

Post Offer Screening

by Liz R. Scott, PhD, BSc, MEng, MBA, MSc, COHN-S, RN, CRSP
Section Editor: Joy Wachs, PhD, APRN, BC, FAAOHN

Work related injuries cost companies billions of dollars each year. The direct cost of employee disability adds up to 6.3% of total United States payroll (Watson Wyatt Worldwide and the Washington Business Group on Health, 2001). Employers are realizing one method of combating these rising costs is to screen prospective employees to determine their suitability for particular work and particular work environments. The use of this preventive tool to assess candidates' functional abilities prior to job placement is increasing (Dakos, 2001). Employers are seeking occupational health professionals who can provide them with accurate, valid, and reliable screening processes. This article introduces the process of post offer screening, reviews current published research in the area, and presents a summary of a research study.

HISTORY

Traditionally, little emphasis has been placed on the functional screening of prospective employees. Many manufacturing industries hire employees to perform labor intensive jobs without a record of past medical history or without performing any physical screening or examination. The concept of pre hire screening has existed for many years. However, the value of screening without the post offer objective focus is questionable. A pre-employment study by Houghton (1989) used a medical questionnaire based on "reasons for sickness and retirement on health grounds," and found post offer screenings using verbal questionnaires had no significance on the outcome of post hire illness behaviors. According to this study, "It is clear that pre employment screening under these circumstances is inefficient and ineffective" (Houghton, 1989).

Employment related screening has gone from reviewing an employee's health status and history prior to job offer to the current practice of offering employment and then ensuring the employee has the physical capabilities to perform the job. The initial collecting of health history information often consisted of questions related to an individual's overall health, including blood pressure, weight, health history, and past surgeries-components having little to do with the actual execution of the task at hand. Although this information is, perhaps, helpful to have on record if the individual has an emergency at work, the process of collecting such information did not focus on the worker's capability to perform the job.

Daly-Gawenda (1986) examined reasons why employment related screening was conducted, finding results were utilized to provide health counseling, health promotion, and health referrals (24%); to ensure the health and safety of the employee, coworkers, and clients (12%); and to decrease potential liabilities under workers' compensation (12%).

This demonstrated the lack of definition for pre screening in the past and the affect of

ABOUT THE AUTHOR AND SECTION EDITOR

Dr. Scott, lscott191@cogeco.ca, is a disability management consultant throughout North America and based in Waterdown, Ontario, Canada.

Dr. Wachs is Professor, East Tennessee State University, Johnson City, Tennessee.

the Americans with Disabilities Act (ADA) on employment related screening. Early employment related screening programs also lacked measurable indices of success. The collection of pre employment or pre placement health histories changed with the introduction of ADA legislation.

Traditional physical examinations are no longer useful for several reasons. First, they are now illegal prior to a conditional job offer. Second, the traditional physical examination, which was developed as a symptom checklist primarily to determine presence or absence of disease, was often performed by an examiner unfamiliar with job requirements. Non-specific restrictions that were part of the examination report also are illegal; restrictions must now be specific involving a direct threat to the individual's health and safety or interfering with the function of the job (Pruitt, 1995).

The ADA of 1990 is very specific. Disability related inquiries and medical screens of employees must be "job related and consistent with business necessity" (ADA, 1990). Given the evolution from health history collection to the current, job appropriate, validated post offer screens, it is important to review current literature on the topic and ensure post offer screens are established to meet the appropriate rigor of legislative requirements.

LITERATURE REVIEW

Since the 1970s, occupational health literature has included articles related to the effectiveness of pre employment, pre placement and post offer screening in controlling the incidence of injuries and their resultant costs. In addition, authors have also encouraged the use of protocols and objective testing reflective of the physical demands of the job. The rationale for the use of post offer screening has not always been clearly articulated, but the purpose is to determine if the applicant has the physical capabilities to perform the essential functions of the job. The goal is to prevent needless injury and associated costs.

Effectiveness of Post Offer Screening

Selectively employing workers who meet objective job standards results in reduced incidence and severity of work related musculoskeletal illnesses and injuries (Chaffin, 1978). This study clearly indicated back injuries are more severe and return to work is delayed when the physical requirements of the job are more demanding than the workers' abilities. The researchers predicted "as job strength requirements approaches or exceeds the demonstrated isometric strengths of workers on the job, the mean incidence and severity rates increase on a ratio of about 3:1" (Chaffin, 1978).

The effectiveness of ensuring employees have the physical capacity to perform the job has been examined from a number of different angles. Although much of the work is theoretical in nature the objectives are clear. According to Hogan (1991): the employee must be physically capable of performing the work. Although accidents can result in injuries even to the most able of employees, frequently injuries occur because the employee is simply unable to perform the work. Therefore, one of the best ways to reduce costs due to injuries is to select individuals who are physically qualified to perform the work.

