

Social Media and Cervical Laminoplasty: Evaluating Patient Perception and Content Characteristics Across Instagram, Reddit, and YouTube

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Introduction

Social media has become a powerful and accessible source of health information, transforming how patients understand medical conditions, explore treatment options, and engage with healthcare providers. These platforms facilitate direct communication between patients and providers, capture lived patient experiences, and serve as tools for sharing educational content. When used effectively, social media has the potential to improve various aspects of healthcare such as health literacy, provider-patient relationship, and overall patient experience. Posts made by patients offer valuable insight into their perceptions of care and highlight the aspects of treatment they associate most with satisfaction. Understanding the utility of social media in supporting patient-centered care is especially important for surgical procedures, where patient perceptions may offer insights beyond clinical outcomes. While several studies have examined social media use in spine surgery, no research to date has specifically evaluated cervical laminoplasty, a motion-sparing procedure developed to treat cervical myelopathy while reducing postoperative complications. Evaluating social media content related to cervical laminoplasty may help identify patterns in patient perceptions and inform more patient-centered communication and education strategies.

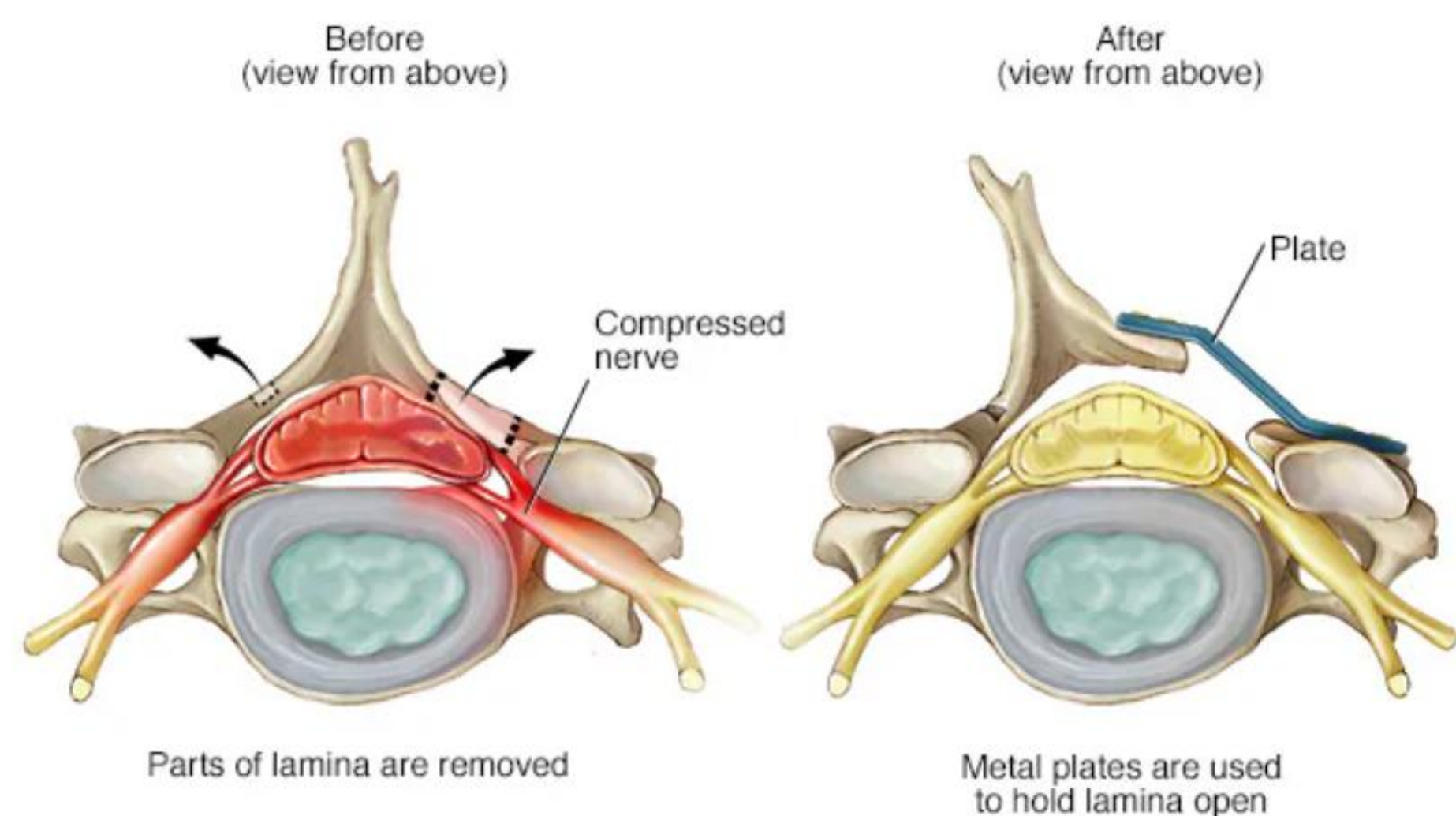


Figure 1. Laminoplasty illustration. Source: Mayo Clinic, 2023. <https://www.mayoclinic.org/diseases-conditions/spinal-stenosis/multimedia/laminoplasty/img-20149228>

Objective and Significance

- Identify and analyze publicly available posts related to cervical laminoplasty on the social media platforms Instagram, Reddit, and YouTube.
- Evaluate content to identify patterns in patient perceptions and differences across platforms.
- Use findings to provide insight into how cervical laminoplasty is represented online and help spine surgeons tailor communication and educational strategies that support patient-centered care.

