



Optimization of Modifiable Clinical Risk Factors Before Elective Hernia Repair May Minimize Inguinal Hernia Recurrence

In a study published in *Hernia*, Kaiser Permanente General Surgeons and Medical Device Surveillance & Assessment Researchers identified risk factors for reoperation due to recurrence following index inguinal hernia repair.

Prehabilitation programs, commonly used for advanced abdominal wall reconstruction, could also benefit patients with inguinal hernias and help mitigate risk factors to lower recurrence rates and ensure strong, long-lasting repairs.

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Study Details

The study cohort was comprised of 125,133 patients 18 and older who underwent first inguinal repairs with mesh from 2010-2020. Laparoscopic, robotic, and open procedures were included. The association of patient demographics and surgical characteristics with ipsilateral reoperation during follow-up was modeled using Cox proportional-hazards regression. Risk factors were selected into the final model by stepwise regression with Akaike Information Criteria.

- Cumulative incidence of reoperation after inguinal hernia repair was 2.4% at 5 years.
- Risk factors associated with a higher reoperation risk regardless of surgical approach include age (≥ 50), female gender, and higher body mass index (>35).
- Risk factors dependent upon approach include white race, bilateral procedure performed, chronic pulmonary disease, diabetes, drug abuse, and peripheral vascular disease.

Practice Considerations

Modifying the existing clinical risk factors before elective hernia repair may minimize inguinal hernia recurrence.

- Risk factors include maintaining normal nutritional labs, a BMI <35 , having HbA1c <7.5 , remaining nicotine-free for 2-4 weeks, and controlling COPD and obstructive sleep apnea.
- Inguinal hernias, a type of abdominal wall hernia, are hypothesized to be influenced by similar factors and may follow the same preoperative guidelines. Therefore, prehabilitation programs used for advanced abdominal wall reconstruction can be extended to include inguinal hernias.

[Link to Full Publication](#)

Park CL, Chan PH, Prentice HA, Sucher K, Brill ER, Laxa B (2023). **Risk factors for reoperation following inguinal hernia repair: results from a cohort of patients from an integrated healthcare system** *Hernia*, 27 (6): 1515-1524.