The overall objective of post offer screening is to protect the worker from needless harm and the employer from needless costs associated with that harm. Although not many studies exist on the topic, one back strain study indicated "the severity of back sprains or strains, related medical costs, and lost workdays were significantly lower with the use of pre work functional screens on all new employees hired into physically laborious jobs" (Nassau, 1999).

Protocols and Objective Testing

To design an effective post offer screening program, the employee's capabilities must be matched to the essential job requirements. When establishing the protocol for

objective testing, it is advisable to document the process through policies and procedures. Policies and procedures can be established to reflect the specific requirements, the methods of determining the requirements, and the testing parameters. Fleishman (1979) encouraged the use of fair screening procedures. In addition, to ensure fairness in job selection, it is necessary to use proper job analysis techniques to determine the demands of the job and the relevant worker abilities. "There is no such thing as general physical proficiency," according to Fleishman (1979). Actual performance criteria are developed based on scientific research and repeated testing.

The business case for the implementation of post offer screens is compelling. The key is to ensure post offer screening is appropriate to the workplace and conducted within the confines of the law.

DESCRIPTION OF POST OFFER SCREENING

Post offer screening is a valid and reliable tool for identifying applicants' physical capabilities. The physical capabilities of the applicant are then compared to the essential physical demands of the job. The outcome of post offer screening is to determine if there is a match between the individual's functional capabilities and the physical requirements of the job. Legally, these tests must be applied consistently to all applicants and applicants must be offered the job, prior to testing, on the condition that they meet the physical requirements of the job (ADA, 1990). A comprehensive post offer screen includes the following components:

- Accurate physical demands analysis (PDA).
- Clear acceptable criteria.
- Physical screen.
- Standardized objective test.
- Occupational and job specific test.

Accurate Physical Demands Analysis

A physical demands analysis involves examining a particular job and breaking it down into individual tasks. A thorough PDA should include as much detail as possible. Occupational health professionals should evaluate weights, forces, frequency, and duration of all tasks performed. It is also important to include information about the environment and organizational and cognitive demands of the job. This information enables the professional to understand all aspects of the job and to see how the various components interact. The PDA is the foundation of an accurate post offer screening program as it is used to match the applicant's abilities to a specific set of job demands (see Table 1).

Table 1 Sample Physical Demands Analysis
<u>Essential Function 2:</u> Oversees or packs boxes with product according to specifications. Performs quality assurance (QA) on product and codes.
<u>Function Description:</u> Places assembled box into position for loading bags into boxes, oversees or manually places product into boxes. Performs QA on product to

make certain codes and product quality are good.

Required Physical Demands	Description
Standing	Required to perform the duties of this essential function.
Lifting Between Knee and Shoulder Level	Required to place product in boxes for packing of products. Weights will generally be between less than 1 lb. to 3 to 5 lbs. maximum.
Handling	Required in all aspects of this essential function.
Grip Strength	Grip strength of 2 to 3 lbs.
Neutral Grip	Required and may be performed in a flat palm position with the two hands pressing inward against the centre of the mass.
Fingering	Required to obtain and affix labels onto the box.
Pinch Strength	Required to pick up the product.
Tip Pinch	May be required to remove adhesive from the back of a label.
Reaching Knee to Shoulder	Required to perform the duties associated with this essential function.
Correctible Vision	Required to perform the duties of this essential function.

When designing the policies and procedures to go with the post offer screen, a clear description of the important components of the PDA is essential. It is also important to have a specified update time included in the policy. A good rule of thumb is to conduct updates at the annual review or whenever the job changes.

Clear Acceptable Criteria

When performing post offer screening, it is important to ensure the employer and the testing facility are clear about the testing parameters. All potential employees must be screened, all applicants must be informed of the testing procedures, and job placement is conditional on meeting the physical requirements of the job. The testing facility must have a clear outline of the minimally acceptable criteria related to the essential physical demands of the job. This ensures all candidates are measured against the same standardized criteria. For example, if the criterion is to lift 10 lbs. from the floor, it is important to measure the capability to perform this lift based on the requirement. "Where cut off scores are used, they should normally be set so as to be reasonable and consistent with normal expectations of acceptable proficiency," according to Biddle (1999). This component of the planning requires some thoughtful analysis because it must withstand the rigor of discussion and challenge if a candidate is found unable to perform the work. The value of policies and procedures for the post offer program cannot be understated. Policies and procedures should specify the components of the program, including goals, objectives, and process to ensure consistency and succession.

