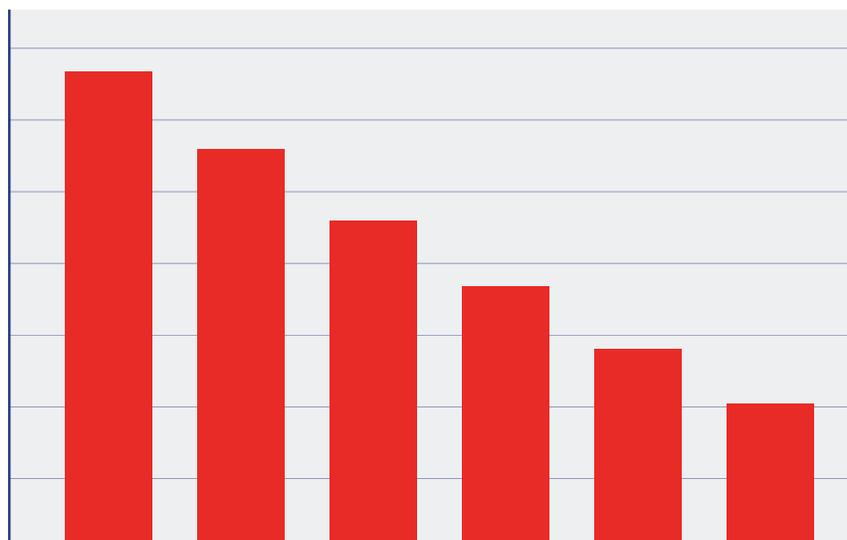

SPECIAL REPORT

How to Reduce Your Workers Compensation Indemnity Costs



**A New Functional Capacity Evaluation
with 99+% Accuracy**

By Sam McKelvy, PT, MBA, CEAS

When employees get injured at work, how long does it take your company to recover?

North Carolina

In North Carolina, the average indemnity payment per claim with more than seven days of lost time is \$28,279.

NC worker's compensation (WC) indemnity is among the highest of the 18 states in a study from the Workers Compensation Rating Institute (WCRI). For all 18 states, the median indemnity is \$18,269.¹

The average duration of temporary disability in NC is 20 weeks, which is 30% longer than the study median of 14 weeks.

Nationwide

The direct costs of injury covered by a workers' compensation claim include the medical costs and any indemnity (wage replacement) payments.

Because of the high cost of health care, the direct costs paid by workers compensation for many employee injuries can be significant. For instance, the direct cost of a fracture is \$50,000.²

WC does not cover indirect costs. These can include, but are not limited to, the following:

- Any wages paid to the injured employee for absences not covered by workers' compensation.
- Wage costs related to time lost through work stoppage associated with the worker's injury.
- Overtime costs.
- Time spent by administrators, supervisors, safety personnel, and others who handle the claim.
- Cost of hiring and training a replacement worker.
- Lost productivity related to work rescheduling, new employee learning curves, and accommodating the injured employee.
- Cost to clean up, repair, and replace equipment and machinery damaged by the accident.
- OSHA fines.
- Third-party liability costs.
- Legal fees.
- Worker's pain and suffering.
- Loss of good will.

According to a December 2017 Benchmark Study, WC provides benefits to 135.6 million US workers annually, costing employers over \$94 billion.

Data from the National Council on Compensation Insurance's Workers Compensation shows that one of the most costly lost-time workers' compensation claims is for injuries caused by motor vehicle

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crashes, averaging \$73,559 per claim filed in 2015 and 2016.³ Total medical spend nationally averages more than 50% of overall workers' compensation claim costs.

Only one-third of organizations measure provider performance and outcomes. The *New England Journal of Medicine* says patients receive proper diagnosis and care only 55% of the time.⁴

Why indemnity escalates

Nationwide, the Coalition Against Insurance Fraud reports: "Workers comp fraud is a large crime in America today. Tens of billions of dollars in false claims and unpaid premiums are stolen every year."⁵

In 1% to 2% of workers' comp cases⁶, indemnity is increased because of failure to accurately measure the time it takes for the employee to fully recover.⁷ Causes include antiquated functional capacity evaluation testing methods and deliberate lack of cooperation from injured workers.

