POSTURAL RESTORATION TRAINED™ (PRT)

Application Deadline – October 15, 2023 (for testing in January 2024)
March 15, 2024 (for testing in Summer 2024)

The Postural Restoration Institute® (PRI) has implemented a credentialing process for Athletic Trainers (ATs), Athletic Therapists, Strength and Conditioning Coaches, Certified Special Population Specialists, and Exercise Physiologists. Postural Restoration Trained™ (PRT) recognizes expertise in a specialized area of physical medicine. PRT is offered to those who have completed all required courses and demonstrated an advanced knowledge and application of Postural Restoration Institute® concepts. PRT is an educational process that credits the applicant for their PRI knowledge and their ability to apply this knowledge, where and when appropriate, in a professional manner. PRI strongly recommends experience and implementation of Postural Restoration® concepts for at least two years before applying for PRT.

Inclusion of other fitness and healthcare professionals for PRI credentialing program eligibility will be continually and comprehensively reviewed by PRI for potential policy revision in the future.

PRT Eligibility

- You are eligible to apply if you are an Athletic Trainer with current certification by the Board of Certification (BOC). Verification of current certification status is needed (electronic or written). For more information about certification through the BOC, click here or copy this link into your internet browser, http://www.bocatc.org/index.php?option=com_content&view=article&id=37&Itemid=39.
  OR
- You are eligible to apply if you are an Athletic Therapist with current certification by the Canadian Athletic Therapists Association (CATA). Verification of certification status is needed (electronic or written). For more information about certification through the CATA, click here.
  OR
- You are eligible to apply if you have earned the CSCS credential through the National Strength & Conditioning Association (NSCA). Verification of current credential status is needed (electronic or written). For more information about the CSCS credential, click here or copy this link into your internet browser, http://www.nsca-cc.org/cscs/about.html.
  OR
- You are eligible to apply if you have earned the SCCC Certification through the Collegiate Strength & Conditioning Coaches Association (CSCCa). Verification of current certification status is needed.
  OR
- You are eligible to apply if you have earned the Certified Exercise Physiologist through the American College of Sports Medicine (ACSM). Verification of current certification status is needed.
  OR
- You are eligible to apply if you have earned the Certified Special Population Specialist (CSPS) credential through the National Strength & Conditioning Association (NSCA), and you have completed a Bachelor's degree or higher degree. Verification of current credential status is needed (electronic or written), as well as verification of completed Bachelor's degree or higher degree. For more information about the CSPS credential, click here.
  OR
- You are eligible to apply if you have earned the Registered Kinesiologist through the College of Kinesiologists of Ontario (COKO). Verification of current certification status is needed.

PRT Course Requirements

The following course attendance criteria are required for eligibility to apply for PRT:

- Completion of *Myokinematic Restoration*
- Completion of *Postural Respiration*
- Completion of *Pelvis Restoration*
- Completion of *Impingement & Instability*

Note: Courses must be sponsored by the Postural Restoration Institute® (PRI) and therefore presented by PRI Faculty using PRI materials. Courses must be completed in entirety, 15 contact hours each. Home study or live stream courses are acceptable.

Reasons for Establishing the PRT Credential

- Establish and maintain continuity between sites implementing Postural Restoration Institute® concepts and techniques.
- Recognize individuals with PRI interest, specialization and expertise.
- Protect the use and application of PRI science, reasoning, processes, techniques, and materials.
- Provide avenues for professional development, collaboration between multidisciplinary specialists with PRI interests, and enhancement of scientific approaches using PRI concepts.
- Allow educational institutions, students, and researchers access to PRI specialists.

PRT Applications and Testing

PRT testing takes place annually each January, and in addition a summer testing date will be offered every 3 years. The next summer testing date will be in 2024. PRT applications for the annual January testing date, are due on or before October 15th of each year. PRT applications for summer testing are due on or before March 15, 2024. We are unable to accept late applications. There is no fee to apply. In order for PRI to set a high standard for the credentialing process, applicants are asked to provide a number of objective resources illustrating integration of Postural Restoration Institute® concepts and techniques. In addition, PRI requires that the information supplied with your application be current and accurate.

