Balanced Body Pilates Instructor Training

Reformer 1: Creating the Foundation

balanced body

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Reformer 1 Instructor Training

Welcome!

The Universal Reformer is the heart of equipment based Pilates and a wonderful tool for creating a fit and functional body.

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Pilates: The Art and Science of Contrology

"Through Contrology you first purposefully acquire complete control of your own body and then, through proper repetition of its exercises, you gradually and progressively acquire that natural rhythm and coordination associated with all your mental and subconscious activities.

Contrology is designed to give you suppleness, natural grace and skill that will be unmistakably reflected in the way you walk, play and work. You will develop muscular power with corresponding endurance, ability to perform arduous duties, to play strenuous games, to walk, run or travel for long distances without undue body fatigue or mental strain."

– Joseph H. Pilates

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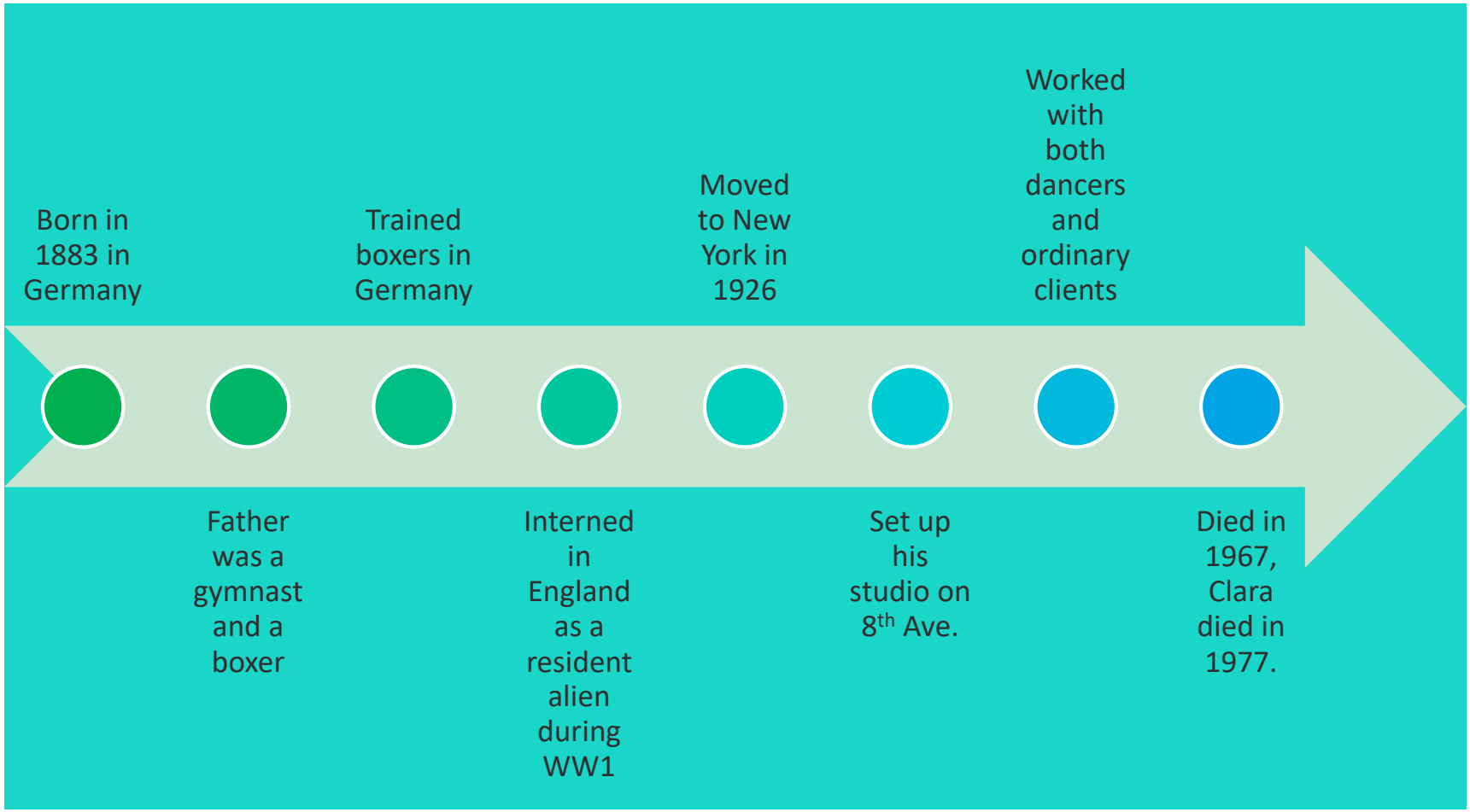
A Brief History of Joseph Pilates



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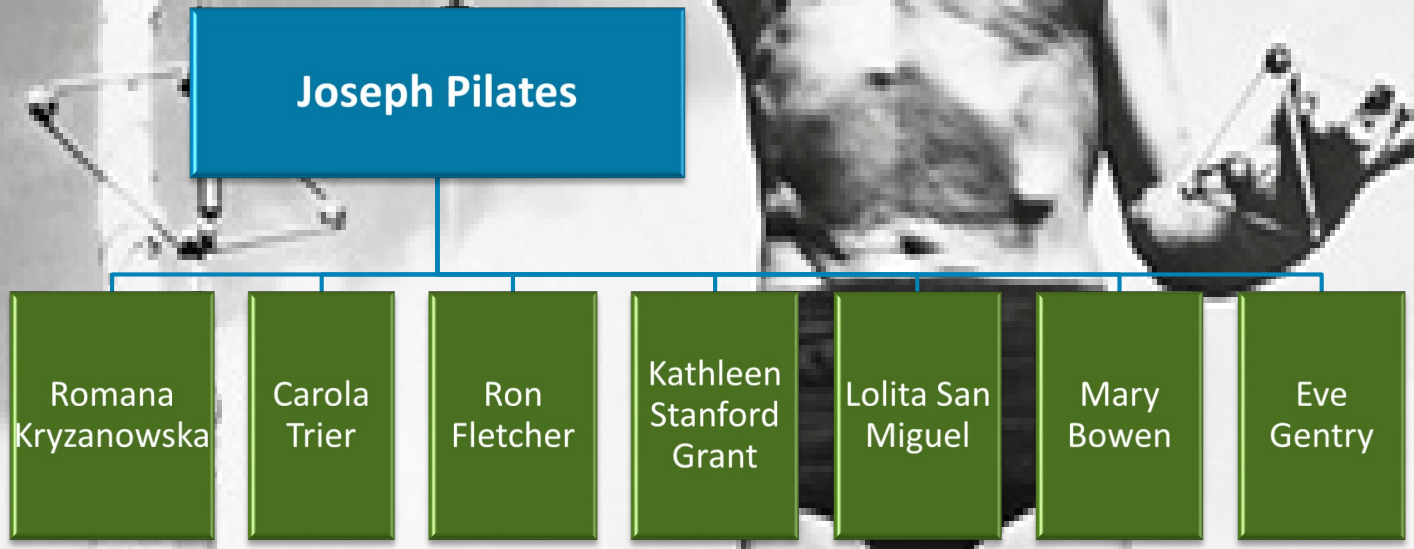
The Pilates Family Tree

All of these teachers studied with Joseph Pilates and taught his work to the next generation. Without their dedication, the Pilates Method would not have survived.



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The Balanced Body Lineage

1st Generation

Ron Fletcher, Eve Gentry, Romana Kryzanowska, Carola Trier, Lolita San Miguel and Kathy Grant

2nd Generation

Michelle Larson, Alan Herdman, Jean Claude West, Marie-Jose Blom, Karen Clippinger and Elizabeth Larkam

The Pilates teachers, physiotherapists, doctors and patients at St. Francis Memorial Hospital Center for Sports Medicine, Dance Medicine Division

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Pilates Principles

- Breathing
- Concentration
- Control
- Centering
- Precision
- Balanced Muscle Development
- Rhythm/Flow
- Whole Body Movement
- Relaxation

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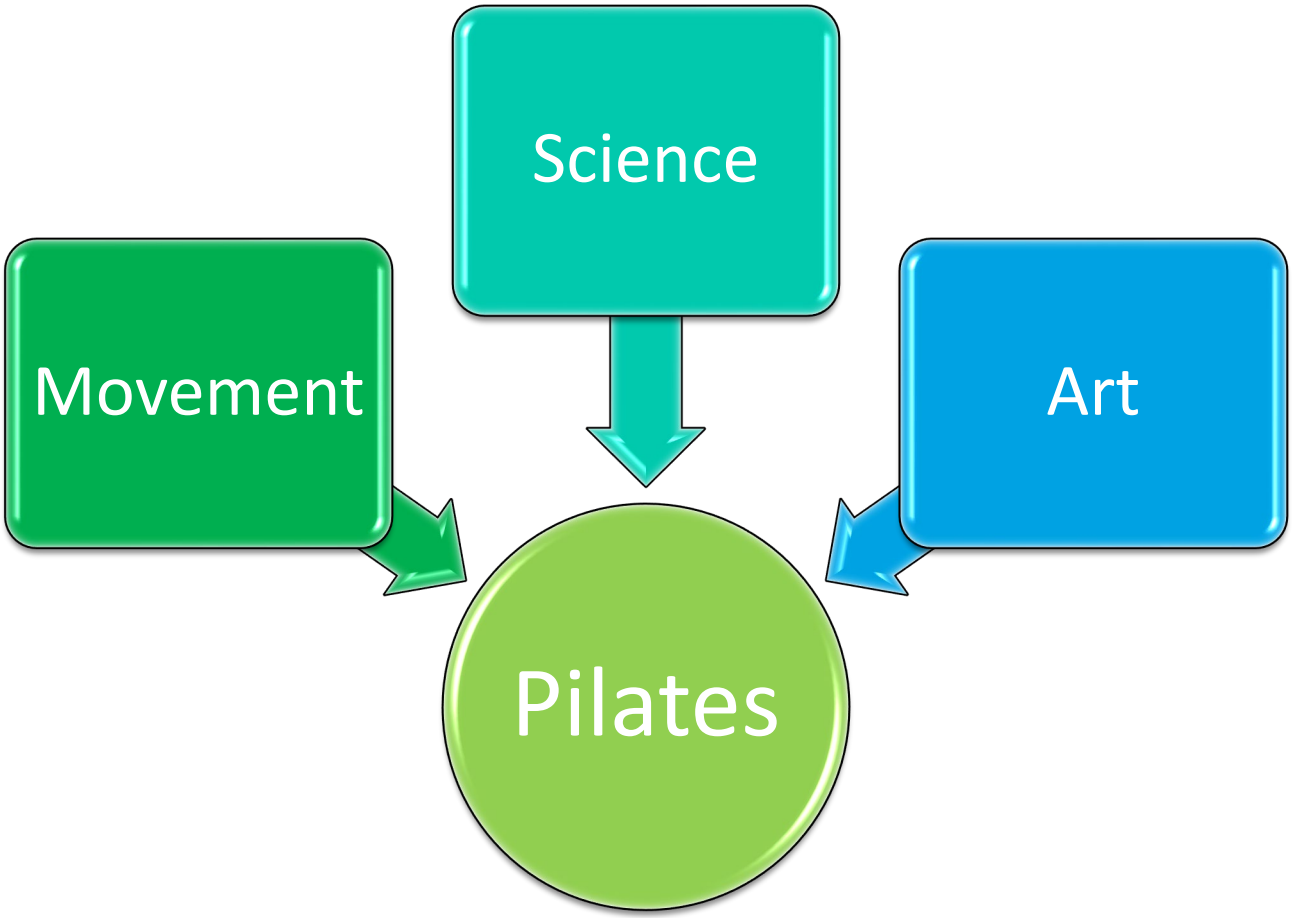
Balanced Body Pilates



Balanced Body Pilates brings together the best aspects of Joseph Pilates original exercises with modifications, additions and variations inspired by modern research into biomechanics and movement science.

