

PT AS ERGONOMIST: A MODEL FOR 21ST CENTURY HEALTHCARE

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Current State of the PT Profession

It is no secret that being a Physical Therapist in the 21st Century is not without its difficulties. Despite good job potential for the next 10 years, a shrinking healthcare market has left us begging for Medicare dollars and physician referrals to maintain our traditional practice models and fighting for dominance in the “hands-on” healthcare marketplace. For sure, the motto; only the strong will survive is true in today’s physical therapy market place. With the HMO stranglehold on physicians, rising healthcare costs, hospital cutbacks as well as a flood of Physical Therapists, Chiropractors and Massage Therapists into the marketplace during the last 20 years (in 2008 there were 186,000 PTs employed, 50,000 Chiropractors and 122,000 Massage therapists¹), PT’s have been forced to turn their attention to other creative markets. One market segment that holds significant potential for the physical therapist lies within America’s core economy; its business and industry marketplace.

America’s workplace continues to thrive despite a dragging economy. Americans are working harder than ever before. In 2007, the International Labor Organization ranked American workers as the most productive in the world². In addition, the USA is ranked third behind Norway and the Republic of Singapore in gross domestic production. Americans dominate the world in farm

production, information technology and the internet³. We have some of the most stringent occupational health and safety laws in the world to protect our workers. The legislators and regulators have gone the extra mile over the last 2 decades to push for improved working conditions for US workers. Supported by health and safety regulations, workers' compensation labor laws, the ADA, FMLA and the push for state and federal regulations supporting workplace ergonomics, the PT is in even more demand than ever before in this segment of our economy. These regulations primarily support the prevention and management of musculoskeletal disorders, an area of expertise for a majority of physical therapists. In 2008, according to the Bureau of Labor Statistics, there were 416,620 cases involving sprains, strains and tears to individuals in the workplace. Approximately 222,290 cases involved injuries to the back⁴. Between the legislation and the prevalence of work injury, the writing is on the wall. Many PTs have identified with the opportunities available in the onsite industrial and business setting. It is through ergonomics and the management of workers' compensation claims that they are entering this segment of the marketplace and thriving.

Searching for New Horizons: The PT as Ergonomist

Let us first define ergonomics. The Board of Certification in Professional Ergonomics (BCPE) defines ergonomics as a body of knowledge about human abilities, human limitations and other human characteristics that are relevant to design⁶. Literally, it means "the laws of work" incorporating human function with the design of tools, machines, systems, tasks, jobs and environments for safe, comfortable and effective human use.

Over the last decade, ergonomics has gained significant popularity with healthcare professionals, particularly physical therapists. Ergonomics and Human Factors Engineering is projected to grow 14%-19% in the next ten years⁵. A few of these professionals began as physical therapists. According to the BCPE, there were approximately 74 Board Certified Ergonomists with either a Physical or Occupational Therapy degree in 2009. As of July, 2007, the Oxford Research Institute has certified 407 Industrial Ergonomists and/ or Human Factors Engineers, many of whom are physical therapists⁷. Needless to say, the job market is robust for entry into this field. Whether you pursue a degree in Human Factors and Ergonomics Engineering, participate in continuing education programs sponsored through leading universities and other courses, or benefit from reading the literature and gaining onsite ergonomics experience, all are essential ways to making the transition to becoming an ergonomics practitioner. The Physical Therapist has a great advantage possessing key knowledge and skills to perform ergonomic worksite analysis, provide employee training and to develop critical control measures to reduce ergonomic risk factors. All critical factors in helping employers reduce the risk of work related musculoskeletal strains and sprains.

What are your options?

Developing yourself into an ergonomics practitioner takes time and dedication beyond a one-day or one week workshop or participating in the onsite hospital ergonomics and safety team. It takes the integration of all your skills, knowledge and desire to learn about the American worker as well as business and industry over a period of years. Commitment to the practice of ergonomics and respecting the last 60 years of research that dedicated human factors and ergonomics practitioners have forged is also essential.

The last decade has recognized the pursuit of ergonomics as a career by more than just engineers and industrial psychologists and as such, a well defined pool of certifying entities has developed outside the traditional university. There are now a range of private label and board certified programs available to the physical therapist. Deciding which to pursue is a matter of a personal choice understanding the criteria that each offers. The professional boards provide a more formal organization with procedures for examining and certifying qualified practitioners of ergonomics and are supported by multiple professionals with credentials serving on a board of directors. The two national boards that exist today to certify Human Factors and Ergonomics professionals are the Board of Certification in Professional Ergonomics, BCPE (www.bcpe.org) and the Oxford Research Institute, ORI (www.oxfordresearch.org).