Applications are accepted throughout the year, and applicants will receive their feedback from the application review committee along with recommendations for PRT testing readiness within two months. If you choose to apply and do not complete credentialing the same year, PRI will retain your application for review the following year. Please contact us to re-submit your application.

For those submitting applications for the October 15, 2023 deadline, PRT testing will take place on January 7-8, 2024.

PRT Fees and Benefits

A one-time credentialing fee of $2000 will be due prior to the testing process. This is the only monetary requirement and renewal is not required. This fee directly offsets costs associated with testing, assessing competency and completing training. The fee will also assist us in developing the process, advancing individual knowledge of Postural Restoration Institute® concepts and in growing a network of

professional support. Individuals who earn the PRT credential will receive Postural Restoration Institute® course updates quarterly, ongoing clinical discussion and dialogue, discounted tuition *(50% off the regular tuition rate for Myokinematic Restoration, Postural Respiration, Pelvis Restoration, Impingement & Instability, Cervical Revolution and Advanced Integration)*, advertising and promotional opportunities, and other benefits to be determined by the Postural Restoration Institute®.

While we encourage and anticipate a high level of involvement from those who earn the PRT credentials, status will not be affected by future Postural Restoration Institute® support and involvement. In good faith we ask that you keep abreast of all Postural Restoration Institute® activity and development by taking advantage of the tuition discount offered. To be included on the PRI Find a Provider Map of the website, a credentialed professional must be practicing and have taken at least one PRI courses within the past 5 years. If other requirements are deemed appropriate in the future they will be determined with the involvement and support of the Postural Restoration Institute® Board of Directors, faculty and credentialed providers. Ron Hruska is very excited to work with all PRT applicants through the testing process as well as continued collaboration thereafter. This credentialing process allows PRI to continue to develop a close and integrated network for future Postural Restoration Institute® leaders.

Again, we truly appreciate your interest and look forward to reviewing your application. Please let me know if you have any questions or if I can assist you in any way.

Jennifer Platt, Director of Education and Credentialing
platt.jennifer@posturalrestoration.com

PRT Application Checklist – *TWO COPIES* *of the following must be received by October 15th for consideration for testing in January, or March 15th for consideration for testing in Summer 2024. Please include this checklist with your application.*

- ☐ Demographics (page 5)
- ☐ Course Attendance List (page 6)
- ☐ Verification of Current ATC, AT(C), CSCS, SCCC, CSPS*, or Certified Exercise Physiologist credentialing status.
  (*If CSPS credential is held, verification of Bachelor's degree or higher degree must also be submitted.)
- ☐ Clinical / Academic Evidence (see instructions on page 6)
- ☐ Three Favorite PRI Non-Manual Techniques and Why (see instructions on page 6)
  – ***Please include a photocopy of each Non-Manual Technique selected.***
- ☐ Critical Research Review – Two articles supportive or related to PRI concepts and your interpretation of each article. (see instructions on page 7). **Be sure to include the full-text copy of each article.**
- ☐ Ideas for Future Research (see instructions on page 7)
- ☐ PRI Advocacy Questions (see instructions on page 7)
- ☐ **Two Copies of all of the above must be submitted.**

Postural Restoration Trained™ (PRT) Application:

Please submit 2 copies of your application (double sided), including full text articles. Do not include your application in a binder or folder.

PART ONE (Demographics)

Today's Date _____

Name _____

Professional Title/Credentials _____

Employer / Company _____

Work Address _____

Work Phone and Fax _____

Website _____

Home Address _____

Home Phone _____

Email _____

Education Background _____

_____

_____

_____

Present Employment Responsibilities _____

_____

_____

Credentialing testing date for which you are applying (Circle One)

January 2024 Summer 2024

PART TWO (PRI Experience)

Course Attendance

- Please list PRI course attendance. Course requirements: *Myokinematic Restoration*, *Postural Respiration, Pelvis Restoration* and *Impingement & Instability*. Be sure to list other PRI courses attended in addition to those required.