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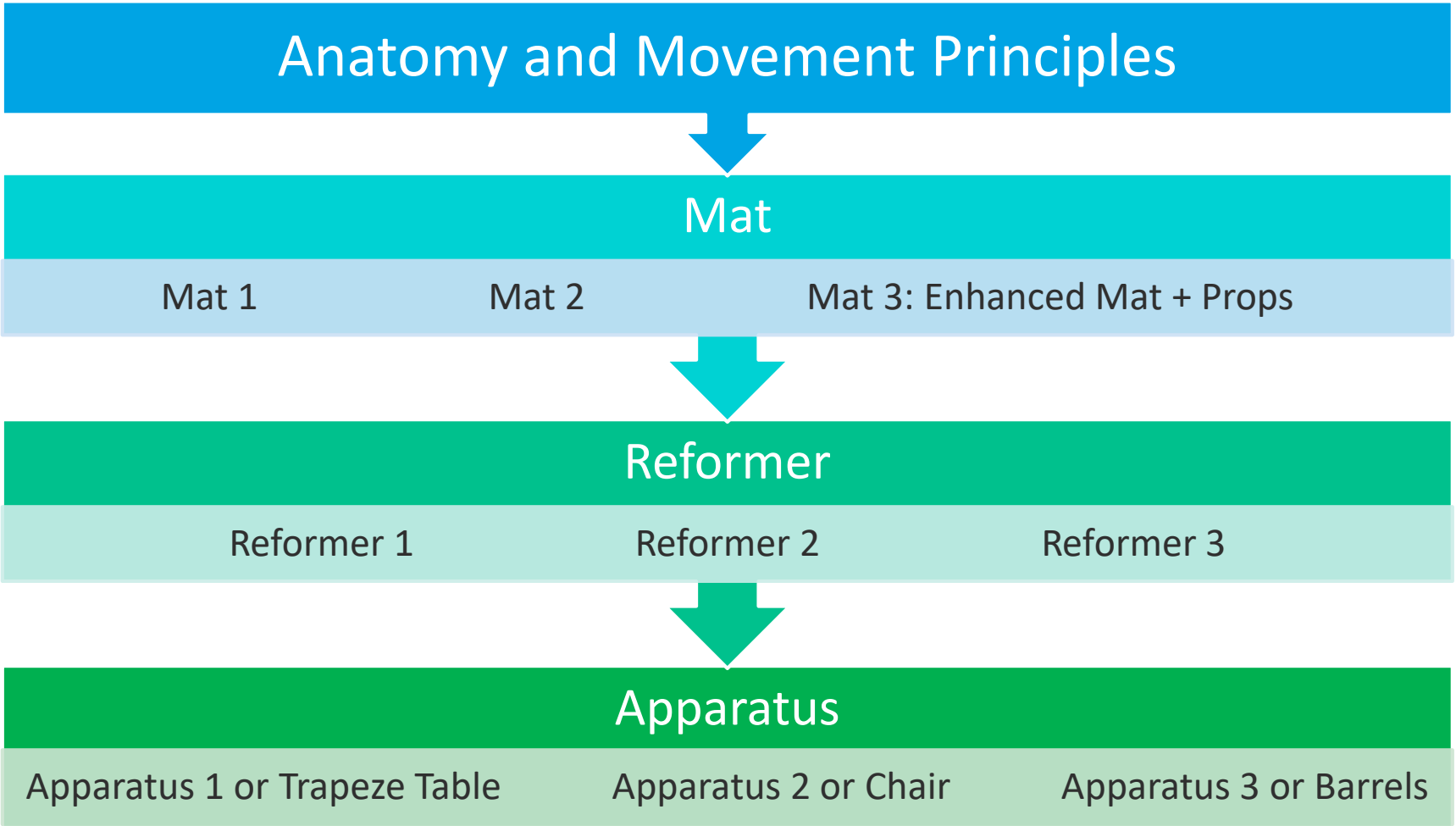
Program Organization



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Requirements for Mat and Reformer

Prerequisites:
20 Reformer classes required - 1 year teaching experience recommended

↓

Complete Anatomy and Movement Principles

↓

Complete Mat Course Work
Mat 1 Mat 2 Mat 3

↓

Complete Reformer Course Work
Reformer 1 Reformer 2 Reformer 3

↓

Complete 20 Mat and 30 Reformer personal sessions, 45 observation hours and 125 student teaching hours

↓

Take the final exam

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Balanced Body Pilates Instructor Training

Requirements for Reformer

Prerequisites:

20 Reformer classes required - 1 year teaching experience recommended

Complete Anatomy and Movement Principles

Complete Reformer Course Work

Reformer 1 Reformer 2 Reformer 3

Complete 30 Reformer personal sessions, 30 observation hours and 90 student teaching hours

Take the final exam

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Reformer 1 Instructor Training

Reformer 1 introduces the foundational exercises on the Universal Reformer.

Exercise categories include

- Footwork
- Supine abdominals and arm work
- Feet in Straps
- Knee Stretch
- Short Box Abdominals
- Long Box Prone exercises
- Plank exercises
- Seated Arm Work
- Standing
- Lunge
- Mermaid/Side Stretch

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Reformer 1

Reformer Introduction

Allegro 1

Rialto Reformer

Allegro 2

Studio Reformer

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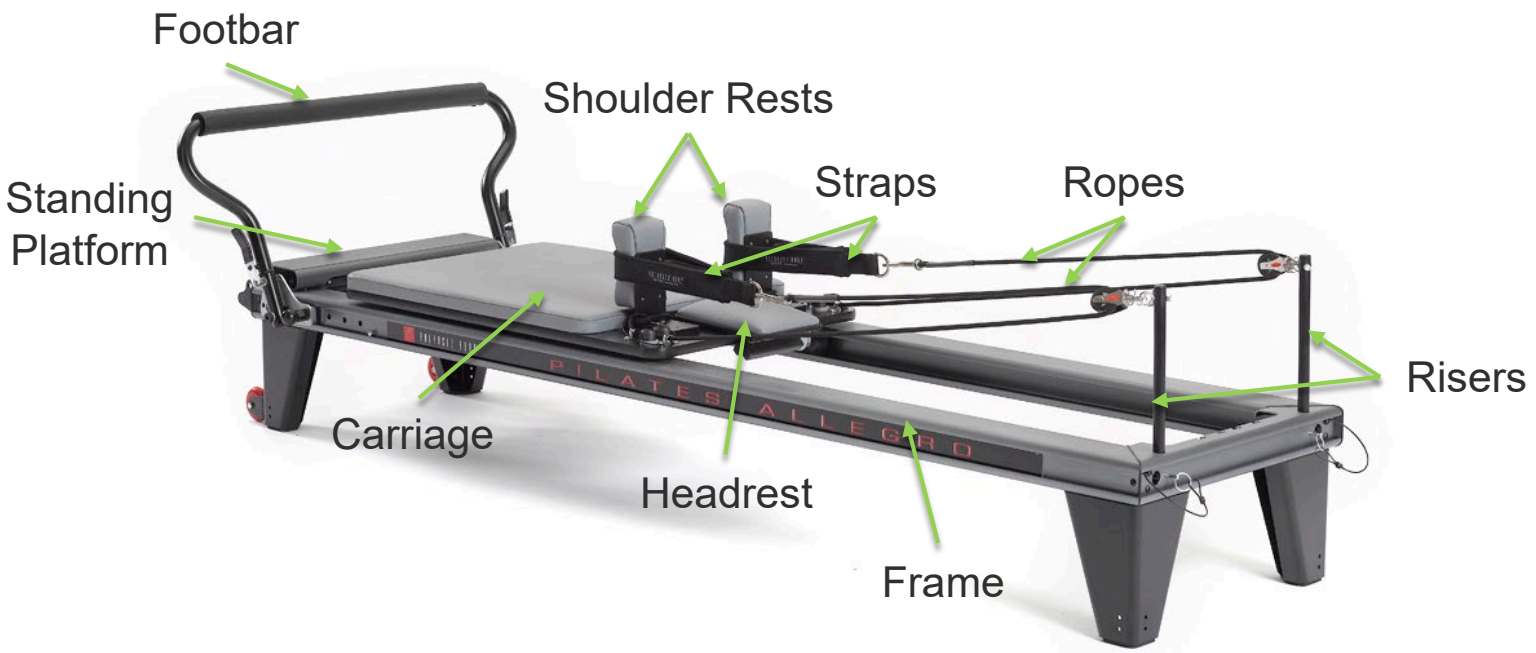
Reformer 1

Reformer Introduction



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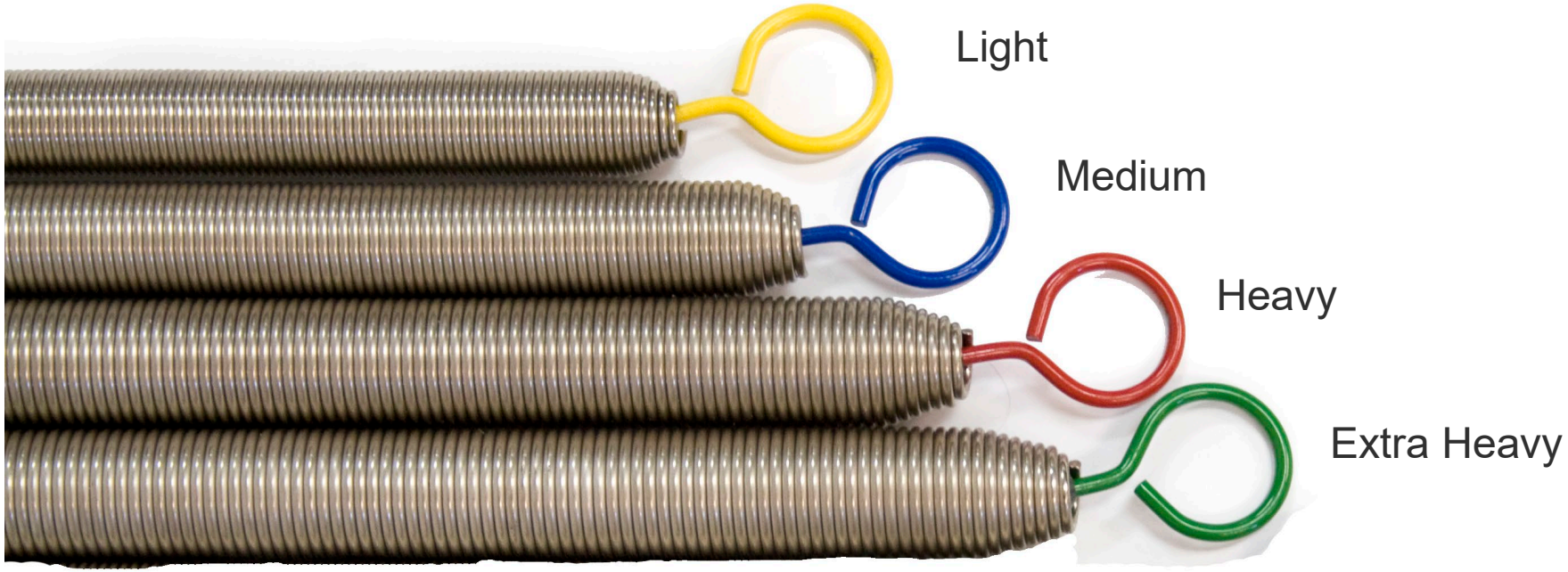
Reformer Introduction



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Balanced Body Movement Principles

Definition:

Balanced Body Movement Principles are the key anatomical and biomechanical concepts that underlie the Pilates Method.

The Movement Principles include the pre Pilates exercises illustrating the essential movements on which the repertoire is built.

Form the foundation for good movement in Pilates, in athletic activities and in daily life.

