

# Do we even lift, bros?



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## Bibliography

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Veronica Bessone, a biomechanics engineer, and Sven Adamson, a gastroenterologist, have conducted an online survey of their gastrointestinal endoscopist colleagues to learn more about musculoskeletal injuries (MSI) related to the practice of endoscopy [1].

Basically, they found that among 100 endoscopists and endoscopy nurses (80 men, 80 older than age 35 years), about 50 to 55 of them had at least one MSI. MSIs were more frequently located in the neck (25), shoulder (20) or thumb (20) and were more frequent in women (15 in 20 women vs. 40 in 80 men). MSIs were also more frequent if participants did more than three procedures or spent more than three hours in the endoscopy room per day. Counterintuitively, having smaller hands was not associated with more frequent thumb or hand injury, but the sample size of endoscopists with small hands was also ...small.

I have one comment.

Osteopenia and sarcopenia may develop with aging [2, 3]. In addition, sustained positions in work or leisure may lead to wear and tear on joints. If they are repeated, injuries compound and eventually are expressed as pain and “*functio laesa*” [4, 5]. What can we, as endoscopists, do about it?

- Avoid performing endoscopies. Not an option.
- Decrease the load on our thumbs and hands in general by changing the way we maneuver the scope. Invendo Medical and Aer-O-Scope have imagined a joystick-like handle for their colonoscopes, but unfortunately, their devices are not currently being used in practice [6, 7].
- Ergonomics training for optimal posture during procedures. An individualized ergonomic wellness approach for the practicing gastroenterologist recently has been proven ex-

tremely useful in reducing or resolving 63% of 22 pain sites [8]. An ergonomic design for our endoscopy units will also help.

- Decrease load on spine, hips, and knees by achieving and maintaining a healthy body mass index (BMI). Although BMI values were not reported in the paper by Veronica and Sven [1], extremes of height and weight values correlated with more frequent MSI. Assuming normal distribution of the sample, extreme BMI would probably have been correlated with MSI. There is strong evidence that  $BMI > 25 \text{ kg/m}^2$  (overweight) or  $BMI < 18.5 \text{ kg/m}^2$  (underweight) is associated with higher frequency of MSI [9].
- Increase muscle mass, especially the so-called “core muscles,” so we may be able to maintain optimal posture [6]. Higher body fat percentage (above 22%), lower muscle mass, and low physical fitness are all associated with risk of MSI [9, 10]. In the current paper [1], participants reported various types of physical activity, and their duration did not correlate with MSI. However, they reported mostly “cardio” physical activities, such as jogging (40%), walking (30%), cycling (30%), and only about 25% reported strength training. Although these activities are excellent for decreasing cardiovascular risk factors, they do not necessarily increase muscle mass and sometimes may predispose to injuries: Very frequent running on hard surfaces may increase the risk of knee osteoarthritis and 60% of riders may develop neck and lower back pain [11, 12]. Strength training has been shown to improve back, neck, shoulder, and arm pain and decrease recurrence of low back pain [13–15]. Core stability exercises are more effective in decreasing low back pain and may improve physical function [16].

As we age, our bodies change. Some changes can be prevented, some changes can be slowed down a bit. Strength training may help and may also prevent us from getting injured. It is not a modern invention. Egyptian tombs show pictures of lifting bags filled with sand and stone swinging and throwing exercises [17].

Let's prevent and slow down age-related changes by lifting some weights.

## Competing interests

The authors declare that they have no conflict of interest.

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