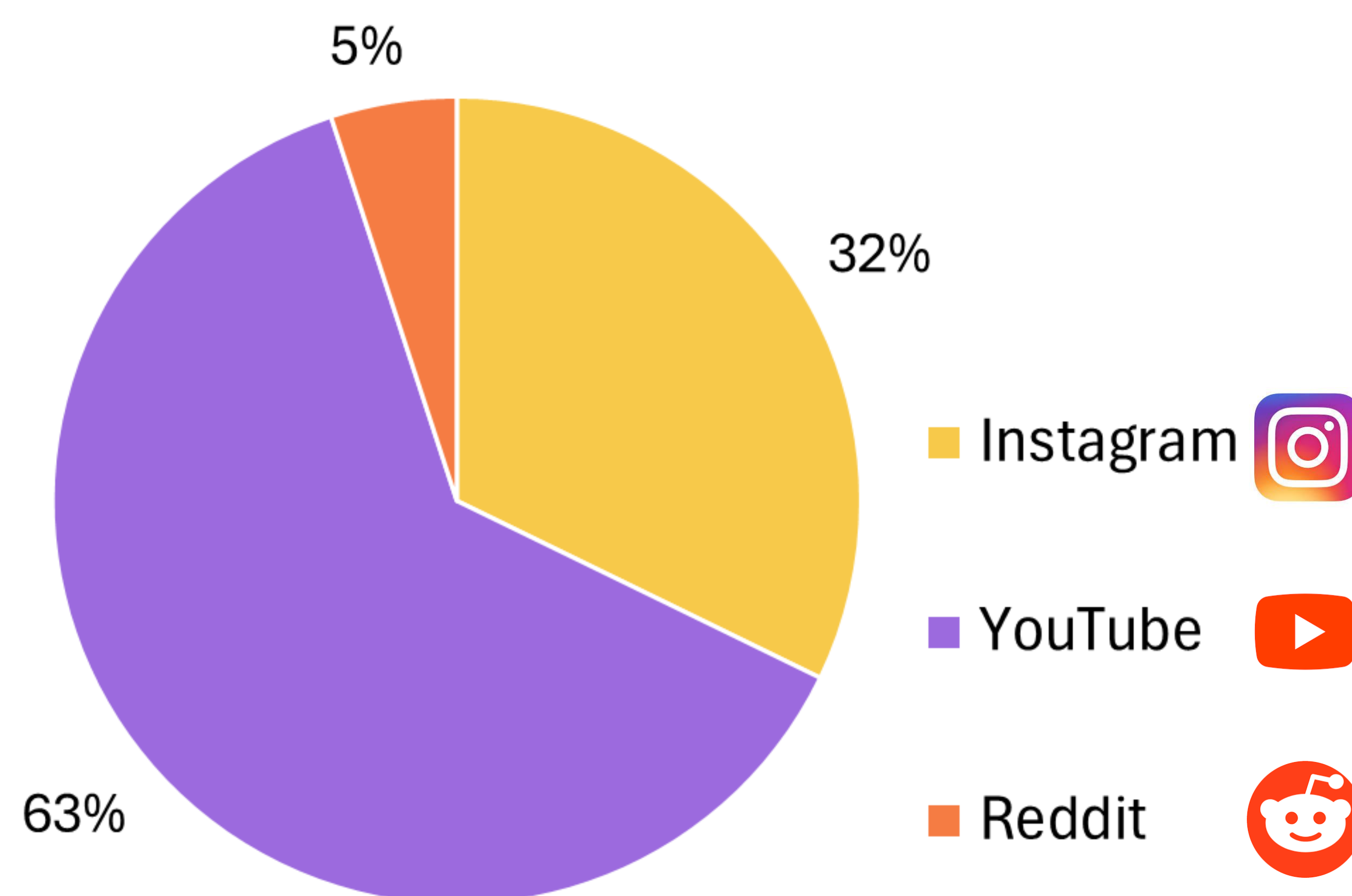
Methods

- Publicly available posts related to cervical laminoplasty were collected from Instagram, Reddit, and YouTube.
- Data was obtained using the Meta Content Library (Instagram), the Reddit public API, and the YouTube Data API v3. Custom Python scripts were used to access, compile, and organize the data for analysis.
- Searches using the keywords and hashtags “cervical laminoplasty” and “laminoplasty” identified public, English-language posts from March 2020 to March 2025; unrelated posts were excluded.
- Two independent reviewers coded posts by tone, phase of care, author perspective, and content type, with discrepancies resolved by consensus.

Results

- Initial searches identified 225 Instagram posts using the hashtag #laminoplasty and 24 posts using #cervicallaminoplasty.
- A YouTube search for the keyword “laminoplasty” yielded 485 videos.
- A Reddit search identified 39 posts and 62 associated comments.
- Data collection has been completed, and thematic analysis is currently in progress. Final results will compare tone, phase of care, author perspective, and content type across platforms.

Distribution of Retrieved Posts by Platform



Initial search results from March 2020–March 2025 across major social media platforms.

Discussion and Limitations

- Preliminary findings indicate that cervical laminoplasty is represented across multiple social media platforms, with YouTube containing the greatest volume of related content. We hypothesize that most YouTube content will be educational and presented from the perspective of physicians.