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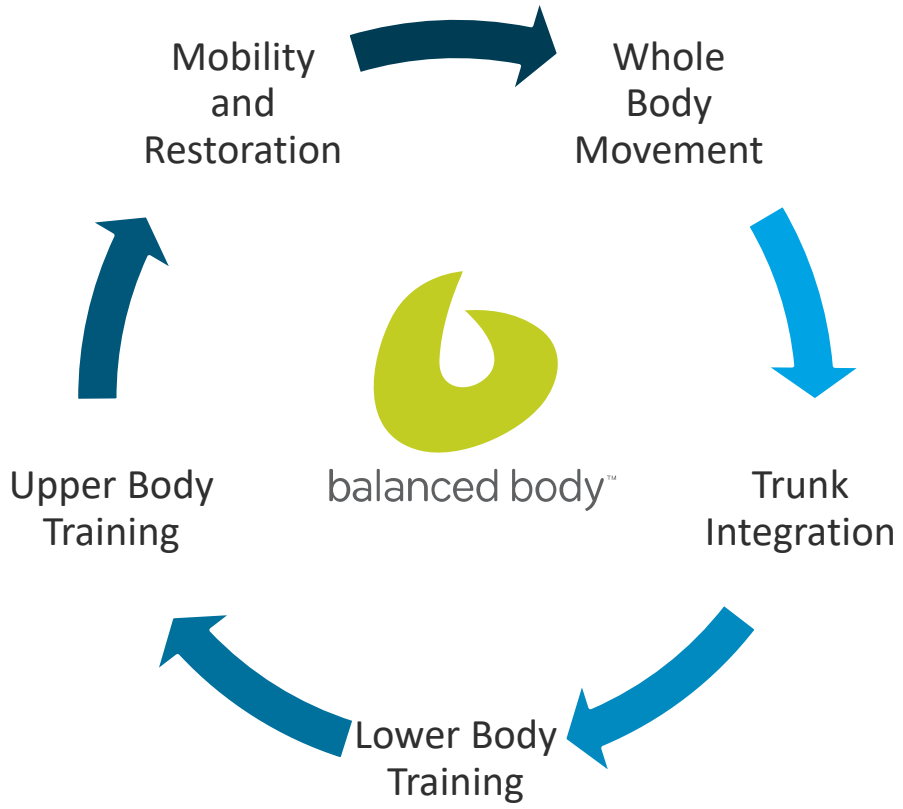
Balanced Body Movement Principles



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Movement Principles

Lower Body Training

Effectively training the lower body involves three primary principles

Optimize the alignment of the lower limb	Create balanced strength and mobility around the hip, knee and ankle.	Develop strength and endurance for daily and athletic activities

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Movement Principles

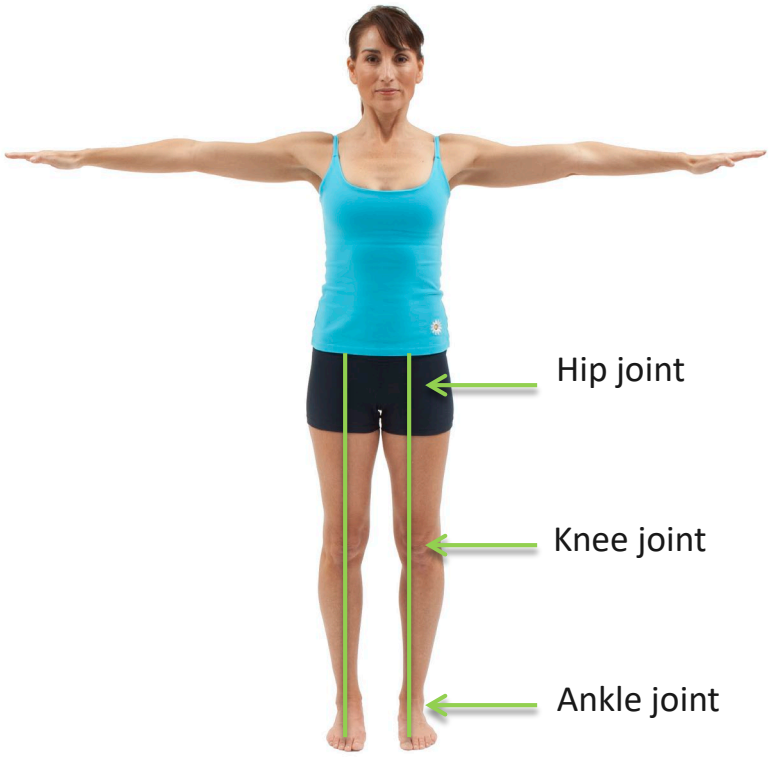
Aligning the Lower Limb

Optimum lower limb alignment means the center of the hip, knee and ankle joint are in a line perpendicular to the floor.

The femur and tibia are not rotated relative to each other.

The knees are not hyperextended.

The tibia is relatively straight.



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Movement Principles

Creating Muscular Balance

Movements of the Hip			Knee Flexion and Extension	Ankle dorsiflexion and plantar flexion	Movement in multiple planes, balance and coordination
Flexion and extension	**Abduction and adduction**	**Medial and lateral rotation**	Footwork Knee Stretch	Footwork	Feet in Straps Standing Jumping
Footwork Feet in Straps Knee Stretch	Feet in Straps Standing	Footwork Feet in Straps			

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Reformer 1 Exercises

Footwork

Focus: Leg Alignment - Hip and Knee Flexion and Extension - Hip Internal and External Rotation - Ankle Plantarflexion and Dorsiflexion

Variations

- Heels
- Toes
- Pilates V
- Wide (2nd position)
- Internal Rotation
- Flex/Releve
- Running in Place

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Reformer 1

Correcting Alignment on the Reformer

Footwork

- Foot placement – prehensile, dorsiflexion
- Ankle plantar flexion
- Using bands and balls
- Hip adjustments
- Asymmetrical footwork

Feet in Straps

- Controlling hyperextension
- Balancing hip rotation
- Strengthening hamstrings and adductors
- Flexibility of hip extensors, hip flexors and adductors

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Movement Principles

Alignment Anomalies – Pelvis and Hips

Anterior pelvic tilt

When the ASIS is anterior of the pubic bone.

Posterior pelvic tilt

When the ASIS is posterior of the pubic bone

High hip or low hip

When one ilium is higher than the other

Pelvic rotation

When the pelvis is rotated with one ilium moving toward the midline and one moving away

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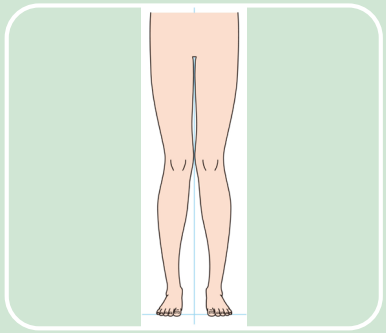
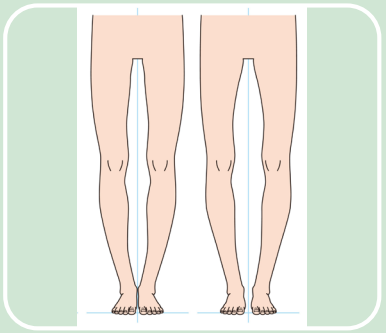
Manual pages 14 - 18

Movement Principles

Alignment Anomalies – Legs





Medial Femoral Rotation

The patella's angle toward each other and the femurs are medially rotated.

Lateral Femoral Rotation

The patella's angle away from each other and the femurs are laterally rotated.

Genu Valgum Knock Knees

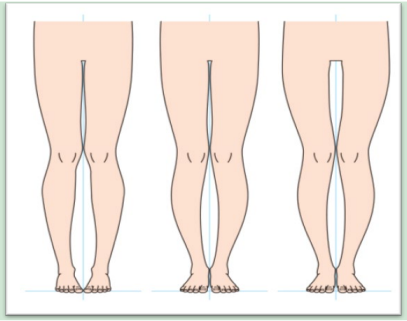
In standing alignment with the legs parallel, the medial knees touch but the medial ankles do not.

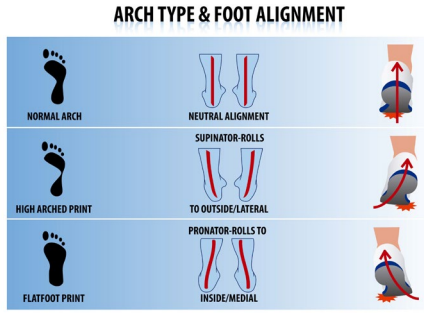
Genu Varum Bow Legs

In standing alignment with the legs parallel when the medial ankles touch but the knees don't. Decreased Q

Movement Principles

Alignment Anomalies – Legs and Feet





Knee Hyperextension

In standing alignment viewed from the side when the knees are posterior to the plumb line.

Tibial Torsion or Bowing

When the tibia is not lined up with the femur creating torsion at the knee and ankle.

Foot Pronation and Supination

When the foot is not balanced between the medial and lateral aspect.
Pronation – weight on midline
Supination – weight on lateral foot

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Manual pages 14 - 18

Movement Principles

The Knee

The knee is the intersection of the forces from the ground up and from the torso down.

The constant balancing act requires the knee to be strong, flexible and stable in a wide range of positions.

In ordinary activities such as running or climbing stairs, the knee is subjected to as much as 4x the body weight of the person.

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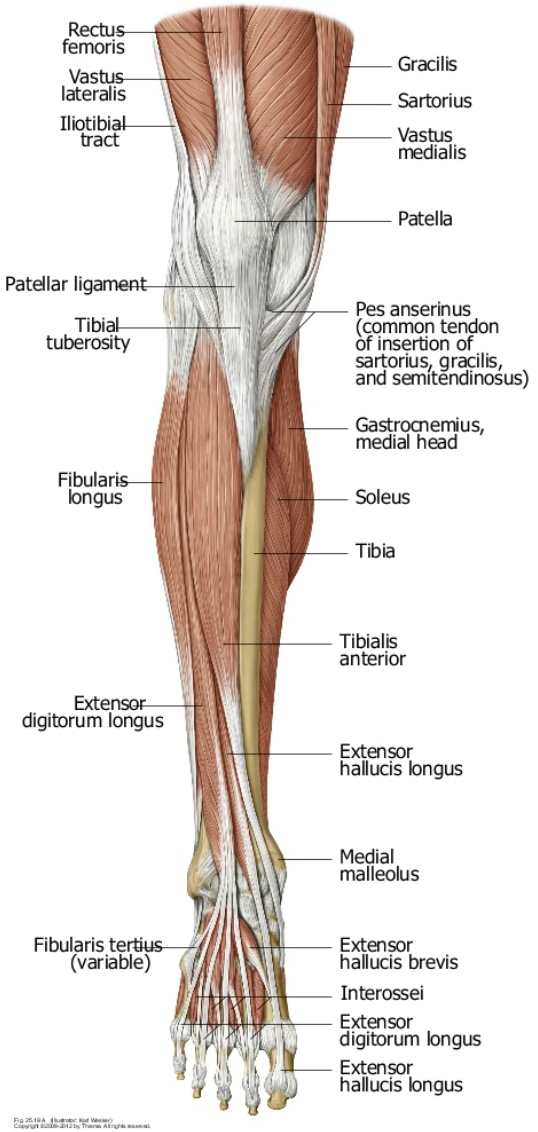
Movement Principles

The Knee

Key training principles for the knee include:

- Correct leg alignment
- Create muscular balance
- Align patellar tracking
- Train endurance and strength



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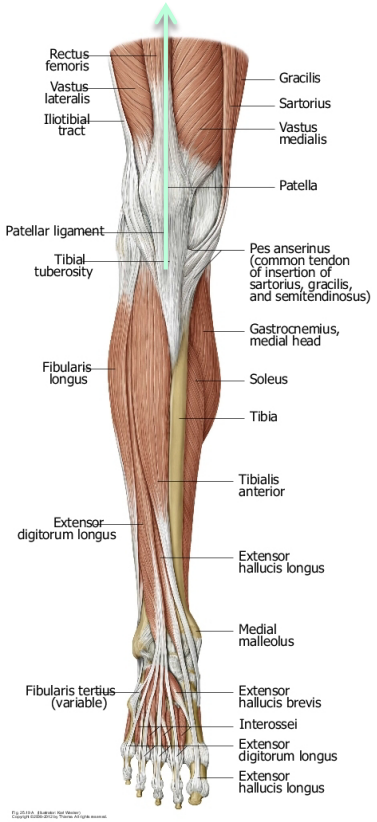
Movement Principles

The Knee

Dysfunctional patellar tracking

- When the quadriceps contract, the patella should glide superiorly in a straight line.
- If the alignment or muscle balance are off, the patella will track laterally.
- This is usually caused by a tight lateral thigh and a weak vastus medialis.
- This can lead to knee pain.



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Movement Principles

The Lower Leg, Ankle and Foot

The tibia and fibula connect the knee to the ankle and foot.

The alignment of the lower leg, ankle and foot directly effects how ground forces are transferred from the foot to the knee to the hip to the spine.