Physical Screen

Health professionals perform musculoskeletal examinations, including a subjective examination related to the individual's health and health history. They may ask questions about the level and frequency of exercise and the present and past employment injury history. Vital signs should also be monitored to make certain the testing is not contraindicated. If testing is contraindicated, candidates should be sent to their primary provider for clearance prior to testing. An example may be an individual with excessively high blood pressure. Without physician clearance, it would be unsafe to perform the test because of the health contraindications.

The objective evaluation includes spinal and extremity range of motion, strength testing, and neurological examination of the upper and lower extremity reflexes, sensation, and coordination. Specific tests to rule out the most common injuries seen in the prospective job are also included. Combining subjective and objective information allows the health professional performing the assessment to consult with the evaluator performing the functional testing to reach a reliable conclusion related to the appropriateness of the applicant continuing with the remainder of the post offer screening.

Standardized Objective Test

Computerized objective tools, such as the Hanoun Evaluation and Rehabilitation System (Hanoun Medical Inc., Greenwood Village, CO), are available to assist evaluators with functional testing. Prospective employees complete a series of objective computerized tests reflective of the demands of the job, creating an accurate measure of current capabilities. "Functional testing can demonstrate an individual's level of safe physical performance and better direct the potential employee to a task for which he or she is suited," according to Randolph (2000).

Using a computerized tool has several advantages over testing an individual's function manually. First, the computerized tool automatically collects objective data, thereby removing any evaluator variance, and allows the evaluator to observe the actions and body mechanics of the prospective employee. Second, a large normative database allows the evaluator to compare the applicant's results to industrial norms. Therefore, the applicant is classified not only in terms of strength level, but also with respect to the specific physical demands of the job. Third, a standardized objective test is a reliable tool that has credibility in a court challenge (Dakos, 2001).

The objective test should be established based on the demands of the job with the key question focusing on the physical attributes needed to perform the target jobs (Hoffman, 1999). The standardized test for a specific worksite can be established as a template with an objective testing clinic.

Occupational and Job Specific Test

Occupational testing measures functional parameters such as

- Carrying.
- Lifting.
- Reaching.
- Walking.
- Sitting.
- Standing.
- Bending.
- Twisting.
- Kneeling.
- Crouching.
- Climbing.
- Other activities integral to the applicant's work related activities.

It is important to measure all tasks that are essential job demands. These functions are tested in accordance with standardized protocols and, when appropriate, are cross checked with the standardized testing. It is important to perform occupational testing or computerized objective testing in a controlled setting. It is also necessary to take the testing one step further and attempt to replicate specific job demands. For example, when testing for lifting capacity, if the worker must lift in confined spaces or walk around with the object, it is important to test for these job specific demands. Simulating these components provides the evaluator with insight into how the applicant would perform these tasks on the job site.

According to Randolph (2000):

Functional capacity evaluation now stands in some jurisdiction as a mainstay of safe job placement and risk diminution by providing objective data pertaining to an individual's ability to safely perform job tasks.

For example, this could be implemented using a mock assembly line with an actual product available during the post offer screen.

EVALUATION

After a candidate has completed the post offer screen, the determination of pass or fail is made. The organization needs to have specific policies and procedures concerning the next steps. If candidates fail, they may be capable of other jobs within the organization and should be given the opportunity to perform a post offer screen for those positions when they become available. Post offer screening is to ensure the candidate has the physical capabilities to perform the job they have applied for, not to exclude individuals from employment.

CASE STUDY

A study was undertaken at a large, multinational, industrial employer to determine if post offer screening reduced the number of injuries and the resulting costs post hire. The data for the study were gathered throughout the hiring process and tracked for 4 years. The objective of the study was to determine whether or not the implementation of post offer screens would be a cost effective initiative to implement company wide, and to determine whether post offer screening could reduce the number of injuries and resultant suffering. The study used the process outlined in this article.

A group of 220 new hires participated in the study, 110 participated in post offer screening and 110 did not. No other differences were found in the hiring practices or the post hire work to be performed. The group of employees (n = 110) who had been screened post offer were compared to a group of employees (n = 110) who had not been screened, then tracked for post hire injuries and the resultant costs. Age, gender, ethnicity, and pre hire disability status were also tracked and, using chi square analysis, no differences were found between the two groups on these variables of interest ($p < .05$).

Of the screened group, 92 (83%) passed the post offer screen and 18 (16%) did not. Only those passing the screen were placed in the jobs offered. Individuals who did not meet the physical requirements of the job could retest for alternate jobs and potentially become employed in a position consistent with their functional capabilities. The control group was not screened, so all the employees were placed into the jobs that had been offered.

