measured by a calculated "comprehensive HP/PDP" score. Pearson's correlation coefficients were calculated for these scores, years since graduation from entry level program, and years since certification as CCS. **RESULTS.** There were 34 (63.0%) useable responses to the survey. For each of the ten items representing current clinical practice of HP/PDP by CCSs, the subjects most frequently reported practicing each of these activities semi-annually or less. Three of these items (community education on decreasing risk factors of coronary artery disease through exercise, community education on initiating an exercise program, and peer education on HP/PDP) were reported to be practiced semiannually by 30% of the respondents. 63% of the respondents reported a lack of time to be most influential to their practice of HP/PDP. **CONCLUSIONS.** CCSs are not performing HP/PDP frequently, primarily due to a lack of time. CCSs do feel that it is important for physical therapists to practice HP/PDP interventions. Based on input from respondents, a definition of HP/PDP applicable to clinical practice is proposed. **RELEVANCE.** With current and continuing reforms of health care limiting the funds and time available for episodic treatment of disease and injury, prevention should become more important than ever in maintaining the health of the general public. Generating an accurate definition of the role of physical therapy within preventive health care is important for the development of its practice.

CHEST WALL EXCURSION AND TIDAL VOLUME CHANGE DURING PASSIVE POSITIONING IN CERVICAL SPINAL CORD INJURY.

Massery MP
Dreyer HE
Bjornson AS
Cahalin LP
Boston University Medical Center/Sargent College, Boston, MA.

PURPOSE: The purpose of this study was to investigate the change in chest wall excursion (CWE) and tidal volume (TV) of two different passive body positions (PBPs).
SUBJECTS: Seven cervical spinal cord injury (CSCI) patients (6 men, 1 woman; age [mean ± SD] =33 ± 8 years; FEV_1=2.2 ± 0.6 L; FVC=2.4 ± 0.7 L; PEFR=4.7 ± 1.0 L/sec; TV=420 ± 129 ml; months post - CSCI = 27 ± 41).
METHODS: Circumferential measurements of upper-chest (UC; 3rd rib), mid-chest (MC; xiphoid process), and lower-chest (LC; midpoint between the xiphoid process and umbilicus movement was performed with a tape measure (resolution=1/16" with good interrater reliability via ICC=0.99) during TV and vital capacity (VC) breathing in two PBPs (baseline supine=BS; supine with pillow and arms at side, and experimental supine=ES; supine without pillow but with towel roll along thoracic vertebrae and both arms in flexion, extension, and external rotation). TV was measured with the Propper Respirometer.
ANALYSIS: Wilcoxon signed-rank tests were performed with the circumferential and tidal volume measurements in the BS and ES PBPs.
RESULTS: Although no significant differences were observed, greater UC, MC, and LC CWE were observed in ES during TV breathing (TV increased 8% in ES) but less UC, MC, and LC CWE occurred during VC breathing as shown below.

		BS	ES		BS	ES
	UC	-0.07"	-0.05"		-0.03"	-0.23"
TV:	MC	-0.05"	-0.02"	VC:	-0.36"	-0.39"
	LC	+ 0.32"	+0.45"		+ 0.49"	+0.29"

CONCLUSION: ES PBPs improved CWE during TV breathing but worsened paradoxical CWE during VC breathing; neither of the PBPs prevented UC and MC paradoxical CWE.
RELEVANCE: Although ES PBPs improved CWE during TV breathing, VC breathing in ES PBPs worsened paradoxical CWE. PBPs such as this should be used cautiously when inspiratory demands of CSCI patients are increased. Future study of the effect of non-supine PBPs upon CWE in CSCI patients is warranted.

THE IMPORTANCE OF MODE OF EXERCISE TESTING AFTER CARDIAC TRANSPLANTATION: A PILOT STUDY.

Cahalin LP
Semigran MJ
Dec GW
Boston University, Sargent College, and Massachusetts General Hospital, Boston, MA.

PURPOSE: The purpose of this study was to compare the results of cycle ergometry (CE) and treadmill (TM) exercise testing after cardiac transplantation (CT).
SUBJECTS: Four active male CT patients (age) [mean ± SD] =55 ± 9 years; height=175 ± 8 cm; weight=89.55 ± 19 kg; years post - CT=1. 75 ± 0.65)
METHODS: Respiratory gas analysis and CE exercise testing were performed with a calibrated MedGraphics $CardiO_2$ and TM exercise testing was performed on a calibrated Quinton II treadmill using ramp protocols of 12.5 watts/min and the Naughton protocol, respectively.
ANALYSIS: Wilcoxon signed-rank tests were performed with the exercise test results.
RESULTS: Although not significantly different, greater levels of peak oxygen consumption (1534 ± 431 ml/min Vs 1252 ± 306 ml/min; p=0.06) and oxygen consumption at the ventilatory threshold (1284 ± 429 ml/min Vs 1004 ± 280 ml/min; p=0.06) were observed with TM exercise testing.
CONCLUSION: The greater levels of oxygen consumption at peak exercise and at the ventilatory threshold during TM exercise testing reflects a greater utilization of aerobic facilities that may be limited during CE exercise testing because of an earlier onset of muscular fatigue.
RELEVANCE: Despite published similarities in the metabolic cost of the above CE and TM exercise testing protocols, CT patients appear to have a less similar metabolic cost during CE and TM exercise testing than non-CT patients. This difference may in part be due to immunosuppressive drugs and skeletal muscle weakness of CT. The above observations are important since the peak oxygen consumption and ventilatory threshold of CT patients are often used to determine patient progress or deterioration. CE exercise testing may provide inaccurate information about peak oxygen consumption, ventilatory threshold, and patient status after CT.