- This study highlights the potential role of social media as a tool for improving patient-provider relationships by examining the personal perspectives of care shared online. We believe that studies like this are essential for understanding how social media can be used to enhance health literacy and disseminate high quality information, ultimately helping patients become more informed about their care. Understanding patient perspectives of laminoplasty may also inform how surgeons interact with patients to better align expectations, leading to greater satisfaction and improved overall experiences.
- Limitations include restriction to English-language posts and potential sampling bias from hashtag-based and platform-limited searches. Posts are de-identified, so demographic and outcome data could not be assessed.
- Ongoing coding and analysis will characterize post tone, phase of care, author perspective, and content type, allowing for cross-platform comparison and identification of trends in patient sentiment and informational focus.

Future Directions

- Complete characterization of posts, identify trends through statistical analysis, and evaluate differences across platforms.
- Explore the implications of these findings for patient education, perception, and satisfaction while identifying opportunities for future studies on the use of social media as a tool for public health and patient engagement.

References

- Saleh J, Robinson BS, Kugler NW, Illingworth KD, Patel P, Saleh KJ. Effect of social media in health care and orthopedic surgery. *Orthopedics*. 2012;35(4):294-297. doi:10.3928/01477447-20120327-05
- Cho SK, Kim JS, Overlay SC, Merrill RK. Cervical Laminoplasty: Indications, Surgical Considerations, and Clinical Outcomes. *J Am Acad Orthop Surg*. 2018;26(7):e142-e152. doi:10.5435/JAAOS-D-16-00242
- Rizkalla JM, Holderread B, Hotchkiss W, et al. Instagram and Spine Fusion: An Analysis of Social Media and Its Relationship to Patient Perception of Surgery. *Glob Spine J*. 2023;13(3):617-620. doi:10.1177/21925682211001814