Table 2
Injuries and Costs in Group 1 and Group 2*

	<i>Injured Employees</i>	<i>Non-Injured Employees</i>	<i>Injury Costs</i>
Group 1 (Screened)	1	91	\$6,500
Group 2 (Not Screened)	23	87	\$2,073,000

**Group 1:n=110-18 employees who did not pass the screen. Group 2: n=110*

A substantial difference was found between the groups in relation to the number of injuries sustained and the resulting post hire costs (see Table 2). The group that had post offer screens and, therefore, were known to have the physical capabilities to perform the jobs had only a 1% injury rate during the 4 years. The group that did not have post offer screens experienced a 23% injury rate during the 4 years—a substantial difference in injury rates between the two groups. Additionally, the cost of injuries for the screened group was substantially less than those in the nonscreened group. In this case, post offer screening clearly positively impacted the number of occupational injuries and their resultant costs.

The findings of this case study are important to employers, employees, and occupational health professionals alike. First, the findings support the development of post offer screening programs in industries with significant injury occurrence. Second, employers and employees have a vested interest in preventing occupational injuries and resulting disability. Third, matching employees to jobs for which they are suited is a primary function of occupational health professionals, demonstrating their worth to employers. Fourth, employers can save substantial amounts of money in both direct and indirect costs by screening employees post offer and matching employees to work tasks they have the capability to perform. Finally, post offer screening may result in job modification to physically challenging jobs to increase the pool of matched candidates.

SUMMARY

A well designed post offer screening program including PDA, clear acceptable criteria, physical screening, standardized objective tests, and occupational and job specific tests can substantially decrease the number of injuries and resulting costs. The results of a study suggest post offer screening makes a difference on post hire injury and resulting costs. These findings are consistent with the literature reviewed. Occupational health professionals are key to the development, implementation, and evaluation of such a program and can directly affect the company's bottom line when employees are accurately matched to their job requirements.

IN SUMMARY

Post Offer Screening

Scott, L.R.

AAOHN Journal 2002, 50(12), 559-563.

- 1** Post offer screenings can be an effective method of containing workers' compensation costs.
- 2** Ensuring a prospective employee has the physical capabilities to perform the essential duties of a job can prevent needless

human and financial costs.

- 3 Post offer screens must be designed with five key considerations: accurate physical demands analysis, clear acceptable criteria, physical screen, standardized objective testing, and occupational and job specific testing.

REFERENCES

- Americans with Disabilities Act. (1990). *Employees under the American with Disabilities Act (ADA)*. Retrieved October 23, 2002, from <http://www.eeoc.gov/docs/guidance>
- Biddle, D., & Nikki, S.S. (1999). Protective service physical ability tests: Establishing pass/fail ranking, and banding procedures. *Public Personnel Management, 28*(2), 217-225.
- Chaffin, D.B., Herrin, G.D., & Keyserling, W.M. (1978). Preemployment strength testing. *Journal of Occupational Medicine, 20*(6), 403-408.
- Dakos, M., & Scott, L.R. (2001, October 10). *Post offer employment testing*. Paper presented at the Hanoun Medical Workshop. Toronto, Ontario, Canada.
- Daly-Gawenda, D., Kempinski, P.D., & Hudson, E.K. (1986). Pre-employment screening: Its use and usefulness. *AAOHN Journal, 34*(6), 269-271.
- Fleishman, E.A. (1979). Evaluating physical abilities required by jobs. *The Personnel Administrator, 24*(6), 82-91.
- Hoffman, C. (1999). Generalizing physical ability test validity: A case study. *Personnel Psychology, 52*(4), 1019-46.
- Hogan, J., & Arneson, S. (1991). Physical and psychological assessments to reduce workers' compensation claims. In J.W. Jones, B.D. Steffy, & D.W. Bray. *Applying psychology in business* (pp 787-801). Toronto: Lexington Books.
- Houghton, A.M., Edmonson-Jones, J.P., & Harris, L.A. (1989). Pre-employment screening: Use or ornament? *Journal of the Society of Occupational Medicine, 39*, 51-55.
- Nassau, D.W. (1999). The effects of prework functional screening on lowering an employer's injury rate, medical costs, and lost workdays. *Spine, 24*(3), 269-274
- Pruitt, R.H. (1995). Preplacement evaluation: Thriving within the ADA guidelines. *AAOHN, 43*(3), 124-130.
- Randolph, D.C. (2000). Use of functional employment testing to facilitate safe job placement. *Occupational Medicine, 15*(4), 813-821.
- Watson Wyatt Worldwide and the Washington Business Group on Health (WBGH). (2001). *Staying @ work: Improving workforce productivity through integrated disability management*. Fifth Annual Survey Report 2000/2001. Washington, DC: Watson Wyatt Worldwide.