About 20% of employees injured are delayed in returning to work for various reasons. Of those, almost two-thirds, according to our testing numbers, are feigning weakness by not giving a full effort when tested.

With standard functional capacity evaluations (FCE), WC patients being evaluated can easily under-perform on the FCE with a deliberate sub-par effort.

Lack of cooperation usually goes undetected. Indemnity increases as poor FCE performance enables workers to remain on WC leave longer.

In addition, the Supreme Court has ruled that only tests based on scientific methods producing hard data are defensible in court, while evaluations based only on visual inspection and subjective judgment are not.

Detecting deliberate under-performance in FCEs with XRTS Assessments

Conventional FCE systems are ineffective at identifying when the test subject is making less than his best effort. Reason: standard FCE does not gather sufficient data and is limited by subjective interference.

A new FCE technology, the Cross-Reference Testing System[®] (XRTS[®]) for Material Handling and Hand Strength Assessments, has eliminated these flaws. The result: XRTS enables unprecedented accuracy in identifying workers who are feigning weakness.

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XRTS Material Handling Assessment

The evaluator has the employee use the XRTS Lever Arm (Fig. 1) to establish a set of baseline lifts. The mechanics of the XRTS Lever Arm stimulate the motion of lifting a box.

Next, the employee repeats more of the same lifts on the XRTS Lever Arm. The evaluator compares the employee's reported maximum efforts to workloads of different physical appearance. XRTS FCE results are determined through statistical analysis, not clinician interpretation. This eliminates subjectivity and evaluator bias.

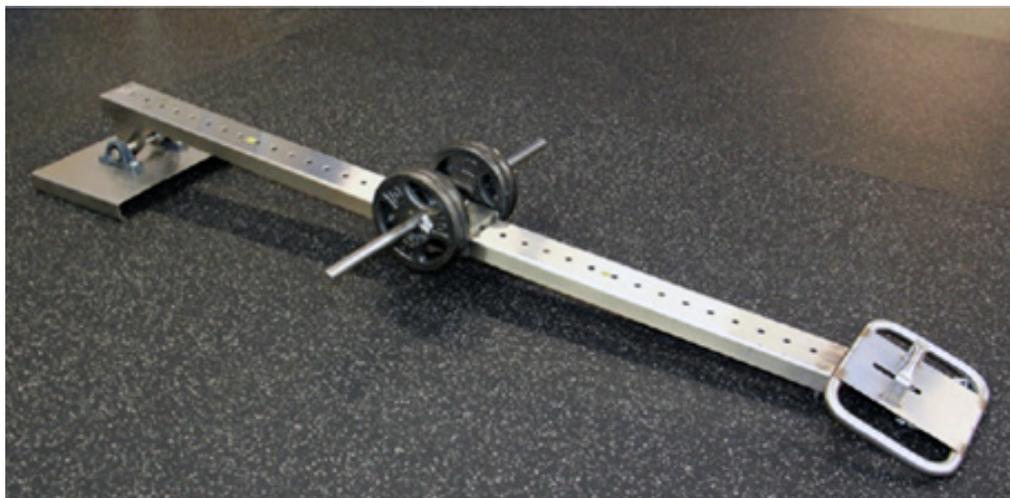


Fig. 1. The XTRs Arm Lever is precision-built in a manufacturing facility equipped with a Quality Management System that complies with ISO 9001:2008.

In the landmark case *Daubert vs Dow*, the Supreme Court ruled that admissible evidence *must have a scientific basis rather than just expert opinion*.⁸

This means that pain questionnaires, intake interviews, and clinical assessment based solely on the subjective opinion of an evaluator are *not* defensible proof.

