

Prevalence of Neck and Arm Pain in Surgeons at a Tertiary Academic Center



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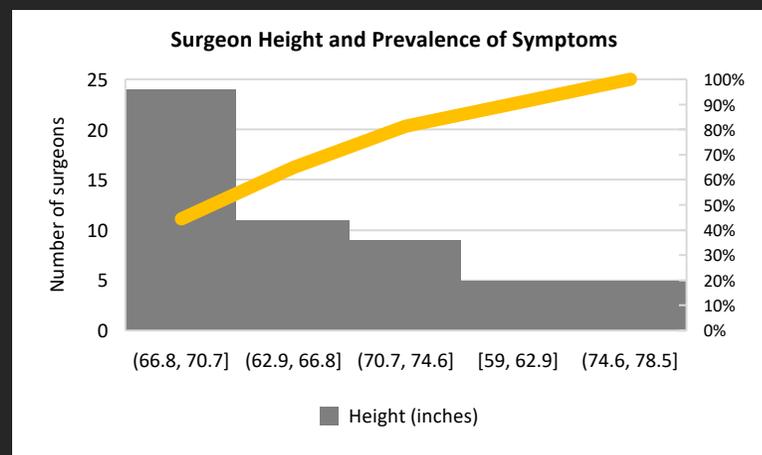
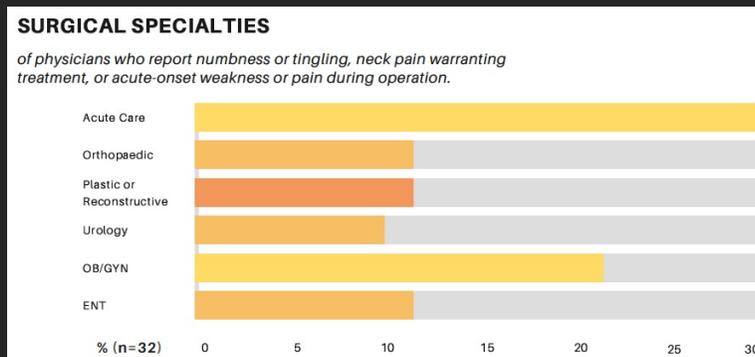
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Objective

To analyze the prevalence of neck and arm pain in surgeons

Design

- Design: Cross-sectional quality improvement study
- Setting: Tertiary academic center
- Participants:
 - 54 surgeons of various specialties
 - 31 attendings and 23 trainees.
- Intervention:
 - A REDCap questionnaire was sent electronically to all surgeons within the academic center. This included a series of three triage questions associated with neck pain or upper-extremity neurologic symptoms.
 - A conditional set of questions was prompted if the surgeon indicated current or previous symptoms.
- Outcome measures:
 - Surgeon experience demographics
 - Surgical environments
 - Incidence of self-reported symptoms
 - Imaging
 - Treatment received
 - Rate of surgical modifications secondary to symptoms



Results

59.7% (n=32) of surgeons reported one or more:

- 81% - numbness or tingling in arms or hands
- 41% - neck pain warranting treatment
- 25% - acute-onset upper extremity weakness or pain while operating

Of those with symptoms:

- 97% received treatment, most commonly physical therapy or oral analgesics
- 72% have not undergone advanced imaging or electrodiagnostics
- Surgeons several inches shorter than co-surgeons had a higher likelihood of symptoms compared to surgeons of equal or taller height ($p=0.05$)
- 54.8% of surgeons had onset of symptoms between 20-30 years old
- 92.6% never received formal ergonomic training

Conclusion

This pilot study suggests a high frequency of neck or arm pain symptoms in surgeons that warrants further investigation. Reported symptoms are hypothesized to be related to neuropathy, radiculopathy, or arthritic processes.

Onset of symptoms early in training needs further investigation, as these pathologies may be occurring at a higher rate among surgeons compared to the similar-aged general population. Furthermore, the low rate of ergonomic training prompts the need for further investigation with consideration for inclusion of proper positioning education for both individual and team operating environments, in addition to preemptive physical conditioning within surgical training programs.