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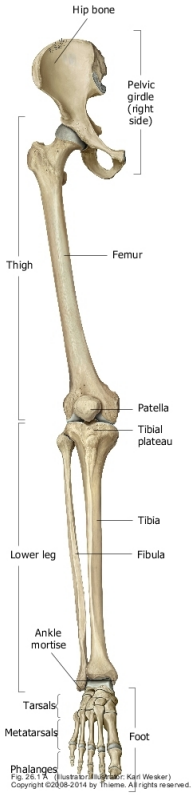
The Lower Leg, Ankle and Foot

Tibial Torsion

- Alignment
  - Correct hip and knee first, then correct lower leg as tolerated.
- Strengthen
  - Depends on rotation of lower leg and Q angle

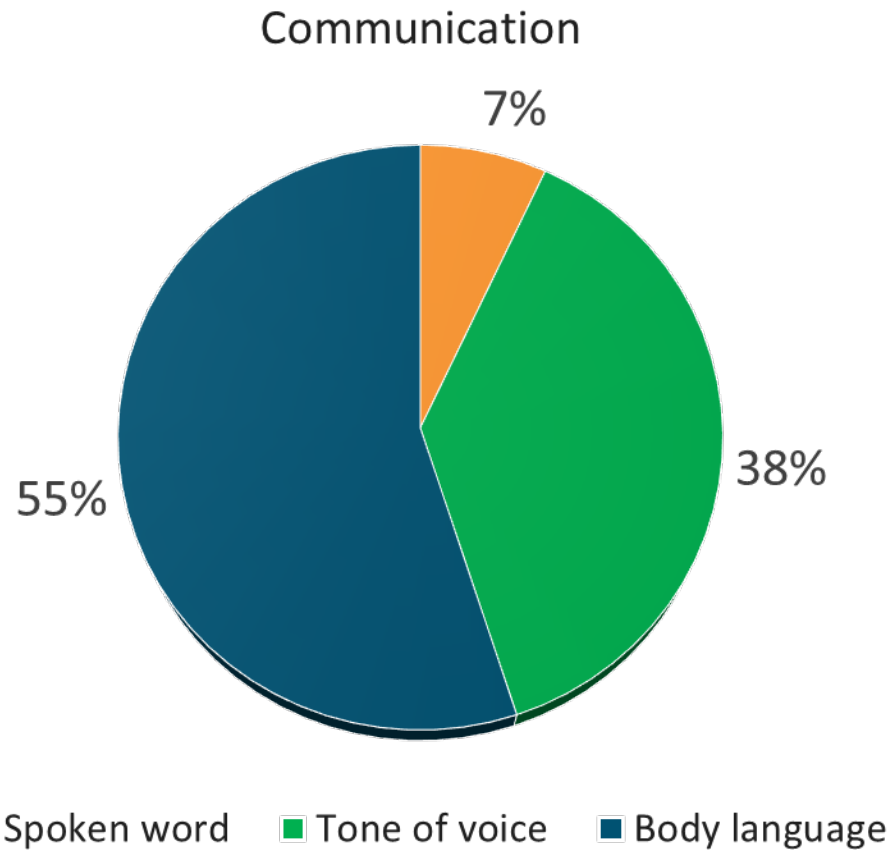


Movement Principles

Verbal and Non Verbal Cues

Dr. Albert Mehrabian's 7-38-55 Rule:

- *What* we say is less significant than
- *How* we say it
- *How we move* as we are saying it



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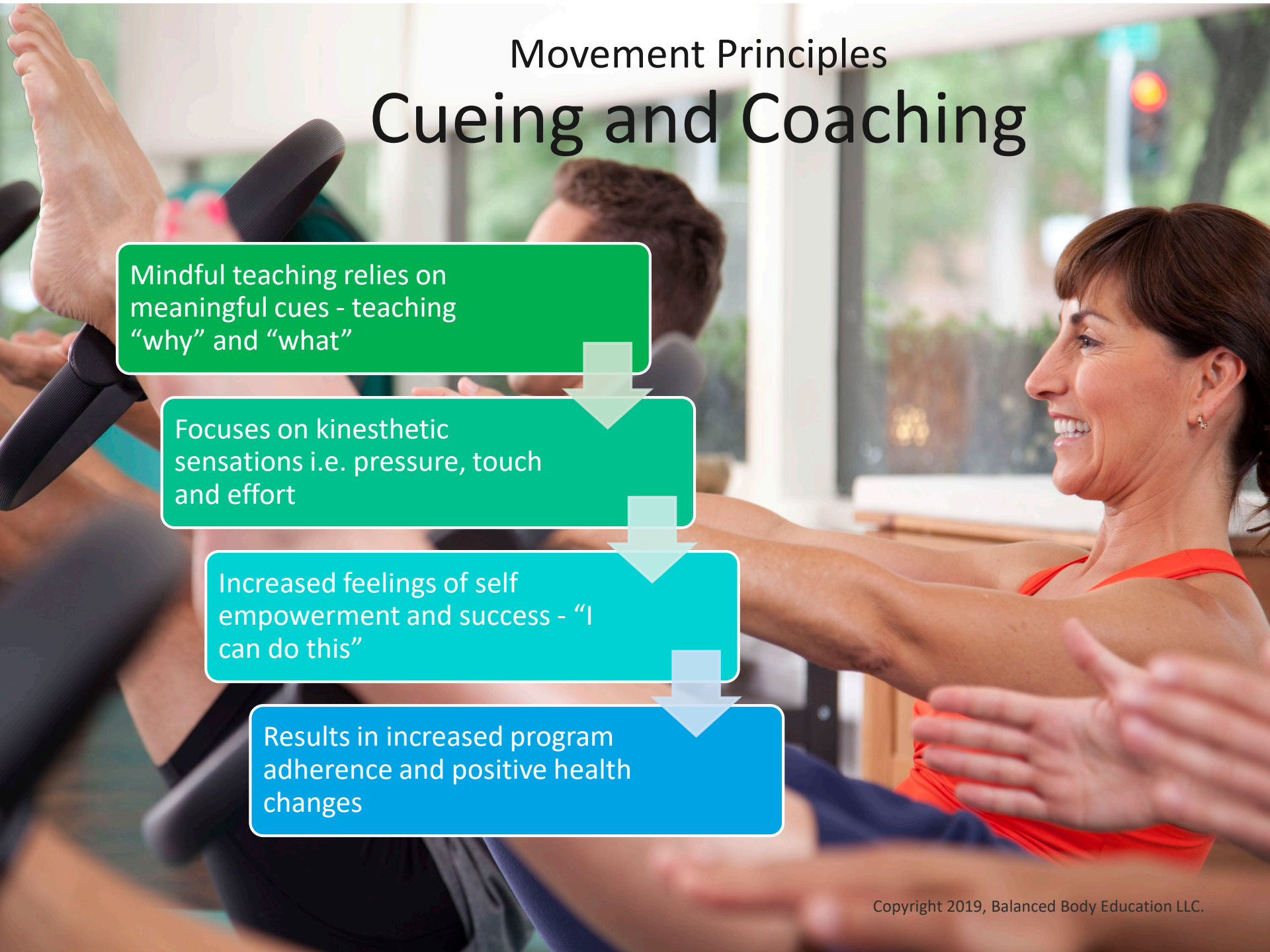


Movement Principles

Cueing and Coaching

Mindful teaching relies on meaningful cues - teaching "why" and "what"

Focuses on kinesthetic sensations i.e. pressure, touch and effort

Increased feelings of self empowerment and success - "I can do this"

Results in increased program adherence and positive health changes

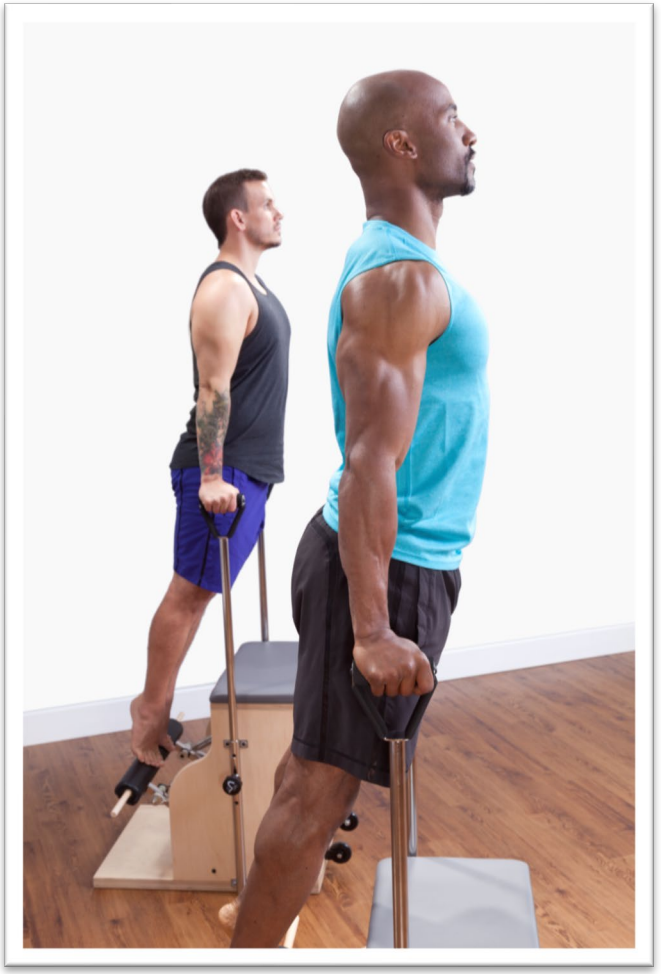
Movement Principles

Cueing and Coaching

Provide clear direction

Focus on the experience

Provide the how and the why



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Movement Principles

Cueing and Coaching

1) Exercise direction

Be straightforward, simple and consistent!

- Exercise name
- Equipment setup
- Body position
- Number of reps (to help them budget their energy)
- Movement sequence

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Movement Principles

Cueing and Coaching

2) Mindful cues

Feeling, thinking and observing

- Quality over quantity
- Engage the client in their experience
- Tell them why the exercise is important
- Let them observe what's happening

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Movement Principles

Cueing and Coaching

Examples of mindful cueing

Breath	Physical sensation	Why	Observing their experience
• "Inhale as you push back, exhale as you return"	• "Feel equal weight on both sit bones"	• "Strengthening your legs helps you get up and down from a chair"	• "Do you notice your right leg is straightening faster than your left one?"

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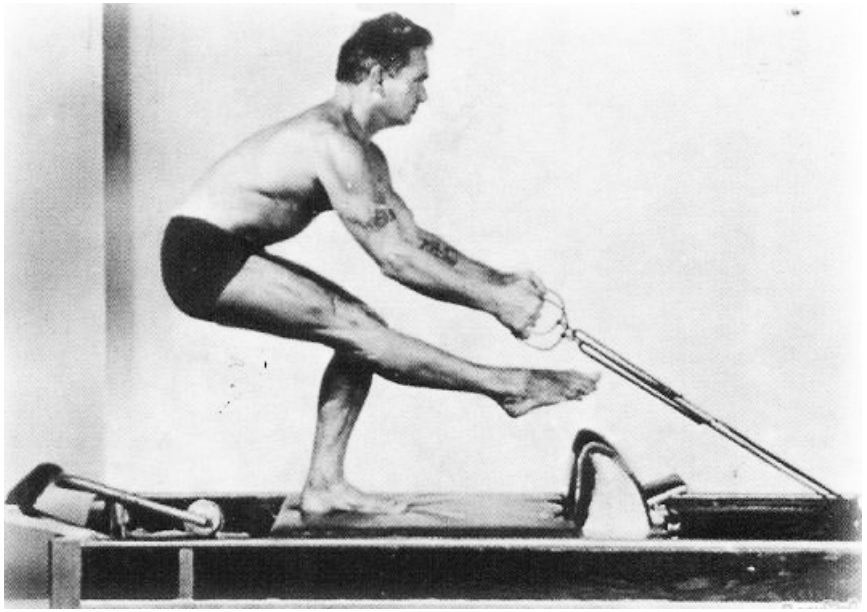
Inspiration from Mr. Pilates

"If your spine is inflexibly stiff at 30, you are old. If it is completely flexible at 60, you are young."

-Joseph Pilates



Reformer 1 Exercises

Roll Down

Focus: Trunk Integration - Spinal Flexion - Abdominal Strength

Variations

- Oblique
- Add arms
  - Biceps curl
  - Posterior shoulder press
  - Rows

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Reformer 1 Exercises

Supine Arm Work

Focus: Upper Body Strength - Pelvic Stability

Variations

- Triceps pull
- Posterior deltoid pull
- Arm Circles
- Lat pulls
- Cheerleader

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Movement Principles

Trunk Integration

Breathing

Core work

- Transverse Abdominis, Multifidi, Pelvic Floor, Diaphragm

Outer unit or lumbopelvic stability

- Anterior Oblique Sling, Posterior Oblique Sling, Deep Longitudinal System, Lateral System

Spinal mobility

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Movement Principles

The Core or Inner Unit

The core, powerhouse or inner unit, is the foundation of every exercise in Pilates.

