

Pre-Hire Physical Abilities Testing: A PREVENTION OPPORTUNITY FOR EMPLOYERS



ERGOSCIENCE.COM
VISIT OUR BLOG: *THE WELL WORKPLACE*

 **ErgoScience**
Helping the World Work

TABLE OF CONTENTS

Introduction:

THE VALUE OF PRE-HIRE PHYSICAL ABILITIES TESTING **3**

Chapter 1:

THE OPTIMAL SEQUENCE FOR TESTING **4**

Chapter 2:

PITFALLS TO AVOID **5-6**

Chapter 3:

STEPS OF THE PROCESS **7-12**

Chapter 4:

EVIDENCE IN SUPPORT OF EFFECTIVENESS **13-15**

Conclusion:

CONCLUSION **16**

Introduction:

THE VALUE OF PRE-HIRE PHYSICAL ABILITIES TESTING

One of the most valuable resources for any business is its employees. Several factors, however, affect employers' existing applicant pool. Unfortunately, job applicants are increasingly heavier, more out-of-shape and older. As the total number of qualified job applicants shrinks, hiring and retaining qualified workers is the greatest challenge employers face. Valuable resources are wasted if employers hire and train new employees only to find out that they do not have the physical ability to perform the job.

Pre-hire physical ability testing serves both the employer and employee through injury prevention. However, there are some important medico-legal and compliance issues to consider when doing pre-hire testing. In addition, there are specific steps that must be followed in setting up these screens to ensure that they are EEOC, ADA and OFCCP compliant. Finally, you will want to have some idea about the kind of results you can expect with the testing.

THE OPTIMAL SEQUENCE FOR TESTING

Pre-hire physical ability testing is best performed **after** a conditional offer has been made. The Equal Employment Opportunity Commission (EEOC) has published *Enforcement Guidance: Pre-employment Disability-Related Questions and Medical Examination* as well as other guidelines related to pre-employment screening that can be accessed online at <http://www.eeoc.gov/policy/docs/preemp.html>. According to the EEOCs guidelines, medical examinations (such as monitoring blood pressure and heart rate) can be performed only **after** a conditional offer has been made.

Performing strenuous physical testing, such as is often the case in pre-hire physical ability testing, without monitoring these physiological parameters, puts everyone at risk. In addition, post-offer testing is more cost-effective for employers as they do not have to screen every applicant, only the ones to whom they make a conditional offer.



Chapter 2: **PITFALLS TO AVOID**



In addition to avoiding pre-offer screens, there are some other pitfalls to avoid in pre-hire Physical Abilities Testing.

General Strength Testing. The concept of a one-size-fits-all generic strength test (such as a set of push-ups, sit-ups, aerobic step tests or isokinetic strength tests) is appealing because of its simplicity and ease of administration. However, such tests are not ADA compliant because they cannot be directly correlated to the demands of the job. The vast majority of law suites lost by employers have been related to generic strength testing.

Chapter 2:

PITFALLS TO AVOID

Comparison to Normative Data. In pre-employment screening, the ADA is violated when hiring decisions are made based on a comparison of the applicant to normative data. It does not matter whether the applicant is in the 5th percentile or the 95th percentile as compared to a group of “norms.” What matters is whether their abilities match the job demands. If the applicant’s abilities match the job demands, the employer can hire and place the applicant. If the applicant’s abilities do not match job demands, they can rescind the offer. Further, employers do not have to make a reasonable recommendation for the applicant unless the applicant is a person with a disability.

Predicting Future Injury. Some providers market their services by claiming to be able to predict future injury. Unless there is solid data to back this up, it is best to avoid this potentially litigious claim. Instead, test the abilities of workers to determine if there is a match to job demands. By focusing on the match between the worker’s abilities and the demands of work, you can minimize the chance of injury and associated costs. Maintaining focus on the matching process is a defensible strategy. Predicting future injury is seldom defensible.