Course Title	**Date**	**Location**	**Speaker**
_____			
_____			
_____			
_____			
_____			
_____			

Clinical / Academic Experience

- Please attach **thorough evidence** of how you are able to incorporate Postural Restoration Institute® principles and techniques in your setting. What specific PRI concepts are you able to incorporate and how? Consider including case studies, photos of athletes or clients successfully performing techniques, and training programs you have designed for your clients. Discuss your Postural Restoration® assessment and rationale for manual and/or non-manual technique implemented with athletes or clients. Be sure to submit an adequate amount of evidence of how you are incorporating PRI principles into your practice. Attachments should demonstrate correct use of PRI terminology and techniques from *Myokinematic Restoration, Postural Respiration, Pelvis Restoration* and *Impingement and Instability* courses.

  In addition, evidence can be provided in the form of research or case studies authored or co-authored, in-service materials presented to staff or colleagues (include handouts, slides or outline), and other education materials you have developed based on PRI concepts.

  We encourage applicants to submit multiple forms of evidence.

- Please list your three favorite PRI non-manual techniques and explain why. Please use the full PRI title and include a copy each non-manual technique with the application. **Each non-manual technique discussion should be at least one page in length.**

  (Be sure to answer the following when answering: What is the purpose of the technique? In your experience, what is the likely outcome of the technique? What techniques would you use

before, after or even in the same program in conjunction with the technique? What cues do you find helpful when instructing your patient? What patient diagnoses or objective test outcomes indicate that this technique is appropriate?) ***See example on page 8.***

PART THREE (Critical Research Review)

- Please attach two articles supportive or related to PRI concepts and your interpretation of each article. The brief discussion (1-2 pages) should fully demonstrate your ability to integrate PRI concepts with current concepts in literature. We encourage you to use articles that are not written by PRI credentialed professionals or faculty, but rather articles that are from journals that supports the concepts of Postural Restoration®. ***See example on page 10.***

  Suggested journals:
  Strength & Conditioning Journal
  Journal of Strength & Conditioning Research
  NSCA's Performance Training Journal
  Journal of Athletic Training
  British Journal of Sports Medicine
  Journal of Applied Physiology
  American Journal of Respiratory Critical Care Medicine
  Journal of Applied Biomechanics
  Journal of Bodywork and Movement Therapies
  Journal of Orthopaedic and Sports Physical Therapy
  Journal of Neurobiology
  Journal of Neurophysiology
  Spine
  Journal of Vestibular Research
  Journal of the American Podiatric Medical Association
  Thorax – An International Journal of Respiratory Medicine
  International Journal of Osteopathic Medicine

- Please list two ideas or suggestions for future clinical research or case studies based upon your review of current related research. This information assists with the future publication of PRI research and case studies.

PART FOUR: (PRI Advocacy)
Please answer the following questions:

- Explain your current professional situation. In what capacity are you utilizing or integrating PRI concepts and techniques? Are you involved in academia? If so, in what capacity? How are you able to integrate PRI concepts in the classroom?

- How have you promoted or recognized the Postural Restoration Institute®? Please provide evidence of this recognition or support. For example: Have you presented or coordinated in-services related to Postural Restoration Institute concepts or techniques? How do you plan to further promote the Postural Restoration Institute and be a catalyst in the future growth of the PRI approach? Do you have blog stories you have written related to PRI to include?

