Physical Self Regulation (PSR)

Practice steps 1-3 six times a day (12 minutes of your time)

1. **THE NEUTRAL POSTURE POSITION:**
   a. Sit straight and relaxed with knees shoulder width apart with stomach muscles relaxed.
   b. Arms should rest on thighs comfortably with hands open and fingers slightly curled.
   c. Head is straight with relaxed neck muscles. Your earlobe should line up with your shoulder.
   d. Shoulders are relaxed and evenly sloped.
   e. Teeth apart, tongue relaxed, lips & face relaxed. ← This was part of the PAT (positional awareness training) exercise you may have been given earlier.

2. **GENTLE HEAD MOVEMENT:**
   a. Close your eyes. If it feels uncomfortable or produces dizziness, leave eyes open.
   b. While practicing lips relaxed, tongue relaxed, teeth apart, exhale while slowly **flexing the head downward** (~4 seconds). Avoid any movement that causes discomfort, tightness or pain.
   c. Pause a moment in that flexed position for 2-3 seconds.
   d. Inhale with the diaphragm slowly, expanding your relaxed stomach, as you slowly **bring your head upright** to the neutral position (~4 seconds).
   e. Pause a moment, then exhale and slowly repeat flexing the head downward.
   f. Do steps a-e 6 times for ~1 minute.

Note: If coordinating head movement with breathing is too difficult, then just concentrate on gentle, symmetrical head movements. Gentle symmetrical motion helps blood flow.

3. **GENTLE ARM MOVEMENT:** (Eases back and shoulder tension)
   a. While in a neutral posture position (See step 1)
      - Raise hands up as if conducting a choir, or if this is uncomfortable
      - Raise arms slightly from rest position with hands open and fingers slightly curled
   b. **Move arms backwards and forwards**, staying in a comfortable range of motion.
   c. Repeat arm motion slowly, once every 5 seconds for 1 minute.

Note: Practicing neutral posture positions and gentle arm movements will help you to relax painful areas and to recognize inappropriate postural habits such as head tilt, arm crossing, and rounding of the shoulders.
4. **TAKE BRIEF RELAXATION BREAKS:**
   a. Let feet, legs, hands, arms, shoulders, eyelids, lips, teeth and tongue rest in relaxed positions.
   b. Start with 5 minutes at a time and gradually increase relaxation time by 1 minute each session up to 20 to 25 minutes. Take at least 2 relaxation breaks each day during your initial training.
   c. While at work or studying, every 20 minutes stare at something 20 feet away for 20 seconds.

5. **BEGIN SLEEP IN A RELAXED POSITION:**
   Lay on your back, practice slow diaphragmatic breathing while keeping lips relaxed and teeth slightly apart. Say aloud 6 times “lips relaxed, tongue relaxed, sleep relaxed”. Start off sleeping on your back. Don’t worry if you move.

6. **DIAPHRAGMATIC BREATHING:**
   a. While in a relaxed, neutral posture position, breathe slowly and regularly with your diaphragm.
   b. As you inhale oxygen, the diaphragm raises the stomach and expands your sides.
   c. As you exhale carbon dioxide, the stomach will fall as the diaphragm relaxes.
   d. Before inhaling again, try to pause comfortably for several seconds. Note: the pause is NOT holding your breath. The pause is time to be still and relax. Your breathing rate should match what you are doing physically. For most people sitting in a chair, lying on a couch, their breathing rate is in single digits.
   e. If at any point you feel lightheaded or dizzy, return to your normal breathing pattern. Slow diaphragmatic breathing should be relaxing; it may take time to develop this skill.

**Physiological Self Regulation (PSR) Info**

PSR works best when you drink adequate non-caffeinated fluids, eat a balanced diet and exercise regularly without pain. Make “diaphragmatic breathing” second nature. This may be achieved with practice. PSR may take time to reverse unhealthy, fatiguing habits. Do no activity that increases your pain.

The goal of PSR is to produce physiologic changes that reduce pain, fatigue and muscle misuse.

Does this work? Yes. PSR was studied in 2001 by Carlson & Bertrand and was found to be more effective than night guards and pain pills. This study was repeated in a similar fashion in 2012 by Michelotti.

How does it work? The arm and head movements pump away stagnant blood full of irritating muscle fatigue byproducts that produce pain. Getting yourself into optimal neutral postural positions decreases muscle workload and fatigue in the first place. Diaphragmatic breathing is to replace chest breathing which is much more fatiguing. Slower breathing avoids hyperventilation. Over-breathing is known to bring on anxiety, induce headaches, cause tingling in the face, extremities and “butterflies” in the stomach and kicks in the “fight-or-flight” part of your nervous system. Sleep is important for body repair, memory, thinking-ability and overall “well-being”. A balanced diet gives you the nutrients and water you need to be efficient.