# GASTROINTESTINAL ENDOSCOPY AND MUSCULOSKELETAL INJURIES



## Occupational hazards related to endoscope ergonomics

Although many advancements have been made in the technology and design of endoscopes over the last five decades, the same cannot be said for their ergonomic design. This may have consequences in the form of musculoskeletal injuries (MSI), which can affect productivity and even shorten the career of a GI endoscopist.

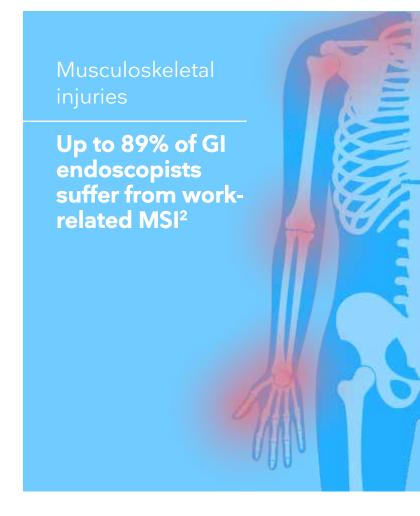
Studies have reported a prevalence of musculoskeletal pain and injuries among Gl endoscopists<sup>1</sup>.

# Intensive muscular demand takes its toll on endoscopists

The high incidence of injury has been correlated with the intensive muscular demand required during a procedure<sup>2</sup>.

In GI endoscopy procedures, such as ERCP, colonoscopy and EGD, contributing factors include<sup>3</sup>:

- Repetitive hand and digit movement
- Prolonged awkward postures
- Continuous application of forces and torques
- Contact stress
- Vibration





## Experts recommend lighter endoscopes when possible

Musculoskeletal injuries are significantly associated with endoscopy procedure volume, and currently, endoscopies typically account for more than 40% of the total duties of GI endoscopists<sup>4</sup>.

Furthermore, heavier endoscopes may be associated with increased rates of overuse injury, resulting in increased static load, which decreases the muscle perfusion and accumulation of lactic acid and can lead to muscle fatigue and pain<sup>5</sup>.

#### The #1 feature of endoscope ergonomics that GI doctors would like to change is the weight

Ambu® aScope™ Duodeno
is the lightest duodenoscope
currently available, weighing
54% less than a typical
reusable scope

29% of clinicians
interviewed believe scope
weight is a cause of injury

Gastrointestinal endoscopy and work-related injuries: An international Ambu survey. 2021



<sup>1</sup>Khaniceh and Shergill, Elsevier, https://doi.org/10.1016/j.tgie.2019.05.003 <sup>2</sup>Khaniceh and Shergill, Elsevier https://doi.org/10.1016/j.tgie.2019.05.003 <sup>3</sup>ASGE Report, https://doi.org/10.1016/j.gie.2010.01.071

<sup>4</sup>Ridetid, GIE, http://dx.doi.org/10.1016/j.gie.2014.06.036

<sup>5</sup>ASGE Report, doi:10.1016/j.gie.2010.01.071

<sup>6</sup>ASGE Report doi:10.1016/j.gie.2010.01.071

"The combination of long, repetitive worktimes with intensive muscular demand has led experts to recommend that, whenever possible, lighter endoscopes should be favoured."

#### aScope Duodeno: designed for control and comfort

aScope Duodeno is a single-use duodenoscope, which is ergonomically engineered for control and comfort during ERCP procedures. Because it is single-use, it gives you a new scope with consistent performance every time, and there's no risk of patient cross-contamination. What's more, there's no need for costly reprocessing or repair.

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