

# Specialized Physical Therapy

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ReForm Physical Therapy, LLC

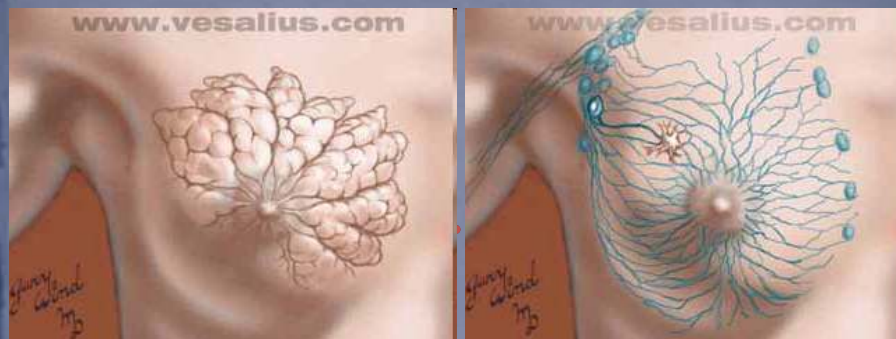
## Jeanna Viramontes, MPT, PRC

- 1999: Graduated from College of St. Benedict/St. John's University
- 2002: Master of Physical Therapy, Mayo School of Health Sciences
- 2002-2006: OSI Physical Therapy; started Women's Health Program in Stillwater
- 2006-2007: Larsen Sports Med & PT in Hudson; started Women's Health Program
- 2007: Certification in Postural Restoration from Postural Restoration Institute in Lincoln, NE
- 2008: Founded ReForm Physical Therapy, LLC
- 2002-present: extensive continuing education in Women's Health

## Overview

- Anatomy
- Asymmetry of the human body
- Effect of breast cancer treatment on the musculoskeletal system
- What can physical therapy do?
  - Integrate breathing/movement retraining into breast cancer rehab
  - More than just lymphedema treatment
  - Post-reconstruction

## Upper Quadrant



- Breast
  - Fat, glands, ducts, connective tissue
- Lymphatic System

## Upper Quadrant

- Muscles
- Nerves
- Blood Vessels
- Fascia (connective tissue)



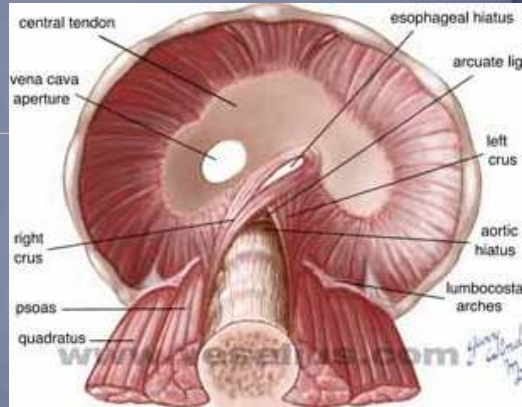
## Upper Quadrant

- Skeleton:
  - Ribcage
  - Scapula
  - Humerus
  - Clavicle



## The Diaphragm

- Dome-shaped muscle in the center of ribcage
- Inspiration
  - Central tendon moves down
  - Abdominals active
- Expiration
  - Central tendon moves up
  - Abdominals active
- Breathing dysfunction
  - Abdominal
  - Neck
  - Low back



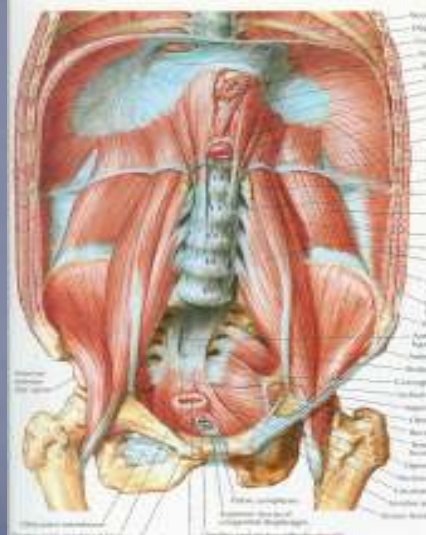
## The Asymmetrical Ribcage: Why?

