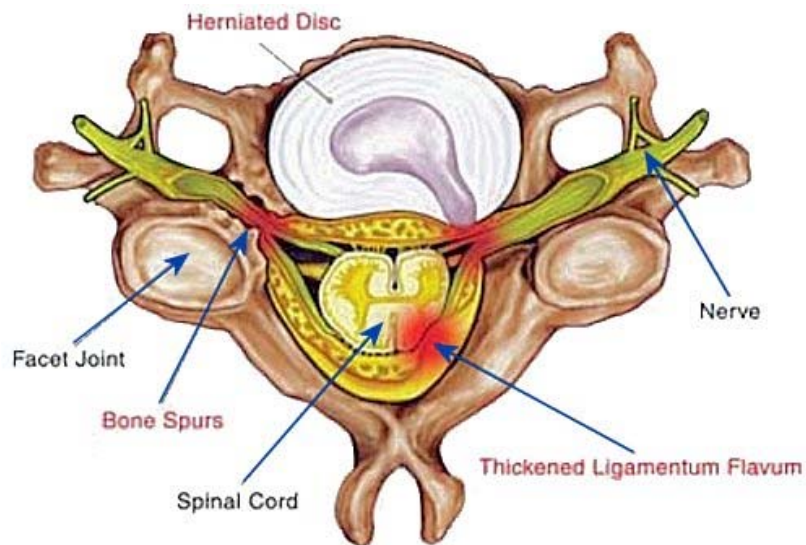


## Barriers to diagnosis

- Multiple pain sources
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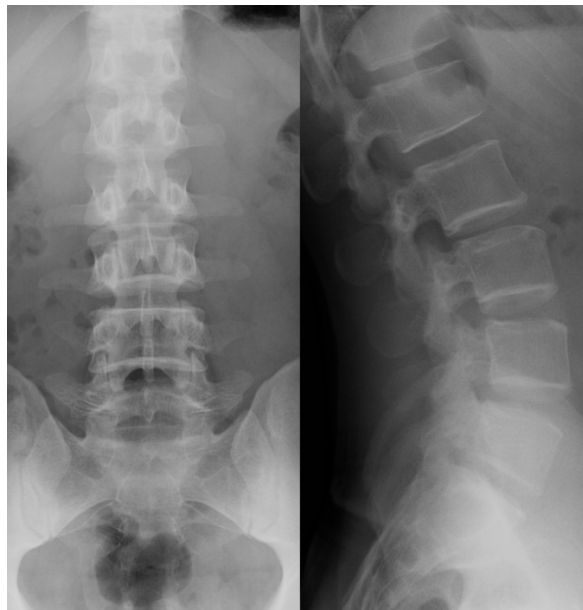




## Barriers to diagnosis

- Multiple pain sources
- Lack of pain-o-meter
- Difficult to study





23 <https://radiopaedia.org/cases/normal-lumbar-spine-radiographs>

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24 <https://radiopaedia.org/cases/normal-lumbar-spine-mri>

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25 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4431025/>

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## Barriers to diagnosis

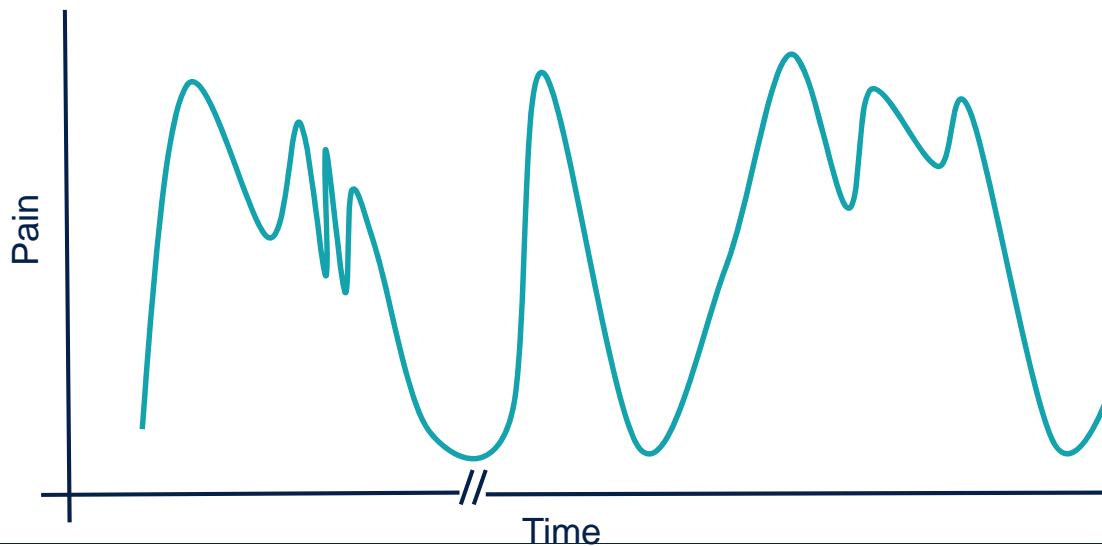
- Multiple pain sources
- Lack of pain-o-meter
- Difficult to study



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# Natural history of back pain



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bone  
arthritic  
disc  
ligament  
foraminal  
sciatica  
spondylosis  
stenosis  
spondylolisthesis  
narrowing  
degeneration  
impingement  
pain  
disease  
radicular  
muscle  
facet  
hypertrophy



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# Treatment

## CLINICAL GUIDELINE



## Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians

Amir Qaseem, MD, PhD, MHA; Timothy J. Wilt, MD, MPH; Robert M. McLean, MD; and Mary Ann Forciea, MD; for the Clinical Guidelines Committee of the American College of Physicians\*



“Given that most patients... improve over time regardless of treatment, clinicians and patients should select nonpharmacologic treatment [and] nonsteroidal anti-inflammatory drugs...”