Exercise #2

R) Sidelying Hemi 90-90 with R) Glute Max and L) FA IR

This non-manual technique is another one of my favorites because it utilizes a position that is very effective in training true frontal plane control of the pelvis especially on the left. Establishing frontal plane control below the base of the sacrum is crucial to maintaining balanced reciprocal and alternating activity. Knowing this, the power of this exercise becomes apparent due to the fact that it targets the L) iliacus/gluteus medius, L) IC adductor and R) gluteus maximus which are all major players in the body's ability to acquire L) frontal plane access. This exercise aims to facilitate the L) iliacus (posterior inlet) via activation of the anterior fibers of the L) gluteus medius in conjunction with the L) hamstrings and L) IC adductor to establish L) inlet adduction and outlet abduction. In addition, the inclusion of the concomitant facilitation of the rotational fibers of the gluteus maximus (posterior outlet) on the right adds a powerful external AF/FA external rotator that promotes R) inlet abduction and outlet adduction. With the L) femur in-line with the trunk for enhanced frontal plane capability, the L) gluteus medius activation (FA IR movement) along with IC adductor (FA ADD/IR movement) and hamstrings (FA EXT/IR movement) positions the L) pelvis in IP IR/IS ER (EXT/ADD/ER) while the R) gluteus maximus activation (FA ER movement) contributes to R) pelvis IP ER/IS IR (FL/ADD/ER) positioning. This positioning and facilitation inhibits the L) anterior inlet, L) posterior outlet, R) posterior inlet and L) anterior outlet while facilitating the L) posterior inlet, L) anterior outlet, R) anterior inlet and R) posterior outlet. In other words, the facilitation of the L) iliacus via gluteus medius in addition to L) IC adductor and L) hamstrings simultaneously with the R) gluteus maximus trains L) leg stance phase and R) leg swing musculature which ultimately opposes the L) AIC pattern. In my experience, this technique can be used quite effectively for any of the following reasons: 1) pelvis repositioning; 2) enhancing an athlete's ability to solidify a 2/5 R) HALT score by finding/feeling/strengthening the L) gluteus medius; 3) reinforcing AF/FA stability in the presence of a pathologically lax iliofemoral ligament. From a PRI objective testing

perspective, I would likely employ this technique if a L) AIC athlete (negative right ADT, positive left ADT) needed more frontal plane focus to solidify repositioning after more basic repositioning exercises (i.e. 90-90 Supported Hip Lift w/ Hemibridge, R) Sidelying Respiratory Left Adductor Pullback, etc) failed. I would also choose this exercise to again focus on increasing L) frontal plane inlet/outlet control as part of a L) AIC pelvic floor program for an athlete who is repositioned yet with (+) L) PADT remaining. Furthermore, I believe this exercise would be appropriate for an athlete presenting with (+) L) ADT and (-) L) EDT which would indicate anterior hip capsule pathological laxity and need for capsuloligamentous muscle reinforcement. When instructing an athlete on this technique, I would first make sure that he is able to achieve proper L) FA extension while maintaining appropriate L) inlet extension and inhibition of the lumbar erector spinae musculature. I would also select the most appropriate sized towel roll for the L) knee that would allow the athlete to adduct the thigh without sending the L) inlet into abduction. With the set-up in place, I would first cue the athlete to maintain a rounded back and pelvis while lining up his L) thigh with his trunk and bending his L) knee. I would encourage him to feel activity in his L) hamstring. Next, while maintaining the previous position, I would ask him to gently press his L) inside knee down into the towel and rotate his L) ankle toward the ceiling. I would encourage him to now feel the muscles of his L) inner thigh and L) outer hip working in addition to the L) hamstring. Finally, I would ask the athlete to gently press his R) knee down into the towel and feel the muscles on his R) outer hip working. While maintaining all previous steps, I would remind the athlete to maintain proper breathing sequence with an emphasis on full exhalation, pausing for 4-5 seconds at the end of exhalation and feeling expansion of his L) lower thorax as he inhales through his nose. If at any point the athlete has difficulty performing the exercise after adequate coaching, I would likely regress to R) Sidelying Supported Hemi 90-90 with L) FA IR to add sensation of support for R) and L) feet utilizing the wall and removing the activation phase of the R) glute max. I could also further regress to R) Sidelying Supported L) Glute Med which would reduced the pelvis differentiation component of the exercise and make it easier for the athlete to maintain L) posterior pelvic tilt and anterior inlet inhibition when feeling for L) gluteus medius activation. Examples of exercises that I would use in the same program with the R) Sidelying Hemi 90-90 with R) Glute Max and L) FA IR might be the All-Four Right Arm Reach or Standing Wall Supported Reach with L) AF IR to emphasize L) IO/TA facilitation for inlet extension and posterior mediastinum expansion while activating the L) iliacus/gluteus medius. I may also use the Standing Posterior Capsule Stretch which will help inhibit the L) posterior capsule/outlet and allow enhanced capability to achieve L) outlet FL/ABD/ER (inlet EXT/ADD/IR) and FA IR. The ability to adequately achieve this position would allow the L) iliacus/gluteus medius proper leverage to activate. Furthermore, I may also use L) Sidelying Supported R) Glute Max with R) Hip Extension and R) FA ER to focus more on R) gluteus maximus activation for improved R) outlet abduction in an alternating R) and L) pelvis position. To the progress the challenge of the R) Sidelying Hemi 90-90 with R) Glute Max and L) FA IR exercise, I could ask the athlete to straighten the left knee which would activate the L) quad, requiring increased pelvic control and closely mimicking L) stance. I could also ask the athlete to reach with his L) hand toward his feet to recruit more L) IO/TA or ask him to perform the R) Sidelying R) Apical Expansion with L) AF IR exercise which would better integrate thorax activity.