With most standard FCEs, the validity of the claimant's performance is not objectively, scientifically, or definitively assessed. This makes these FCE tests of no value, because the quantification of function is totally dependent upon on an accurate assessment of validity of effort.⁹

British scientists Lord Kelvin said it best: "When you can measure something, and you can express it in numbers, then you know something about it."

In sharp contrast, the criteria used by the XRTS FCE to compare calculated results has been subject to peer reviews with known specificity and sensitivity measurements. Sensitivity identifies sub-maximal effort and specificity identifies maximal effort. **The XRTS FCE has a specificity rate of 99.9%.**

This means there are virtually no false positives. Obviously, a subject identified as giving maximal effort cannot be giving sub-maximal effort, and is therefore performing to the best of his ability.

XRTS Hand Strength Assessment

The XRTS Hand Strength Assessment is a new protocol to detect insincere effort during grip and pinch strength testing. The XRTS Hand Assessment protocol uses standard gauges but in a mechanically different way to administer the bilateral trials. The protocol is a randomized series of 66 trials of unilateral and simultaneous bilateral grip and pinch strength measurements.

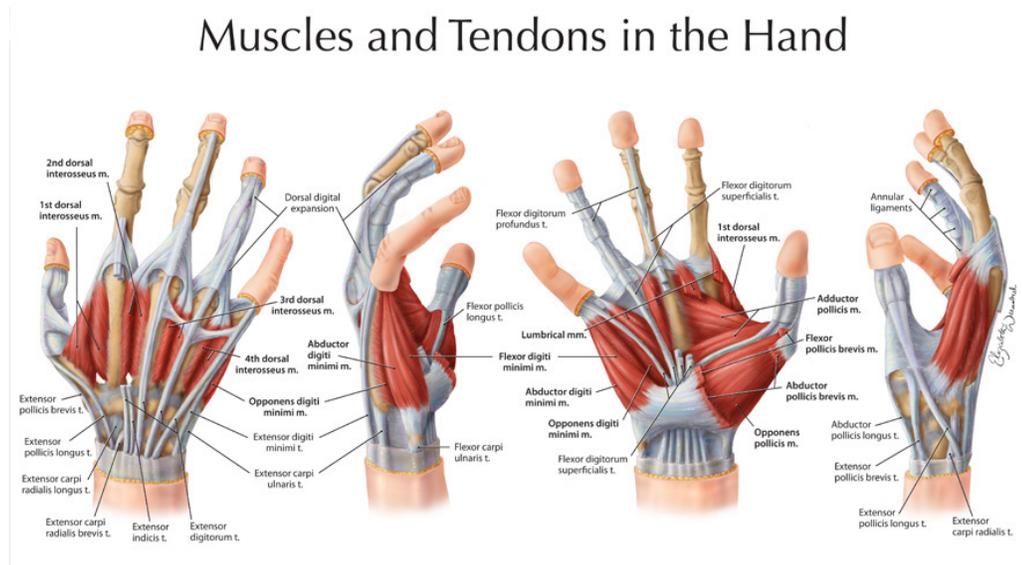


Fig. 2. Hand testing identifies both muscular ability and pain in particular for gripping.

The XRTS protocol accuracy is 99.5%. By comparison, the accuracy of the Bell Curve test is 70%. Criteria for identifying feigned weakness were developed by identifying measures specific to individuals known to be giving a perceived 50% effort. The XRTS Hand Strength Assessment also incorporates simultaneous bilateral testing, which is unique to this testing protocol.

Why standard FCE tests don't work¹⁰

Bell Curve

The Bell Curve as first described by HM Stokes had only two subjects, one which Stokes believed was giving a good effort and another he believed was giving an inferior effort. Other than Stokes, there are no published controlled studies supporting the accuracy of the Bell Curve.

Rapid Exchanging Grip (REG)

In REG testing, the subject exerts rapid repeated grips while alternating the gauges between each hand.

Variables that make REG unreliable include the length of time the grip is exerted, the speed at which they the grip is switched from hand to hand, and measurement of force when the gauge is accidentally bumped rather than gripped. Seven published studies all conclude that REG testing is not accurate for classifying validity of effort.