**American College of Physicians**



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<http://annals.org/aim/fullarticle/2603228/noninvasive-treatments-acute-subacute-chronic-low-back-pain-clinical-practice>

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## Support yourself



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## Over the counter

- Anti-inflammatories
  - Ibuprofen 600mg – 3x/day
  - Naproxen 220mg
- Take with food and adequate hydration
- Talk to your physician
  - Heart risk
  - Kidney risk
  - GI bleed risk

## Over the counter

- Tylenol
  - 500 or 650mg every 6 hours; stay under 3000mg/day
  - Careful if liver conditions
- Topicals
  - Icy/hot ± lidocaine



## Complementary Care

- Chiropractry
- Acupuncture
- Massage therapy

## When to see a physician

- Uncontrolled pain, worse at night, not improving
- Unintended weight loss, fever, chills
- Weakness, numbness or tingling in legs
- Trouble with walking
- Trouble with going to the bathroom (bowel/bladder)



## When to see a physician

- Cancer – 0.7%
- Infection – 0.01%
- Fracture – 4%

## What your physician can offer?

- Prescription Medication
- Therapy
- Interventions
- Surgeries

## Prescription Medication

- Anti-inflammatories
- Opioids
- Nonopioid pain medications
  - Gabapentin/pregablin
  - Antidepressants
  - Anticonvulsants

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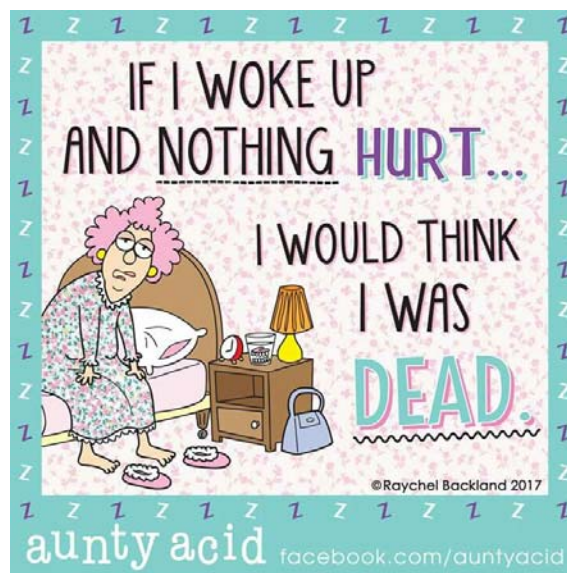
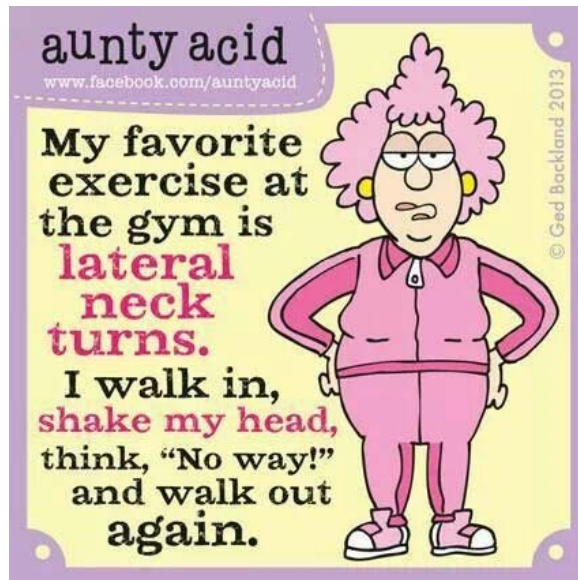
## Therapy

- Physical therapy
- Cognitive behavioral therapy

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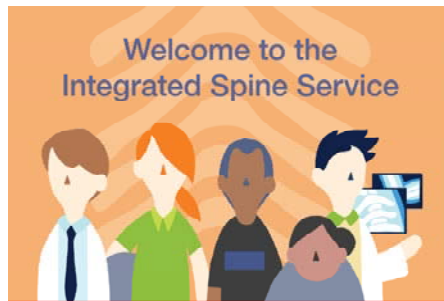
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## Lifestyle choices for your back





### What it is

The Integrated Spine Service brings together a team of experts in treating back and neck pain.

### Benefits to you

- Help you better manage your pain
- Advice and treatment by a team of pain experts who care and listen to you
- A care plan designed for your needs and goals
- Consultation with surgery, if needed

### Clinicians & staff

Our team includes experts from pain management, orthopedics, physical medicine and rehabilitation, and physical therapy.

#### MISSION BAY



Conor O'Neill, MD



Patricia Zheng, MD



Dean Yamanuha,  
PT, DPT, OCS



Stephen Baxter, PT,  
DPT, MS

#### MOUNT ZION



Mario DePinto, MD



Heidi Reetz, MD



Kurt van der Schalie,  
PT, DPT, OCS, ATC



Alejandra Peacock,  
PT, DPT, OCS

## Conclusion

- Back pain is common and mostly self-limiting
- A specific cause is often difficult to identify
- Self management is a good first step



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