The BCPE is governed by an elected board of leading professionals and is managed by an Executive Administrator and a Financial/Information Systems Manager. The BCPE is endorsed by the [IEA](#), the International Ergonomics Association, as an accredited ergonomics certifying body and is a corporate member of [NOCA](#), the National Organization for Competency Assurance. The ORI has established a rigorous process for certification based upon a controlled peer review process. The Oxford Research Institute is a non profit, ergonomics Safety Corporation within the State of Maryland and is managed by a board of directors and an executive director.

In contrast are the “private label” entities. These are most often provided through a privately owned corporation, not necessarily supported by a recognized national board. In general, you pay a fee to attend the class, meet some requirements established by the company and receive a

certification as an ergonomic specialist or other designation determined by the company. There is no peer review process or exam to pass in most cases. These workshops generally are offered as a 2-5 day program. “Private label” programs include the Ergonomic Evaluation Certification Program by Roy Matheson CEES ⁸ and the Back School of Atlanta by Ron Porter, PT, CEAS ⁹. In some cases, the PT must submit proof of completion of criteria defined by the course in order to obtain the certification. As a result, the standard of knowledge, experience and skill obtained through these avenues has significant variance. Those who choose to pursue board certification will likely possess substantially more knowledge, skill and experience above that of the private label certificate and earn the title PT/Ergonomist.

All of these are different than the typical one or two day ergonomics seminars of course, where you receive the certificate of participation or completion. These have limited impact in truly becoming a certified ergonomist. At best, these can offer you the confidence to call yourself an “ergonomics specialist” with a little time and experience put in to work with what you learned.

The table below identifies the “private label” and board certified ergonomics programs available in today’s marketplace and the certification provided by each group. The table does not include human factors certifications or human factors and engineering degree programs available through universities and colleges. Those listed below typically require a passing grade on a proctored exam and/or submission of work and letters of recommendation from qualified ergonomists to support your application.

NAME	Type	ADDRESS	PHONE	CERTIFICATION/YEARS F/T EXPERIENCE
Board of Certification in Professional Ergonomics	National Board Certification	P.O. Box 2811 Bellingham, WA 98227-2811	Phone: (360) 671-7601 Fax: (360) 671-7681 http://www.bcpe.org	CPE - Certified Professional Ergonomist/ 3 yrs AEP –Associate Ergonomics Professional/ 3 yrs CEA – Certified Ergonomics Associate/ 2 yrs
Oxford Research Institute (ORI) Attn: William Banks	National Board Certification	10153 Vantage Point Ct. New Market, MD 21774	Phone: (301) 865-4506 Fax: (301)524-3895 http://www.oxfordresearch.org	CIE - Certified Industrial Ergonomist/ 4-6 yrs CAE – Certified Associate Ergonomist/ not specified
Ergonomic Evaluation Certification Program Roy Matheson and Associates	Private Label Certification	P.O. Box 492 Keene, N.H. 03431-0492	Phone: (800) 443-7690 Fax: (603) 358-0116 www.roymatheson.com	CEES -Certified Ergonomic Evaluation Specialist / not specified
Back School of Atlanta Ron Porter PT, Director	Private Label Certification	1962 Northside Dr., Atlanta, GA 30318	Phone: (800) 783-7536 Phone: (404) 355-7756 Fax: 404-355-3907 Web: www.backschoolofatlanta.com	CEAS -Certified Ergonomic Assessment Specialist; 3 levels offered/ CEUs provided.

Table I. Ergonomic Certification Options for Physical Therapists

How are you going to get the necessary qualifications?

Gaining the necessary experience to become qualified in Ergonomics is difficult. It takes substantial time and effort to not only get the onsite work experience, but to accomplish the reporting sufficient to achieve the credentials. Each entity has set a minimum level of competency beyond the typical core curriculum of the physical therapist.