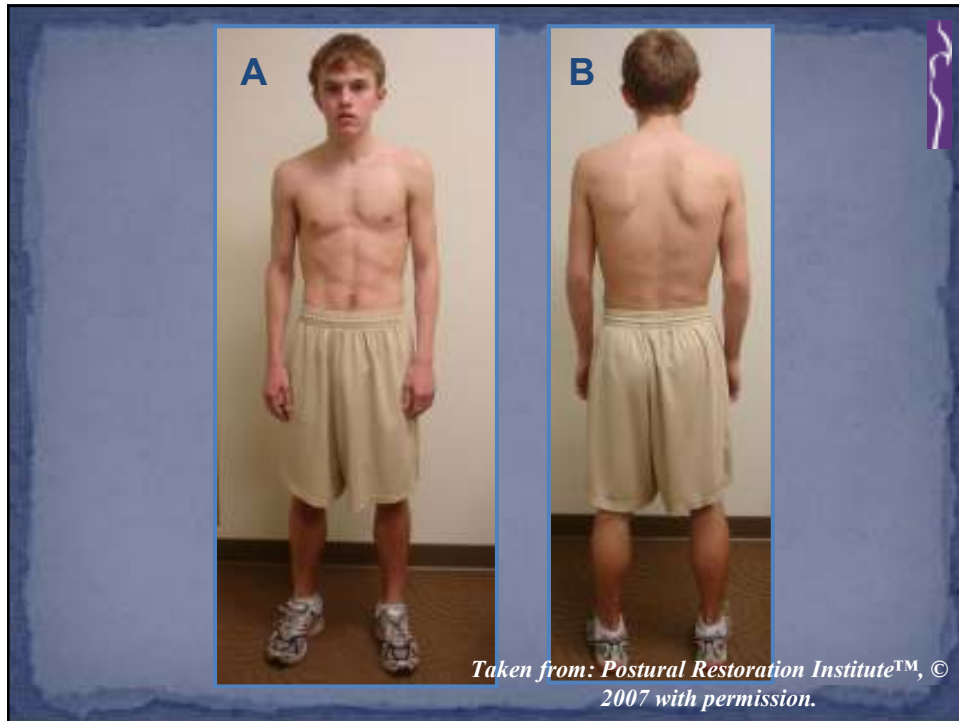
- Static Asymmetry
  - R hemi-diaphragm larger than L
  - Liver is positioned on R
  - Heart on the L
  - Lungs: 3 lobes on R, 2 on L
- Dynamic Asymmetry
  - Handedness
  - Repetitive overuse (sitting, reaching)
  - Positional Habits (stomach sleepers, standing on R leg)



# Asymmetry

- Due to asymmetry,
  - Diaphragm creates spinal orientation to R
  - Compensatory trunk rotation to L
  - L side of the pelvis comes forward
  - Tendency to stand on the R leg
  - Decreased expansion of R chest wall
  - TORQUE!





## Breast Cancer Treatment

- Surgery
  - Radical Mastectomy
  - Simple Mastectomy
  - Lumpectomy
  - Quadrantectomy
  - Breast reconstruction
- Chemotherapy
- Radiation

## Effects of Breast Cancer Treatment

- Scar tissue
  - Collagen fiber alignment
- Lymphedema
  - Accumulation of fluid due to insufficiency of lymph system
  - Protein, water, waste, white blood cells
- Skin, connective tissue break-down
- Fibrosis (hardening of tissue)
- Resulting muscular imbalance
  - Due to scar tissue/fibrosis
  - Due to reconstruction/ muscle compromise
  - Compounded by underlying asymmetry

## Treatment Goals

- Maintain/improve function of upper extremity
- Improve connective tissue mobility
- Improve scar tissue mobility
- Pain relief
- Improve lymphatic flow
- Improve breathing patterns/reduce tension

## How?

- Evaluation:
  - One hour + long
  - Full medical history
    - Systems review
    - History of other/past musculoskeletal problems
  - Shoulder, ribcage, pelvis, hips (ROM, position)
  - Gait assessment
  - Connective tissue mobility/integrity
  - Breathing
  - Upper limb circumference measurements
  - Develop a treatment plan based on your individual needs



## How?

- Patient Education
  - Lymphedema prevention/risk reduction
  - Positional guidelines to reduce asymmetry
  - Self scar mobilization
- Exercise program/activities to:
  - Reduce asymmetry between the R and L sides of the body
    - Reduces torque/tension
  - Restore effective breathing pattern (optimal position of diaphragm)
  - Restore neutral position of the pelvis
  - Facilitate specific muscles
  - Inhibit specific muscles





## How?

- Manual Therapy
  - To help restore symmetry
  - To increase soft tissue mobility
  - To increase scar mobility
  - Facilitate lymph drainage
  - Pain relief

## Why?

- The Pelvis:
  - Neutral pelvis:
    - Optimizes LE/trunk lymph flow
    - Goal: alternating, reciprocal movement of the lower extremity (pump)
    - Necessary for effective respiration
- The Ribcage:
  - Milking effect on the lymphatic ducts
  - Pressure changes with inspiration/expiration
  - Facilitates compression bandaging/ mm pump
  - Ineffective breathing leads to congestion
  - Effective breathing → alternating, reciprocal movement of upper extremity (pump)



## Why?

- Optimize function of the *entire system* (you)



## To Access Services:

[www.reformphysicaltherapy.com](http://www.reformphysicaltherapy.com)

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Thank you!

Other Resources:

Postural Restoration Institute: [www.posturalrestoration.com](http://www.posturalrestoration.com)

APTA Women's Health Section: [www.womenshealthapta.org](http://www.womenshealthapta.org)

APTA Oncology Section: [www.oncologypt.org](http://www.oncologypt.org)