The elements of the core include:

- Multifidi
- Transversus abdominis
- Pelvic floor
- Diaphragm

The core stabilizes the spine through a complex series of interconnections between the fascia, the muscles and the bones.

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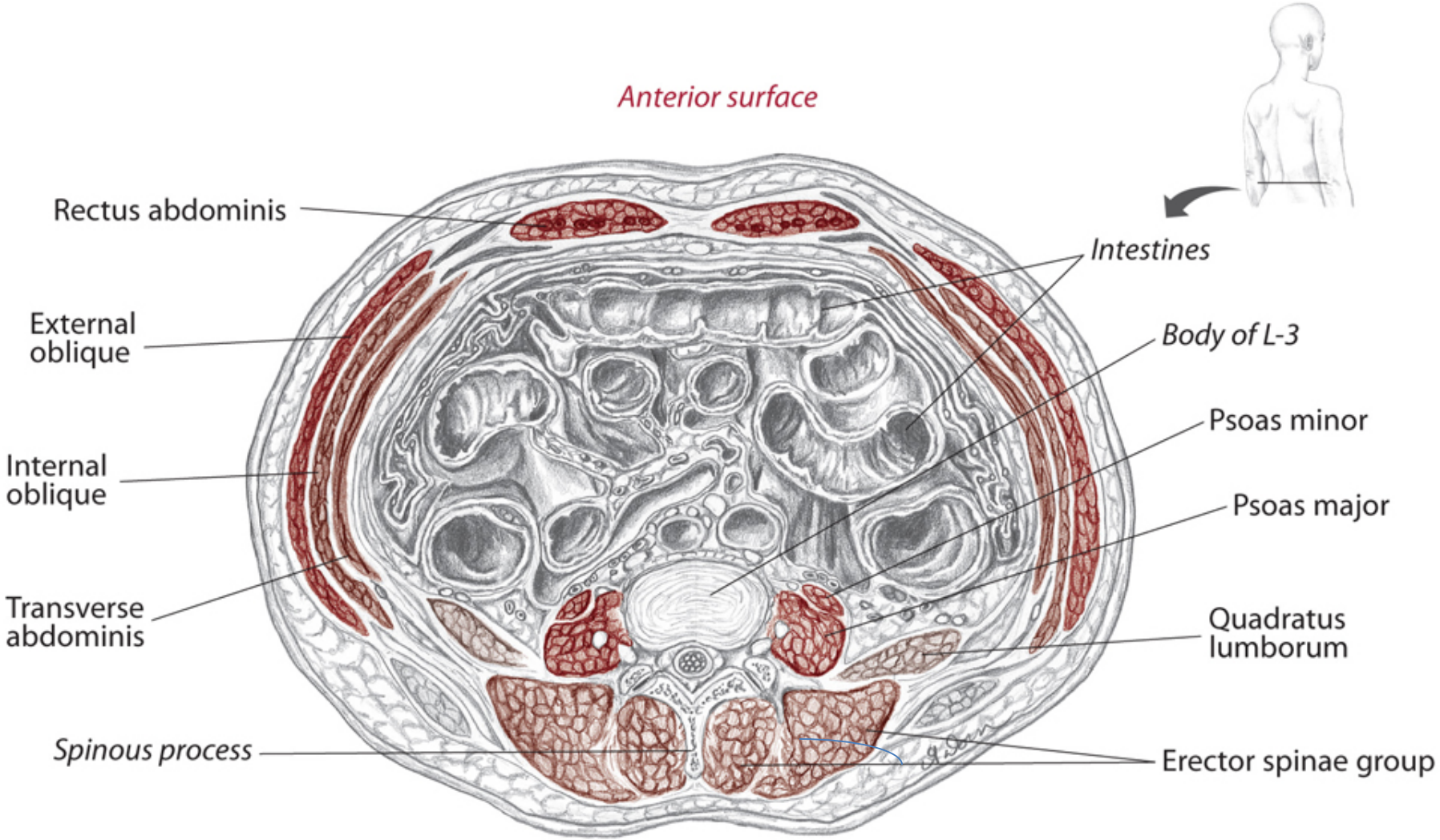

(4.48) Cross section of the abdomen at the level of the third lumbar vertebra

Movement Principles

Lumbopelvic Stability

Lumbopelvic stability is the ability of the neuromuscular system to maintain balance between the rib cage, lumbar spine and pelvis.

Good core activation combined with the action of the 4 “outer units” is required for lumbopelvic stabilization.

Maintaining balance and strength in the four outer units is essential for preventing low back pain and for creating efficient and graceful movement patterns.

This model is based loosely on the work of Diane Lee, PT, FCAMT, CGIMS. and Andry Vleeming, PhD, PT

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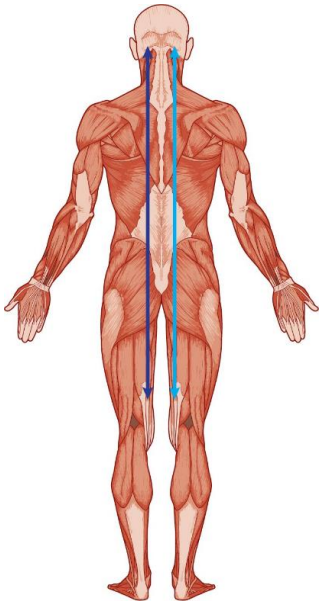
Movement Principles

The 4 Outer Units

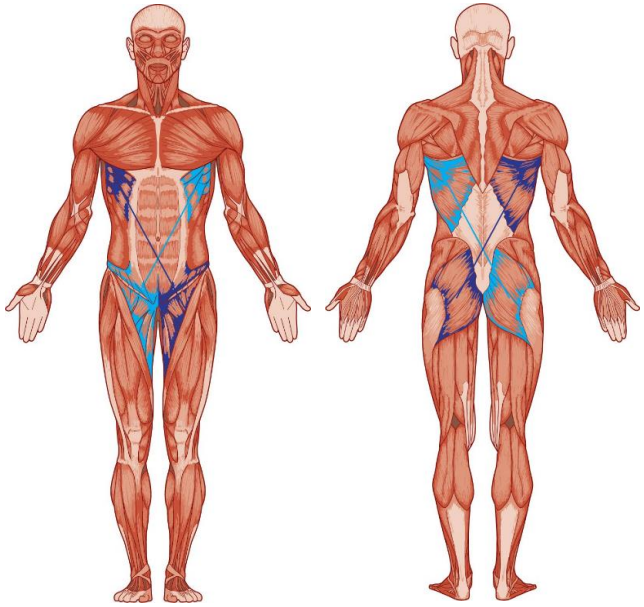


Deep Longitudinal System

- Erector Spinae, Quadratus Lumborum, Thoracolumbar Fascia, Sacrotuberous Ligament and the Biceps Femoris, Gastrocnemius, Plantar Fascia and Toe Flexors

Function

- This system holds us upright against gravity and creates spinal extension.

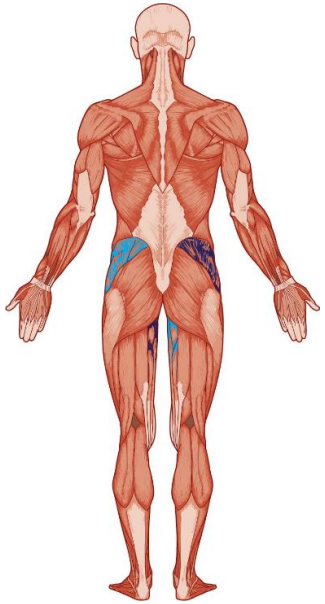


Anterior and Posterior Sling

- Anterior = Anterior serratus, External oblique, Contralateral internal oblique and adductors
- Posterior = Latissimus dorsi and Contralateral glutes

Function

- Together stabilize the torso and in opposition create flexion, lateral flexion and rotation of the torso



Lateral System

- Hip abductors and adductors
- Quadratus Lumborum

Function

- Keeps the pelvis balanced over the femurs when walking, running or balancing on one leg.
- Imbalances lead to an un-level pelvis when standing on both legs.

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Reformer 1 Exercises

The Hundred

Focus: Abdominal Strengthen - Trunk Integration - Hip Flexion

Variations

- Hundred prep
- Level 1 - Knees and hip flexed
- Level 2 - Legs straight to ceiling
- Level 3 - Legs lower
- Leg variations
  - Raise and lower
  - Flex and point the feet
  - Rotate the legs medially and laterally

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Reformer 1 Exercises

Kneeling Abdominals

Focus: Abdominal Strength - Trunk Integration - Hip Flexion

Variations

- Facing Back
  - Flat back
  - Round back
  - Oblique
  - Lat pull
  - Single leg
- Facing front
  - Hips extend and flex
  - Shoulders flex and extend
  - Combine hips and shoulders

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Reformer 1 Exercises

Feet in Straps

Focus: Lumbopelvic Stability - Hip Adduction, Flexion, Extension and Medial and Lateral Rotation Strength and Flexibility

Variations

- Leg Lowers
- Scissors
- Circles
- Frogs

Stretches

- Hamstring
- Lateral Hamstring
- Hip Flexor
- Adductor 1 and 2 legs

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Reformer 1 Workouts

Warm Up 1

Footwork

Feet in Straps

Supine Arm Work

100's prep or 100

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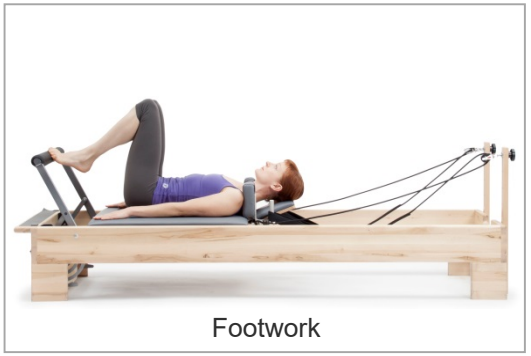
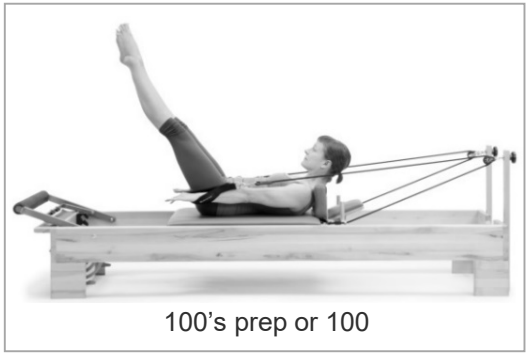
Reformer 1 Workouts

Warm Up 2



Footwork

Supine Arm Work



100's prep or 100

Feet in Straps

Roll Down

Kneeling Abs Back

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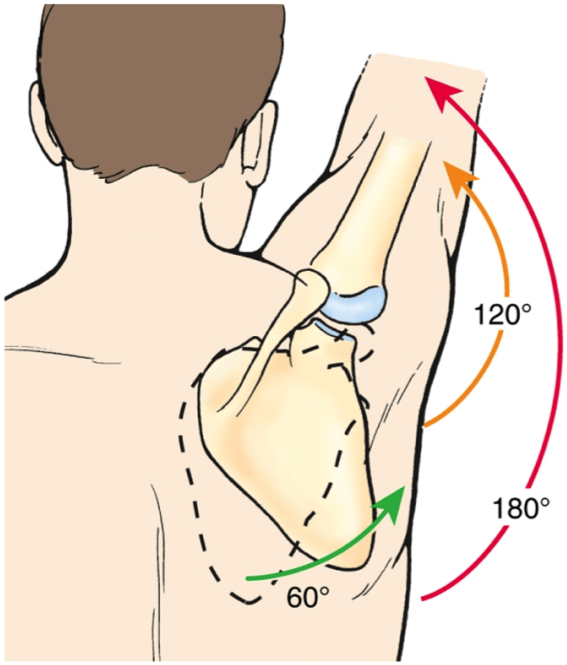
Movement Principles

Scapulohumeral Rhythm

In the Long Box Pulling Straps, Overhead Press and Swan, the arms move overhead.

The scapulae must upwardly rotate to accommodate the movement of the humerus.

Observe the movement of the scapulae for symmetry and smoothness.



(C) Scapulo-humeral rhythm. The scapula and humerus move in 1:2 ratio. When the arm is abducted 180 degrees, 60 degrees occurs by rotation of the scapula, and 120 degrees by rotation of the humerus at the shoulder joint.