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Visual Estimation of Effort

Standard Visual Estimation of Effort (VEE) during lifting tasks does not accurately classify relative levels of exertion. Nor does VEE distinguish between incomplete feigned effort lifts vs. lifts that are potentially too heavy to perform safely.¹¹

The variables in VEE – muscle recruitments, body mechanics, base of support, posture, control, safety – are observations, not measurements. There is no published controlled study explaining how such observations can be made uniformly between all evaluators.

Visual Observations

Physical measurements allow precise and quantitative feedback on the effort expended by the subject. On the other hand, visual observations are subjective. They include facial expressions, verbalizations, vocalizations (e.g., groaning); gait pattern, reported tenderness in response to exertion, and ratchet-like start and stop movements through the range of motion.

There is no published evidence that any of these observations are either quantifiable or objective.¹² Their accuracy rate is not much better than chance.

Isometric Testing

The two most common isometric tests are the leg lift and the arm lift. In the only published controlled study on both of these isometric measurements, COV or coefficient of variation (the degree of variability within a set of data) fails to identify feigned weakness at least 50% of the time.

Isometric assessment also inaccurately produces false positives: incorrectly labeling the effort of a cooperative individual as being insincere and therefore invalid.¹³

Why XRTS outperforms standard FCEs

Developers of the XRTS incorporated 3 basic elements to ensure the validity of this superior testing method:

- Repeated measures to assess the reproducibility of the data, based on the fact that data which are reproducible are reliable and valid.
- Standard statistical analysis is applied to all results consistently and in a uniform manner. A robust analysis of this data removes evaluator bias.
- Significant distraction involves changing the visual appearances of three different workloads on the lever arm. The odds of an individual accurately estimating the 3 workloads are 1.5%. When variability is excessive, performance is classified as invalid.

In one of the largest controlled studies in the field, the XRTS Hand Strength Assessment was found to be 99% sensitive in the identification of feigned weakness and 100% specific in identification of maximum effort—an accuracy unmatched by any standard FCE.¹⁴

Resolving protracted WC cases with XRTS

A large local employer has about 200 cases that are a year old or older. This accounts for approximately 30% of their total injuries. Can you imagine the drag on their resources?

Can those cases be resolved? Yes. But you need defensible information regarding the subjects' abilities. The XRTS FCE gives you that information. It gives you a scientific, statistically valid answer to the question, "Did these workers give their best effort on the lifting and hand strength evaluation?"

One advantage of the XRTS is that it is an easy and accurate way of getting to the truth about workers' injuries. By doing so, XRTS gets them back to work sooner to save the company money and minimize lost productivity.

In addition, worker's compensation is often the biggest insurance premium a business pays. And when claims payments are protracted, they cost more. Many insurance companies in all fields – worker's compensation, homeowner's, and auto – increase the premiums significantly for insureds with frequent or expensive claims.

Conclusions

XRTS users seek to efficiently get the best and most accurate results of FCEs to the different fields that come in contact with it. These include employers, physical therapists, attorneys, and third-party administrators. The efficiency enabled by the XRTS FCE's 99+% accuracy rate, unduplicated by any other evaluation method, would help American business significantly reduce both direct and indirect costs of employee injury in worker's compensation cases.

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About Sam McKelvy, PT, MBA, CEA



Mr. McKelvey has been a licensed physical therapist since 1996 and has specialized in worker's compensation issues since 2005. His company, Restoration Physiotherapy is an independent physical therapy office based in Charlotte, NC focusing on worker's compensation cost mitigation through FCEs, work conditioning, physical therapy, job analyses, and job testing.

In addition to Charlotte, Restoration Physiotherapy also provides services in Hickory, NC, Winston Salem, NC, Columbia, SC and Greenville, SC. Other locations can be served by appointment.

If you would like to discuss work comp cost mitigation, or to learn more about XRTS FCE, visit www.restorationphysio.com or call 704.654.9838 today.

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