J Shoulder Elbow Surg. 2015 Jun;24(6):955-64. doi: 10.1016/j.jse.2014.10.010. Epub 2015 Jan 1.

The effect of trunk rotation during shoulder exercises on the activity of the scapular muscle and scapular kinematics.

Yamauchi T[1], Hasegawa S[2], Matsumura A[3], Nakamura M[4], Ibuki S[2], Ichihashi N[2].

This research study aimed to determine the potential impact of incorporating ipsilateral trunk rotation on scapular muscle activation and positioning during 6 commonly used shoulder exercises. Thirteen right-handed males (average age 21 ½ years) with no previous shoulder history participated in the study. All participants were required to use their "dominant" shoulder while performing 5 reps each of 3 different standing and 3 different prone exercises both with and without simultaneous maximal trunk rotation to the right. The standing series involved scaption, external rotation with arm at side and external rotation with 90° HG abduction. The prone series involved scapular retraction at 45° HG abduction, 90° HG abduction and 145° HG abduction. Electromyography was used to acquire raw data for muscle activation of the right upper trapezius (UT), right middle trapezius (MT), right lower trapezius (LT) and right serratus anterior (SA). The percentage of maximum voluntary contraction for each muscle was calculated from the raw data. Electromagnetic motion capture was used to measure 3 different scapular positions (external rotation, upward rotation and posterior tilt) and humeral angle (external rotation). In addition, the ratios of the relative activity of the upper trapezius compared to the middle trapezius (UT/MT), lower trapezius (UT/LT) and serratus anterior (UT/SA) respectfully were calculated from the EMG data. The results of this study showed that the 3 upright exercises performed with maximum ipsilateral hip and trunk rotation significantly increased LT muscle activity along with scapular external rotation or posterior tilt. Also, the 3 prone exercises performed with maximum ipsilateral trunk rotation decreased UT activation and the UT/LT activity ratio. Based on the results, the authors suggest that incorporating ipsilateral trunk rotation into the exercises used in this study may be more beneficial to activating the LT and reducing activity of the UT while enhancing external rotation or posterior tilt of the scapula on the thorax.

Per my interpretation, the results of this study reinforce the PRI concept that proper body position is both important and necessary to achieve the maximum facilitation of a targeted set of musculature. More specifically, right upper trunk rotation is crucial for the proper inhibition of the muscles that make up the Right Brachial Chain (RBC) (right anterior-lateral intercostals, right deltoid-pectoral muscle, right Sibson's fascia, right triangularis sterni, right sternocleidomastoid, right scaleni and right diaphragm) and facilitation of those that oppose that chain (left diaphragm, right triceps and lower trap, left triangularis sterni, right serratus anterior and left IO/TA). The authors chose to focus on analyzing the activity of three of those muscles (LT, MT and SA) that oppose the Right Brachial Chain. As an interesting side note, the authors' choice of anatomical landmarks to measure trunk rotation paralleled with PRI's teachings of the definition of "upper trunk." On each subject, electromagnetic sensors were placed on the T8 spinous process, which according to PRI perspective is a very important landmark signifying the dome of the diaphragm and the location where the maximum amount of rotation should be attained and maintained when moving throughout life. Also, with sensors placed on the sternal notch and xiphoid process, the authors also seemed to parallel PRI's perspective on the importance of the sternum as a key central structure or "septum" of the thorax.

