



Cross-Reference Testing System
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2009: Celebrating 26 Years Of Horseshoes and Hand Grenades



The assessment of validity of effort during functional capacity evaluations began 25 years ago with the publication of HM Stokes' wonderfully-titled study "The Seriously Uninjured Hand" which appeared in *the Journal of Occupational Medicine* in 1983 (Vol. 25, No. 9, pgs. 683-4). Just about everyone has heard of the "Bell Curve" which Stokes said occurs during the assessment of hand strength when the patient is cooperative. **Few people are aware that the Stokes study had only two subjects, hardly a scientific basis for the conclusion that was drawn. This study has become a metaphor for how validity of effort research has been conducted in this field.**

The truth is quite simple, when it comes to assessing effort during hand strength testing, the "standard" tests are about 70% accurate---and most of the error is in the detection of feigned weakness. In fact if there is an industry standard for accuracy in the classification of effort it is "somewhere around 70%." Who says that "standard" hand strength assessments are only 70% accurate? Look up the sources we cite below.

Published Studies Which Debunk "Standard" Hand Strength Testing Methods

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The Solution?

Schappmire D, St. James J, Townsend R, Stewart T, Delheimer S, Focht D. Simultaneous Bilateral Testing: Validation of a New Protocol to Detect Insincere Effort During Grip and Pinch Strength Testing, *Journal of Hand Therapy*, July-September 2002, Vol. 15, No. 3, pg. 242-250 is the only controlled study using the most commonly-used grip and pinch gauges, that has been shown to be highly effective in the classification of effort. In this study, 199 of 200 sets of data were properly classified---99.5% accuracy. This protocol is now in use in 25 states. [Download four other peer-reviewed studies from our web site.](#)

The assessment of lifting is the other substantially weak component in functional testing when it comes to classifying effort. The Isernhagen, Blakenship, Matheson, Key and ErgoScience, BTE and all other commercial protocols rely on “visual estimations of effort.” What does that mean? It simply means that the test administrator watches the claimant perform a lift and gives you an opinion as to whether or not a maximum effort was given. These systems have justified their protocols with the publication of a string of “inter-rater,” “intra-rater” and “test-retest” studies. For some reason, we thought that our referrals sources wanted an accurate classification of the claimant’s effort!



The X-RTS Lever Arm, right, helps classify effort during a lifting evaluation. No more guessing. No more eyeball estimations. Just good comparative science. Testing with distraction. No computer. Just plain old leverage. State of the science in assessing effort. Call us if you have a difficult case. We will use our new “state of the science” evaluation Tools—the X-RTS Lever Arm and Hand Strength Assessment—to help you bring your case to closure.