

# Development and Validation of a Rib fracture-specific Quality of Life Instrument (RIB-QUAL): An International Chest Wall Injury Society Study

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## Objective

To determine validity, reliability, and other measurement properties of the RIBQUAL instrument in patients with chest wall injuries.

## Introduction

Quality of life has become a core metric in the evaluation and management of patients with rib fractures.

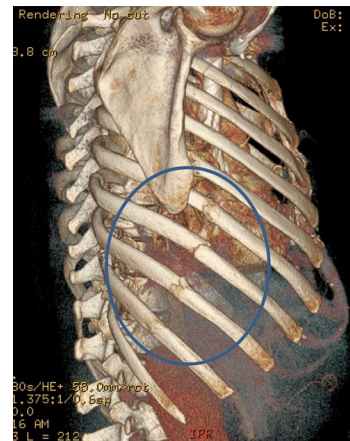
Significant variability exists in instruments used to evaluate this outcome in this patient population. None of the quality-of-life metrics used to date are designed to assess outcomes following rib fractures. Previous questionnaires lack assessment of rib fracture specific complications.

As this field of research grows, the need for a specific and validated assessment instrument for evaluation of quality of life after rib fractures has become increasingly important. A strong assessment tool validated and correlated to objective clinical outcomes with reliable and responsive measures will allow for consistent analysis and comparison of therapeutic interventions and management strategies.

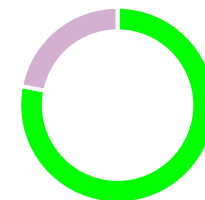
## Methods

Any patient meeting study criteria (i.e., patients with rib fractures, ages  $\geq 18$  to  $\leq 99$ ) will be asked to participate. The Rib-Qual questionnaire will then be co-administered along with one other previously utilized survey, the SF-36, to assess for correlation and validation of this new instrument. Patients will be asked to fill out the questionnaires at two time points, one week apart.

**This study is actively enrolling patients.**



Screened Patients

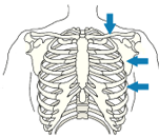


- Denver Medical 250
- Saint Francis Hospital 70

Is English your first or native language?  
 Yes  
 No

### RibQual: Rib Fracture Quality of Life Questionnaire

This questionnaire asks about how you experience your health and complaints that you may have related to your ribs, which you also may feel in your upper back, chest, or shoulder. This information will help to keep track of how you feel and how well you are able to do your usual activities. The questionnaire has 17 questions and takes about 10 minutes to complete. For each of the following questions, please mark the answer that best describes your situation.



#### Pain

- During the past week, how often did you need to take **opioid pain medications** (for example, oxycodone, fentanyl, or Dilaudid (hydromorphone)) due to pain in your ribs?  
 Never  
 Once a week  
 Multiple times a week  
 Daily  
 Multiple times a day
- During the past week, how often did you need to take non-opioid/over the counter **pain medications** (for example, Advil (ibuprofen), Tylenol (acetaminophen)) due to pain in your ribs?  
 Never  
 Once a week  
 Multiple times a week  
 Daily  
 Multiple times a day
- During the past week, on average **how much pain** did you have in your ribs during the following activities?

	No pain ☺	Mild pain ☹	Moderate pain ☹	Severe pain ☹
At rest/normal breathing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deep breathing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coughing/sneezing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Twisting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>