The results of this study further reinforce the concept that the shoulder does not function in isolation. Instead, the shoulder's positioning and quality of muscle activation is heavily influenced by

the position of the osseous structures and functioning of the polyarticular muscle chains connected to it. Specific to this study, the results suggest that the shoulder is directly influenced by the position and function of the scapula on the thorax and thorax on the scapula. From a PRI perspective, the explanation behind increased LT activation and scapular ER or posterior tilt in each standing exercise and decreased UT activation along with UT/MT and UT/LT activity ratios in 2 out of the 3 prone exercises can be found through the thoracic spine rotation and rib rotation mechanics involved with the right upper trunk rotation movement. Right upper trunk rotation results from thoracic vertebrae (above T8) rotation to the right which causes the ribs on the right to externally rotate and expand as airflow is now more easily drawn into the anterior aspect of the apical chest wall on this side due to this position. This improved airflow is of course is dependent on the establishment of an adequate zone of apposition (ZOA) on the left which would position the left ribs into internal rotation and allow the left diaphragm to properly direct airflow to the right apical chest. The right rib external rotation and directionality of airflow into the anterior aspect of the right chest wall would then allow deactivation of the RBC musculature which holds the scapula in relative abduction, upward rotation, internal rotation and anterior tilt. This RBC chain inhibition would allow the MT, LT and SA mechanical leverage to fully activate as the scapula positions into relative adduction, downward rotation, external rotation and posterior tilt (aka position of stability).

Although the data from this study indicates that ipsilateral trunk rotation can improve the position and muscle activation of the scapula during specific shoulder exercises, I believe that several limitations from this study's procedure exist when viewed from a PRI lens. For one, the authors assume each participant in the study has the capability to achieve neutrality at rest as no objective testing was completed prior to data collection to confirm each participant's initial right & left scapula, thorax and pelvis position. The inability to maintain balanced left and right AIC and BC activity would restrict true uncompensated right upper trunk rotation and not allow the purest form of isolated scapular muscle EMG activity to occur. Establishing the participant inclusion criteria of system neutrality without any pathological capsular compensation may have resulted in potentially higher quality data. Another example of a study limitation involves the execution of the standing exercises performed with trunk rotation. The procedure described in the study simply stated that the "subjects were instructed to ipsilaterally and maximally rotate the trunk and hip." From this description and the pictures provided in the paper, the subjects appear to attempt to achieve right upper trunk rotation concomitantly with a lower thoracic (below T8) and lumbar spine oriented right on top of a right stance shifted pelvis position (R AF IR/L AF ER). From a PRI perspective, this position would not be ideal for measuring right scapular external rotation/posterior tilt along muscle activation of the MT, LT and SA. Ideal tri-planar leverage for thoracoscapular (TS) and scapulothoracic (ST) activity of those 3 muscles would involve left stance shifted pelvis position (L AF IR/R AF ER), spinal segments below T8 oriented left and maintenance of thoracic flexion through a secured left ZOA during full inhalation and exhalation phases of the breathing cycle all prior to the right upper trunk rotation and scapular retraction. Yet another example of a study limitation involves the execution of the prone exercises performed with trunk rotation. The authors described the procedure as instructing the subjects to "maximally rotate the trunk without moving the pelvis." Judging again by the simplistic description and the pictures provided, the participants appear to heavily extend the spine and, in doing so lose thoracic flexion and compromise the maintenance of a left ZOA while attempting to ipsilaterally rotate the upper trunk and retract the right scapula. This extended spinal position and loss of thoracic flexion minimizes the rotational capabilities of the vertebral segments; therefore, allowing reduced and compensatory upper trunk rotation and scapular retraction to occur. As a result of this compensated movement strategy, the quality of activation of the MT, LT and SA would be compromised and could potentially explain why all three prone exercises incorporating

trunk rotation failed to show any statistically significant increase in MT, LT or SA activity when compared to the exercises performed without trunk rotation.