STEPS OF THE PROCESS

To develop valid, legally defensible, and cost-effective pre-hire physical abilities testing, there are several steps that should be followed:

- 1** *Target the jobs.* You may not need to screen for all jobs within your organization; a few jobs may be creating most of the injuries. Looking at the injury data can help identify the jobs that should be screened.
- 2** *Perform job demands analysis.* A good analogy of the relationship of job analysis to pre-hire testing is that of a house and its foundation. Identifying the physical demands of work is the foundation on which defensible pre-hire physical abilities testing is built. If not performed accurately, the results of the job analysis will not reflect the job demands. If screens are built upon inaccurate job descriptions, employers may find themselves at risk. Of note: while you may be reluctant to invest in job demands analysis, it is money well spent in the long run. Pre-hire physical ability testing should address the most physically demanding aspects of any job.

Chapter 3:

STEPS OF THE PROCESS



- 3** *Develop the test items and pass/fail criteria.* Once an accurate job analysis is performed, selecting the test items and minimal requirements is the next step. In cases where materials or equipment create unusual demands, it may be best for an employer to loan their equipment or material to evaluators for a simulation of the work demands.

STEPS OF THE PROCESS

4 *Use a Validated Testing Protocol:* The EEOC places great emphasis on the reliability and validity of pre-hire tests, so it is extremely important to use a physical abilities testing protocol with published reliability and validity, research as the basis for test development when possible.

5 *Establishing procedures.* There are a variety of procedural issues that will have to be resolved before initiating testing:

- *How will applicants be referred to the clinic?*
- *Where will testing occur?*
- *How will test results be handled?*
- *How will test failures be handled?*
- *What will the processes be for applicants whose resting blood pressure exceeds safe levels for testing?*
- *How will the evaluator deal with any injuries that will occur during testing?*
- *How will pregnant applicants be handled?*

STEPS OF THE PROCESS

There are no hard and fast rules for any of these decisions—it's up to your organization. Each employer handles the administrative procedures just a little differently. The important issue is procedure consistency within your organization. Once policies are in place for a specific job, they must be followed for each and every applicant applying for that job until they are changed.

- 6** *Testing Incumbents.* Many employers are reluctant to test incumbents to further validate the test before applicant testing begins. They fear current employees will perceive it negatively. To overcome this fear, employees must be reassured that their test results will not be shared except as aggregate data (i.e. an individual's test results are not shared, but the employer will be told that 9 out of 10 employees passed the test). While this step is not the easiest to accomplish, it is extremely beneficial if the validity of the test is called into question. Incumbent testing provides valuable additional proof of the validity of the test. It can also be used as a mini feasibility study. If there are any communication, procedural or equipment problems with the process, then it is best to discover and correct these during incumbent testing than to have them occur when applicants are being tested.

Chapter 3:

STEPS OF THE PROCESS

7 *Follow Up.* Once the testing of applicants begins, you will want periodic updates on the pass fail rates. The test items that are most frequently failed are essential for maintaining the program's success. It is also important to know fail rates for women compared to men and if there are significant failures in a specific age or ethnic group. If the selection rate of any minority group is less than 80% of the selection rate of the majority of applicants, then the company may be creating adverse impact with the screens. Adverse impact does not mean you must stop screening, just that you will need to make sure the screens are defensible. If the job demands analysis and screen development have been done appropriately, defensibility should be no problem. In addition to pass fail rates, if employers track their work-related injury costs before and after initiation of the program, this information can provide powerful justification for continuing or expanding the screening.



Chapter 3:

STEPS OF THE PROCESS

8 *Review Job Demands Over Time.* Job demands can change as the products and services of an organization change. Therefore, it is important to establish open lines of communication within your organization and between your organization and the group that developed the test so that screens can be updated in a timely fashion. For example, in a manufacturing environment, changes in the production lines need to be communicated to test developers who must then revise the screens so that accurate testing may continue.



EVIDENCE IN SUPPORT OF EFFECTIVENESS

There have been several research studies published that speak to the effectiveness of pre-hire physical abilities testing. Reimer et al studied the effectiveness of pre-employment screening combined with a worker fitness program for grocery warehouse workers. They found significant decreases in injuries and injury-related expenses over a 3.5-year period.

Nassau combined pre-work placement screening and case management for injuries that occurred. This study, performed at a 250-bed hospital, found that the number of injuries did not decrease, but the severity of injuries was significantly less.