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Reformer 1 Exercises

Long Box Pulling Straps

Focus: Spinal Extension - Arm Strength

Variations

- Pulling down
- Pulling in a T
- Triceps Pull Back
- Pulling Straps

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Reformer 1 Exercises

Long Box Overhead Press & Swan

Focus: Spinal Extension - Arm Strength

Variations

- Hands up
- Hands in
- Single arm
- Swan

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Reformer 1 Exercises

Short Box Abdominals

Focus: Abdominal Strength - Spinal Flexion

Variations

- Round back
- Flat back
- Arm variations
  - Arms across chest
  - Holding bar
  - Picture frame

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Reformer 1 Exercises

Bridging & Pelvic Lift

Focus: Glute – Hamstring - Back Strength - Spinal Flexion

Variations

- Bridging – stable carriage
  - Heels or toes
  - Feet in V
  - Wide
  - Parallel, sit bone width
  - Parallel, together
- Pelvic Lift
  - Single leg

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Reformer 1 Workouts

Trunk Integration

SB Abdominals

Overhead Press

LB Overhead Press Swan

Pulling Straps

Pulling Straps in a T

Pulling Straps in Extension

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Reformer 1 Workouts

Lower Body Sequence

Footwork

Bridging

Bridging Single Leg

Feet in Straps

Scissors, Circles, Leg Lowers, Frogs

Stretches

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Reformer 1 Exercises

Knee Stretch

Focus: Scapular Stability - Pelvic Stability - Hip Flexion/Extension Strength - Trunk Integration

Variations

- Single Leg Flat Back
- Single Leg Round Back
- Balance challenge
- Double Leg Flat Back
- Double Leg Round Back

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Reformer 1 Exercises

Elephant

Focus: Scapular Stability - Trunk Integration - Hamstring Flexibility

Variations

- Round Back
- Flat Back
- Walking

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Reformer 1 Exercises

Long Stretch

Focus: Scapular Stability - Trunk Integration - Hamstring Flexibility

Variations

- Upper back flexion
- Upper back extension
- Push Ups

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Reformer 1 Exercises

Up Stretch

Focus: Scapular Stability - Trunk Integration - Hamstring Flexibility

Variations

- Light spring

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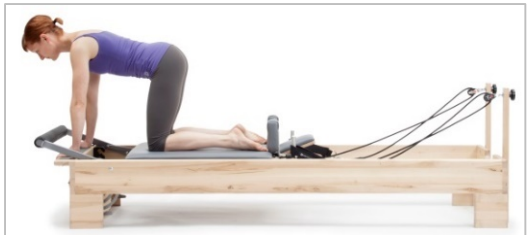
Reformer 1 Workouts

Plank Progressions



Kneeling Abs Front

Kneeling Abs Back

Kneeling Abs 1 Leg

Knee Stretch Single Leg

Elephant

Long Stretch

Up Stretch

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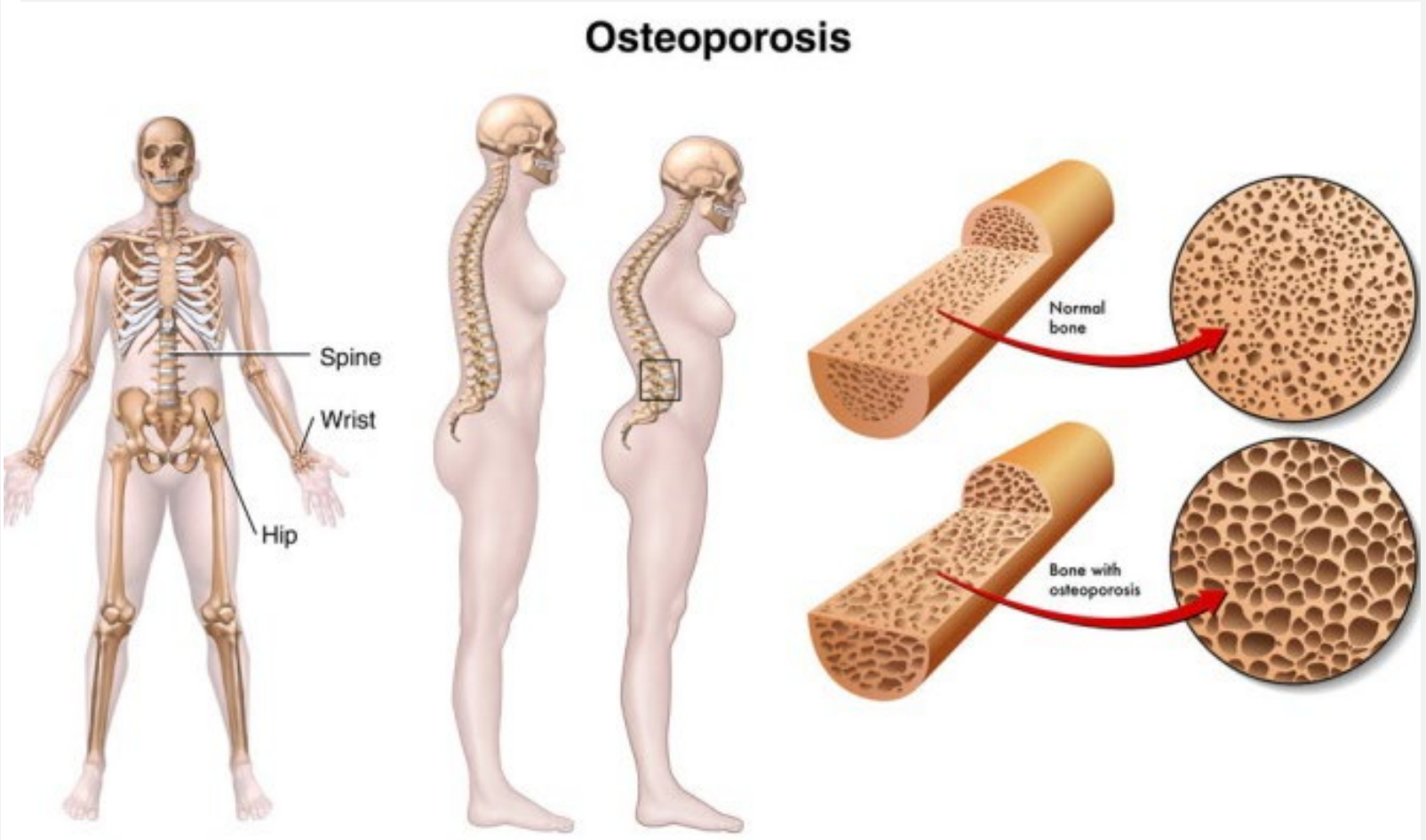

Pilates and Osteoporosis

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What is Osteoporosis?

Osteoporosis, or porous bone, is a disease characterized by:

- Low bone mass
- Structural deterioration of bone tissue
- Bone fragility and an increased susceptibility to fractures, especially of the hip, spine and wrist, although any bone can be affected

Bone is living, growing tissue that changes throughout the lifespan.

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Osteoporosis Facts

10 million Americans are estimated to have osteoporosis, of which 8 million are women and 2 million are men.

34 million Americans are estimated to have low bone mass, placing them at increased risk for osteoporosis.

One in 2 women and 1 in four men over the age of 50 will have an osteoporosis-related fracture in her/his remaining lifetime.

Risk has been reported in all ethnic backgrounds.

Though associated with advanced age, can occur at any age.

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Categories of Osteoporosis

Bone loss is measured in relationship to the normal bone mass of a young adult and is called a T-score.

- T–score -1 to -2.5 or 10-25% of normal bone loss is considered low bone mass or osteopenia
- T-score >2.5 or more than 25% - 30% is considered osteoporosis

Specialized tests called bone density tests can measure bone density in various sites of the body.

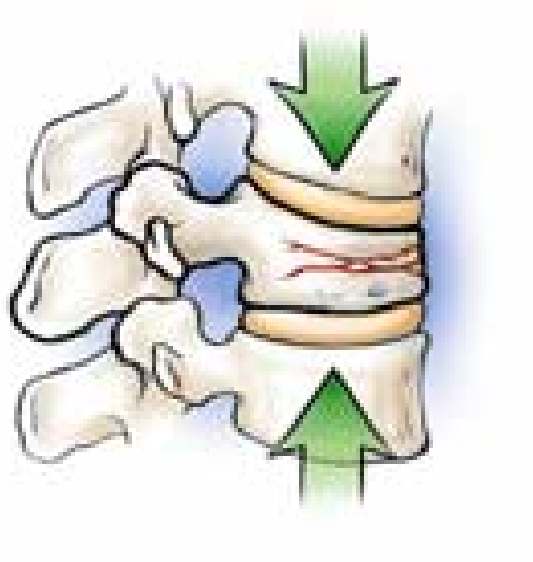
Bone density tests can

- Detect osteoporosis before a fracture occurs
- Predict your chances of fracturing in the future
- Can determine the rate of bone loss and/or monitor the effects of treatment.

Symptoms

Symptoms

- Osteoporosis is often called the “silent disease” as bone loss occurs without symptoms.
- Bones may become so weak that a sudden strain, bump or fall causes a fracture or a vertebrae to collapse.
- Collapsed vertebrae may initially be felt or seen in the form of severe back pain, loss of height or spinal deformities such as kyphosis or stooped posture.



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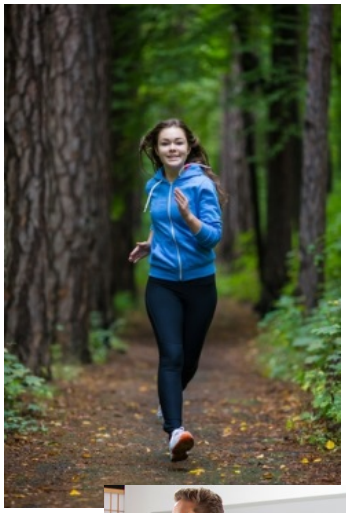
Prevention of Osteoporosis

Women acquire 98 percent of skeletal mass by about age 20.

Building strong bones during childhood and adolescence can be the best defense against developing osteoporosis later.

Four steps to optimize bone health include:

- Balanced diet rich in calcium and vitamin D
- Weight-bearing exercise
- A healthy lifestyle with no smoking or excessive alcohol intake
- Bone density testing and medication when appropriate.



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Wolff's Law

Bones become stronger in response to increased stress. In order to continue to build bone the stress placed on it must be greater then the stress to which it has become accustomed.

In order to build bone you need to challenge the client to keep working harder or to place different kinds of stress on the bones in order to make them respond.

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Exercise Considerations

Weight bearing exercise and weight training have been studied in relationship to osteoporosis and have been shown to be helpful

Pilates has not been directly shown to help and many traditional Pilates exercises are contraindicated for clients with osteoporosis.

Exercise programs for osteoporosis should be designed to:

- Build bone mass
- Improve posture and balance
- Be progressive or changing in order to keep bones responding
- Improve spinal extension

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Contraindications and Precautions

Movements shown to increase risk of fracture, particularly to the spine include

- Spinal Flexion - Especially with resistance as in Hundreds and abdominal curls
- Spinal Rotation – Especially when combined with spinal flexion as in oblique abdominal exercises

Precautions when working with clients with osteoporosis

- Avoid loaded flexion of the spine i.e. abdominal curls, all rolling exercises, all rolling up exercises
- Use a neutral spine position in Bridging
- Be careful with rotation as in Saw and Spine Twist

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Mat and Reformer Exercises to Avoid

Mat

- Abdominals
  - Hundreds
  - Roll Up
  - Neck Pull
  - Series of 5 – Single Leg Stretch, Double Leg Stretch, Single Straight Leg Stretch, Double Straight Leg Stretch, Criss Cross
  - Teaser
- Rolling Exercises
  - Rolling Like a Ball
  - Open Leg Rocker
  - Seal
- Inversions
  - Roll Over
  - Jackknife
  - Corkscrew

Reformer

- Abdominals
  - Hundreds
  - Coordination
  - Roll Downs
  - Short Box Abdominals
  - Teaser
  - Back Stroke
- Spinal Exercises
  - Short Spine Stretch
  - Long Spine Stretch
  - Jackknife
  - Corkscrew

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Reformer Exercises to Emphasize

Spinal Extension

- Swan on the box
- Pulling Straps
- Breast Stroke

Weight Bearing

- All Fours Abdominals
- Long Stretch series
- Knee Stretch

Hip Joint Stimulation

- Feet in Straps
- Standing Leg Work
- Knee Stretch

Moderate Impact loading: In order to increase bone mass, exercise needs to be moderately strenuous.