When the Occupational Injury Prevention and Rehabilitation Society (OIPRS) was active; it supported the credentialing of PTs through BCPE and ORI, but did not feel their established criteria should be the only criteria necessary to become an ergonomic specialist¹⁰. OIPRS identifies a minimum level of skill and knowledge in providing MSD treatment, analysis and other ergonomic related services. In their position statement, in response to the Fed OSHA Standard, the following criteria was identified:

1. A minimum of 40 hours of continuing education specific to performing ergonomic analysis and the identification and treatment of MSDs.
2. A minimum of 40 hours of experience in the field performing ergonomic analysis and the identification and treatment of MSD.
3. Ability to implement a multi-level ergonomic and occupational health plan including, employee and management, education, ergonomic analysis and evaluation, MSD identification and management.
4. Basic knowledge of statistics and engineering as well as business processes such as production inventory, workers' compensation, and unionized work settings.
5. Knowledge of human resources policies and governmental regulations such as OSHA, EEOC and ADA.

The other certifying boards and private label entities have each established their own minimal criteria which offers significant variability. This is particularly noted with private label programs that require little to no experience provided you have the money for the course. Whereas, the BCPE and ORI require a BS degree or higher and at least three to six years experience relevant to qualify for their CPE or CIE certifications, respectively. To learn more about the required criteria, visit the websites noted in this article. Nonetheless, to move into the field, the PT is best advised to acquire the necessary skills through continuing education courses, on the job training and mentoring. Pursuing board certification at some level will demonstrate to regulators, employers, insurers, physicians and practicing ergonomists and human factors

professionals a quality level of competency to practice ergonomics that will assure the PTs place in the professional field of Ergonomics.

Establishing an Ergonomics Service Line in the Clinic:

Once you are certified and credentialed in ergonomics, perhaps one of the best ways to drum up business for your clinic is to offer an array of ergonomics services. The typical outpatient orthopedic clinic offers immediate access to the perfect client to benefit from ergonomics services, which are the injured worker and their employer. Workers' compensation patients tell the story of what is happening at the workplace, making it an excellent opportunity for the PT Ergonomist to offer their services to the employer, the insurance company and the primary treating doctor on the case. An opportunity to go onsite to reveal to all parties involved how the injury can be prevented from happening again and how to manage the current injury most effectively is priceless and the PT Ergonomist is in the position to do that. Here is a list of a few typical services that one could offer:

- Ergonomic Worksite Analysis for injury prevention, management and disability management
- Onsite office ergonomic chair assessments and fittings
- Alternative ergonomic keyboard and mouse trials with instructions on proper mechanics
- Ergonomics training for office or industrial employees
- Body mechanics and posture awareness

What to charge:

It is important to charge an appropriate rate that is based on your experience as an ergonomics consultant and what the market will bear based on your community economics. If you have no experience, begin with providing some complimentary in-services for your local chamber of commerce to gain interest. Do a few walk-about of local businesses and discuss with the HR Manager, Safety or Risk Manager the issues they have with work injuries. As you go along, discuss what you observe as potential ergonomic risk factors, etc. Provide value along the way. Keep in mind that you will likely need to charge less in a small town than the big city. In general consulting service fees range from \$100-\$150/hour and increase with experience. If you are providing ergonomic analysis as part of a workers' comp injury case, be sure to get your services authorized in advanced and discuss the payment process up front with the adjuster. The employer benefits from this service as part of the medical management of the claim without having to put their own dollars out and that is very favorable for the PT Ergonomist and future business. The employer receives significant benefits from the ergonomic analysis that not only impacts the injured worker, but other workers performing the same job.

Track your success:

As you gain experience over time, track your successes with your clients. Be objective and provide evidence based reporting to your clients to support your recommendations. Provide practical and valuable solutions that are easy to understand and implement in a written report. Most importantly, follow up to determine your results were effective and helpful for all parties involved. This will help to propagate your ergonomics business.

PT as Ergonomist:

Choosing to pursue ergonomics as an adjunct to your current PT practice or making the transition entirely to PT/Ergonomist or specialist will afford significant opportunity for the PT in the 21st century. Becoming a PT/Ergonomic Specialist is more than just being able to perform an office ergonomic analysis or return an injured worker back to work with the installation of a keyboard tray. It takes dedication to learning how to integrate the theory and practice of ergonomics into who we are as a profession and validating our work in the field to those who have gone before us.

In this marketplace, there are currently no capitations, no CPT or RVS codes. A dollar billed is a dollar received. There are no HMO rules restricting the delivery of the service, only the desire of the employer and insurer to do the right thing for the (injured) worker and to preserve safety in the workplace. Here, the PT Ergonomist can make substantial and significant impact no longer patient-by-patient but by impacting an entire workforce over time with ergonomics skills and savvy as well as our traditional methods of care, forever changing the way healthcare is delivered in this century.

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