EVIDENCE IN SUPPORT OF EFFECTIVENESS

Gassoway and Flory performed screening on nursing assistants at a regional health center. They found a slight decrease in injuries requiring medical intervention, but a more significant decrease in job turnover rate. This study showed that the company saved \$6 for every \$1 spent on screening.

In a study that presents perhaps the strongest evidence to date in support of pre-hire physical abilities testing, Littleton tested physical plant applicants at a major university hospital and found that the number of lost day cases decreased 18%, the total injury costs decreased 78%, and that for every \$1 spent on pre-hire testing, the employer saved \$18. The added benefit of these last two studies is that pre-hire testing was the only intervention used.

Further, a study of 468 employees found that new hires that passed an ergonomically based functional pre-hire test exhibited 47% less injuries than those who failed the test, and were 21% more likely to still be employed 8 weeks post hire. In a separate study, the same authors examined the musculoskeletal injury rate for employees one year prior versus one year post implementation of the test for 174 additional companies. Injury reduction rates amongst hired employees (those who passed the test) ranged from 37% to 54% across a wide range of industries and geographic areas.

EVIDENCE IN SUPPORT OF EFFECTIVENESS

Additionally, Harbin and Olsen divided subjects into matched and mismatched groups based on their assessed DOT classification level as matched to the DOT classification of their job. The odds ratio of injury was much higher amongst the mismatch group. The second phase of this study backed up these findings. After implementation of pre-hire physical ability testing, the severity of injury as measured by the cost of medical care declined 86% and resulted in 99% fewer lost workdays.



Finally, a four-year study designed to test whether pre-hire physical abilities testing was cost effective if implemented company-wide at a large multinational industrial employer found that of employees who passed the screen and were known to have the physical capabilities to perform their jobs, only 1% injury rate occurred over the four years of the study. Of those who were not screened, a 23% injury rate was found.

In summary, pre-hire physical ability testing presents an important opportunity to prevent work-related injuries. As a general rule of thumb, it can decrease injuries between 30% and 60%! Test developers and employers need to have knowledge regarding the medico-legal issues surrounding testing. Reliable and valid assessment tools must be used, and everyone involved must know how to effectively apply them in a systematic and consistent manner.

Briggs J. *A Study on the Effectiveness of Ergonomically Based Functional Screening Tests and their Relationship to Reducing Workers' Compensation Injuries.* *Work.* 2008;31(1): 27-37.

Gassaway J, Flory V. *Pework screen: Is it helpful in reducing injuries and cost?* *Work* 15 (2000), 101-106.

Harbin G, Olsen J. *Post-offer , pre-placement testing in industry.* *Am J Ind Med.* 2005; 47:296-307.

Lechner DE, Jackson JR, Roth DL, Staaton KV. *Reliability and Validity of a Newly Developed Test of Physical Work Performance.* 1994;36(9):997-1003.

Lechner DE, Sheffield GL, Page JJ, Jackson JR. *Predictive Validity of a Functional Capacity Evaluation: The Physical Work Performance Evaluation.* *Phys Ther* 76:881m 1996.

Littleton M, *Cost-effectiveness of a prework screening program for the University of Illinois at Chicago Physical Plant.* *Work* 21 (2003),243-250.

Nassau DW. *The Effects of Pework Functional Screening on Lowering an Employer's Injury Rate, Medical Costs, and Lost Work Days.* *Spine* 02/01/1999; 24(3): 1-10.

Reimer DS, Halbrook BD, Dreyfuss PH, Tibiletti C. *A Novel Approach to Preemployment Worker Fitness Evaluations in a Material-Handling Industry.* *Spine* 1994;19(18):2026-2032.

Scott L. *Post Offer Screening*

U.S Equal Employment Opportunity Commission. *EEOC Notice #915.002: ADA Enforcement Guidance: Preemployment Disability-Related Questions and Medical Examinations.* 10/10/1995; 1-26

Want more information? Contact us today!

FREE Injury Analysis Consultation

Learn the most cost-effective approach to address your most common worker injuries.

[Sign up now!](#)



Ergoscience.com • Visit our Blog: *The Well Workplace*



email: info@ergoscience.com

tel: 205.879.6447 • **toll free:** 866-779-6447 • **fax:** 205-879-6397
402 Office Park Drive, Suite 260 • Birmingham, AL 35223