Keep progressing the resistance you use with each exercise to maintain a moderate level of effort with your client.

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Reformer Program for Osteoporosis

Footwork	• Parallel, external and internal rotation • Single leg and single leg progressions • Ankle work
Supine Arm work	• All directions
Feet in Straps	• All positions • Parallel, external and internal rotation
All Fours Abdominals	• Facing front • Facing back

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Reformer 1

Reformer Program for Osteoporosis

Knee Stretch (flat back only)	• Single leg • Single leg with balance • Double leg
Arm work	• Seated and kneeling facing back • Seated and kneeling facing front
Long Stretch	• Add push ups • Add thoracic extension (if appropriate)
Standing leg work	• Abduction • Adduction

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Additional Exercise Recommendations

Muscle Group Specific Training

- Target spinal extensors
- Train pelvic and scapular stabilizers
- Focus on upper and lower limb training while keeping spine neutral.

Aerobic Activity

- Encourage clients to walk, use low impact aerobic machines, swim or other activities that encourage increased aerobic capacity and overall physical fitness.

Balance and Coordination Training

- To train the nervous system and the muscular system to react appropriately to balance challenges it is important to add safe balance exercises such as
  - Standing on one leg
  - Moving on unstable surfaces (spot the client as needed, add when appropriate)

Flexibility Exercises

- Maintain flexibility in the torso, shoulder girdle and hips in order to help the client to maintain good posture.

Pilates and Pregnancy

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Guidelines for Exercise during Pregnancy

Exercising during pregnancy can be beneficial to both the mother and the baby if common safety guidelines are followed.

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Benefits of Exercise during Pregnancy

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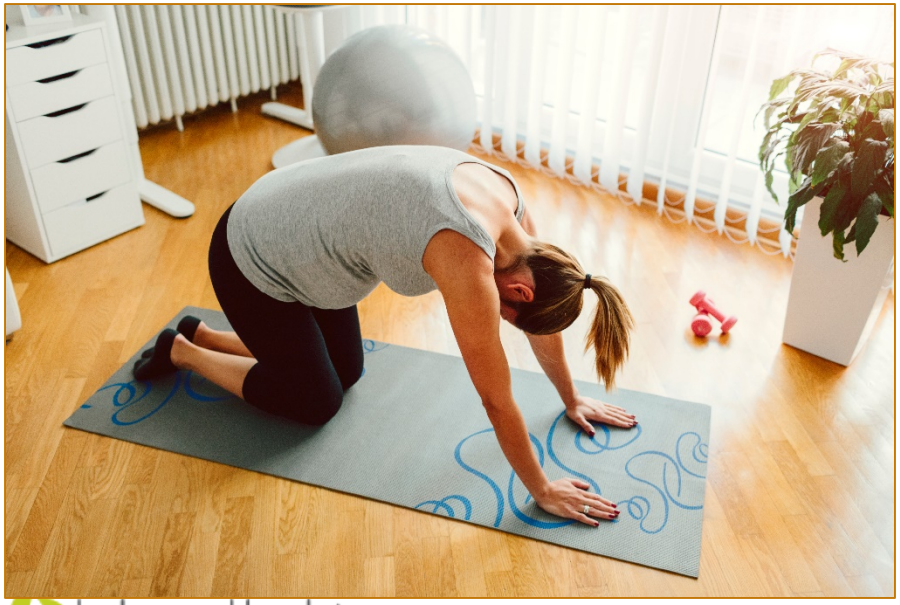
Low Risk Pregnancy

Low Risk Pregnancy

- Under 35
- Previous normal pregnancy and delivery
- No known risks



Exercise Considerations

- Follow the normal guidelines for each trimester.
- Pay attention to changes in energy level. Pay attention to changes in flexibility and balance.
- Focus on maintaining trunk integration, lumbopelvic stability and overall strength with an emphasis on upper body strength.

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High Risk Pregnancy

High Risk Pregnancy

- First pregnancy over age 35
- Previous issues with pregnancy and delivery
- Medically identified risks – preeclampsia, gestational diabetes, cervical insufficiency
- In-vitro or other assisted fertility treatments.

Exercise Considerations

- Minimize or eliminate exercise during the first trimester (first 12 weeks).
- If client has any unusual symptoms, refer them to their MD or other medical practitioner.
- Focus on maintaining trunk integration, lumbopelvic stability and overall strength with an emphasis on upper body strength.

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Exercise during Pregnancy

Changes during pregnancy

- Hypermobility - Pregnancy hormones make the joints looser. Be cautious with high impact, bouncy or contact sports where the joints may be unstable.
- Balance changes - As the body changes shape, balance can unexpectedly change. Be cautious with balance challenges.
- Breathing difficulties – As the uterus grows and the body demands more oxygen, shortness of breath can occur. Take it easy until the body adjusts.

Precautions during pregnancy

- Drink plenty of water – Dehydration can be especially dangerous during pregnancy.
- Wear a supportive sports bra - As the breasts enlarge, support is necessary to keep them comfortable.
- Avoid becoming overheated.

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Stages of Pregnancy

1st Trimester (0 – 12 weeks)

- All exercises are generally possible during this time.
- Pay attention to the woman's energy level and any morning sickness symptoms.
- Pay attention to changes in flexibility and balance.

1st Trimester exercises to focus on

- Trunk integration
- Lumbopelvic stability
- Arm and upper back strength.
- Flexibility of the chest, lower back and anterior hip.
- Decrease or eliminate inversion exercises.

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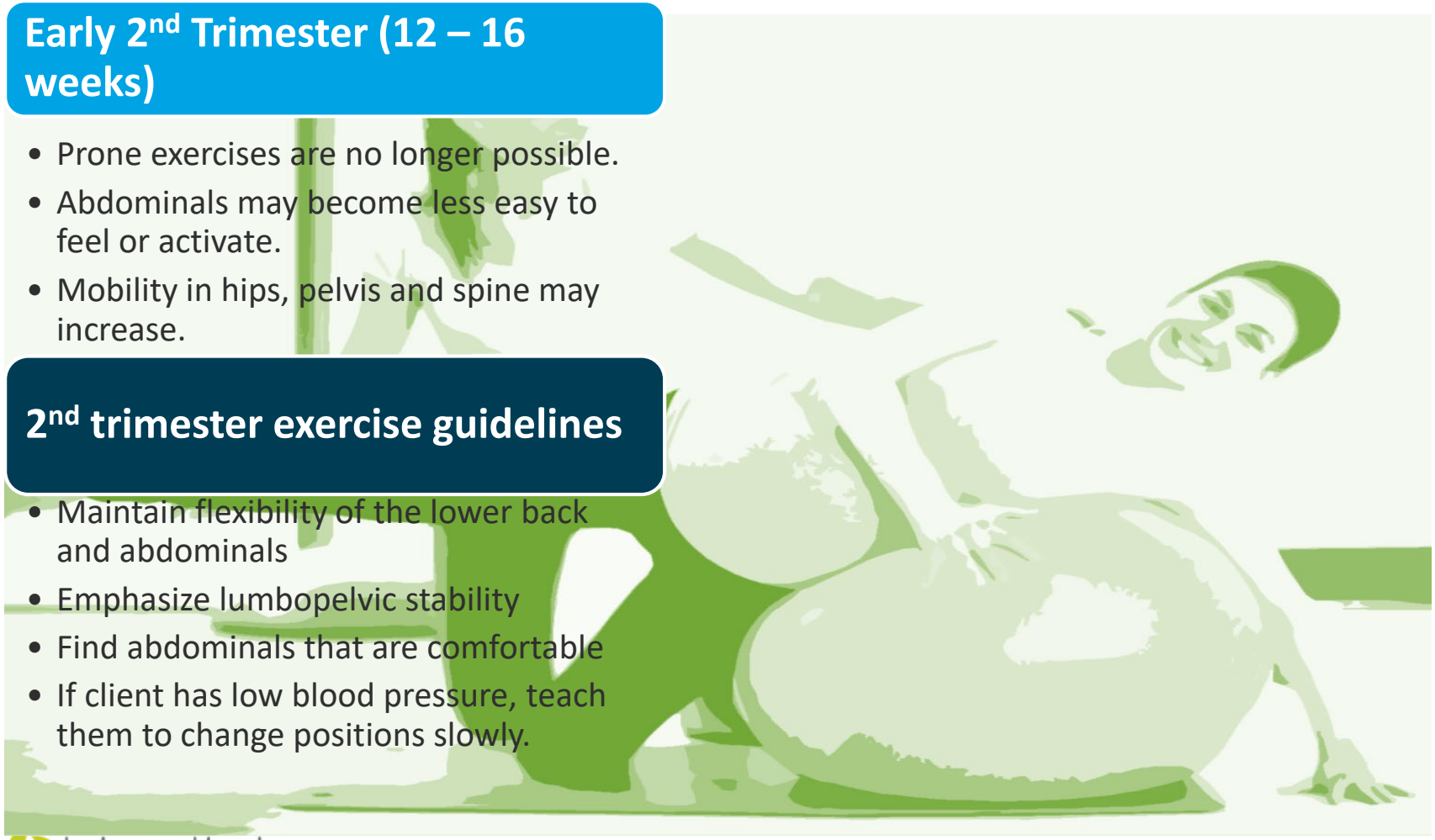
Stages of Pregnancy

Early 2nd Trimester (12 – 16 weeks)

- Prone exercises are no longer possible.
- Abdominals may become less easy to feel or activate.
- Mobility in hips, pelvis and spine may increase.

2nd trimester exercise guidelines

- Maintain flexibility of the lower back and abdominals
- Emphasize lumbopelvic stability
- Find abdominals that are comfortable
- If client has low blood pressure, teach them to change positions slowly.



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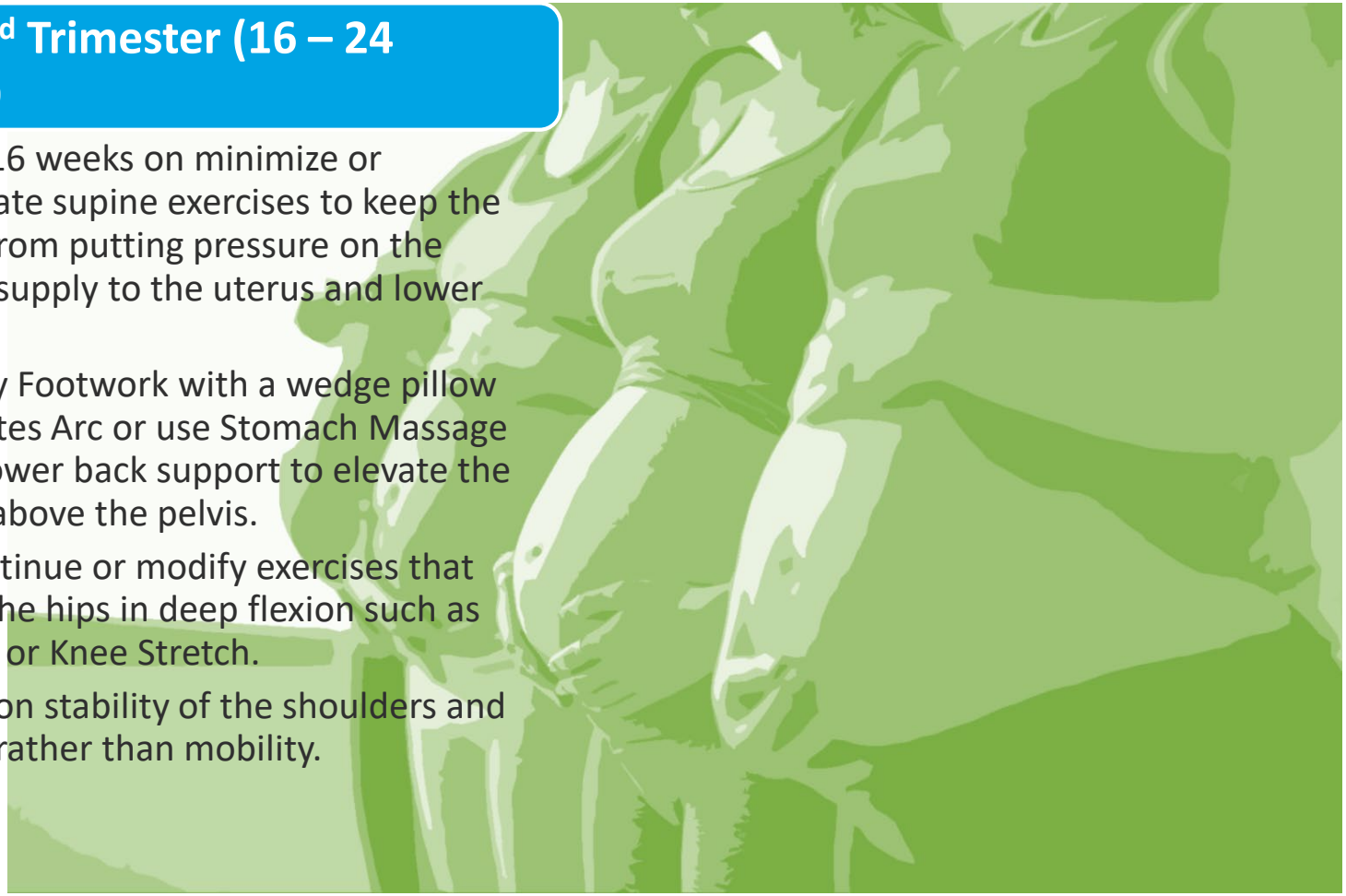
Stages of Pregnancy

Late 2nd Trimester (16 – 24 weeks)

- From 16 weeks on minimize or eliminate supine exercises to keep the fetus from putting pressure on the blood supply to the uterus and lower body.
- Modify Footwork with a wedge pillow or Pilates Arc or use Stomach Massage with lower back support to elevate the heart above the pelvis.
- Discontinue or modify exercises that work the hips in deep flexion such as Teaser or Knee Stretch.
- Focus on stability of the shoulders and pelvis rather than mobility.



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Stages of Pregnancy

3rd Trimester (24 weeks until delivery) exercise guidelines

- Use a wide leg position on footwork.
- Emphasize the limbs rather than the core.
- Continue to focus on shoulder and lumbopelvic stability.
  - Leg and hip strength
  - Light, neutral trunk integration exercises
  - Upper body exercises for lifting and carrying.
- Caution with resisted adductor work to minimize pressure on the pubic symphysis especially if the client is hypermobile.

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Reformer 1

Stages of Pregnancy

Post natal

- If delivery was vaginal, begin basic trunk integration, core and lumbopelvic stabilization exercises as soon as possible.
- If delivery was by C section, do only light trunk integration, core stabilization and lumbopelvic stability exercises until cleared by the doctor. This usually takes 6 to 8 weeks.
- Focus on a full body workout to restore tone in the abdomen, stability of the pelvis and strength in the upper body.

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Upper Body Strength and Balance

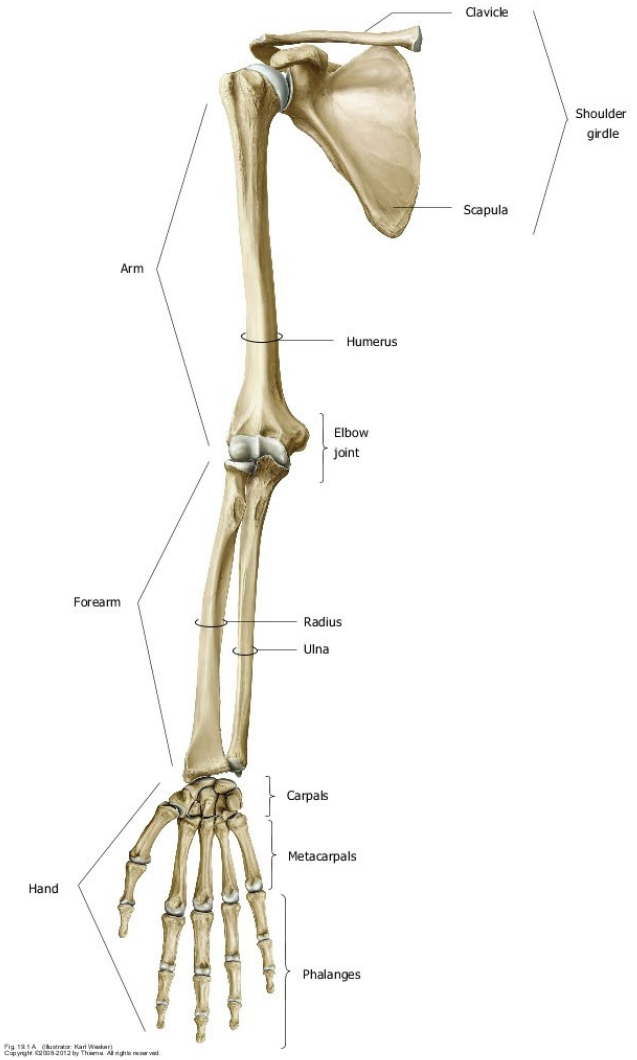
The combination of very mobile joints and complex muscle actions can make learning to effectively train this area challenging for the novice or even the experienced teacher.

Movement Principles

The Shoulder Joints

All of these joints need to move in harmony to create healthy shoulders.

- Scapulothoracic
- Glenohumeral
- Sternoclavicular
- Acromioclavicular



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Movement Principles

Muscles of the Shoulder

The muscles of the shoulder play three key roles:

- Glenohumeral stability and mobility
- Scapular stability and mobility
- Humeral mobility

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Movement Principles

Training the Upper Body

1) Create stability, endurance and balance of the rotator cuff.

2) Optimize the mobility and stability of the scapula.

These 4 steps provide a framework for training the upper body

3) Perform exercises to address the majority of the functional movement patterns of the upper body.

4) Integrate upper body movements into the thorax and lower body.

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Movement Principles

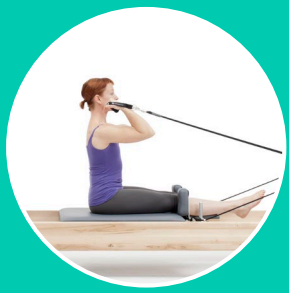
Training the Upper Body

Functional Movement Patterns include:

Pulling

Pushing

Straight Arm Raises



Lifting

Reaching

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Movement Principles

Training the Upper Body

Rotator cuff exercises

- Medial rotation
- Lateral rotation

Scapular Stability and Mobility exercises

- All Fours
- Long Stretch/Plank
- Supine Arms
- Rowing

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Training the Upper Body

Functional Movements

- Pulling
- Pushing
- Pushing up
- Pulling down

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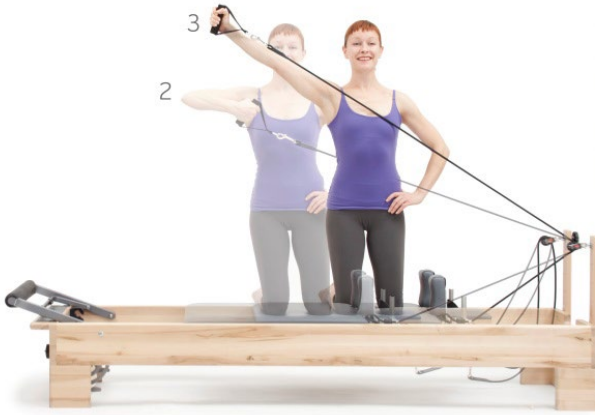
Training the Upper Body

Integrating the arms with the rest of the body

- Pulling across
- Pulling with rotation
- Punching
- Throwing



Movement Principles

Training the Upper Body

Glenohumeral stability	• Rotator cuff exercises
Scapular stability and mobility	• Pinwheel and planks
Posterior shoulder	• Rows, shoulder extension, triceps kick back
Anterior shoulder	• Chest press, biceps curls
Functional movement patterns	• Pulling, pushing, throwing

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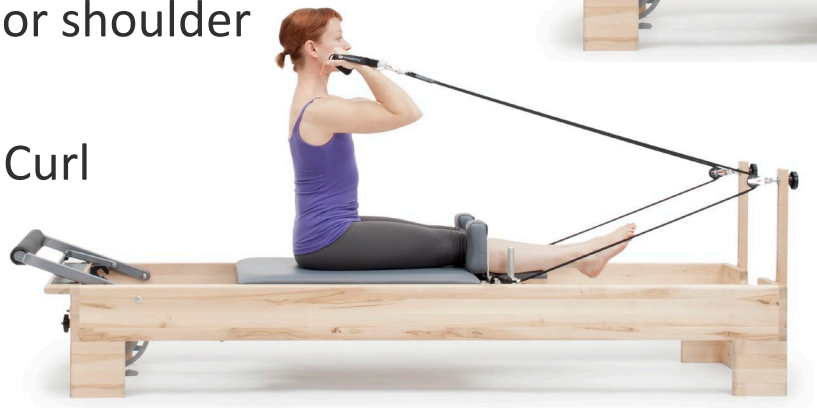
Reformer 1 Exercises

Arm Work Facing Straps

Focus: Functional Arm Strength - Pulling, Lifting, Trunk Integration

Variations

- Lateral rotation
- Medial rotation
- Rows
- Posterior shoulder
- Twist
- Biceps Curl



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Reformer 1 Exercises

Arm Work Facing Footbar

Focus: Pushing - Trunk Integration

Variations

- Serve a Tray
- Hug a Tree
- Salutes
- Punching

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Movement Principles

Movements of the Scapula

Elevation

Protraction

Upward Rotation

Depression

Retraction

Downward Rotation

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Movement Principles

Movements of the Glenohumeral Joint

Flexion

Extension

Abduction

Adduction

Medial Rotation

Lateral Rotation

Horizontal Adduction

Horizontal Abduction

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Movement Principles

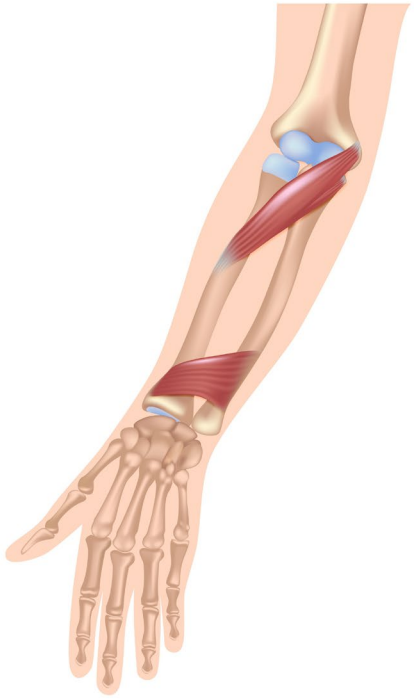
Movements of the Elbow and Forearm

Elbow flexion

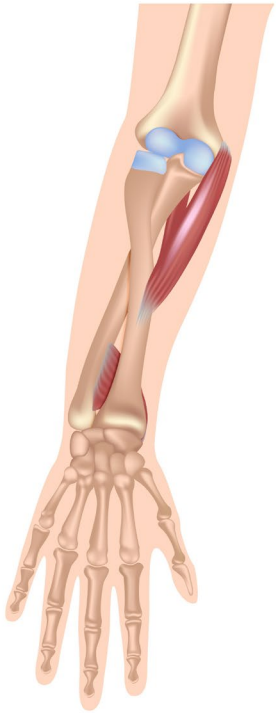
Elbow extension

Right arm

Supination



Pronation



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Movement Principles

Movements of the Wrist

Wrist extension

Ulnar deviation or adduction

Wrist flexion

Radial deviation or abduction

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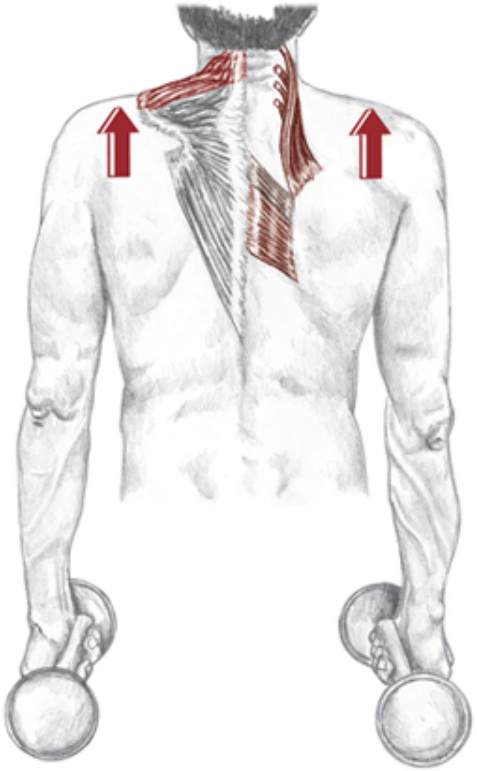
Scapula

(scapulothoracic joint)

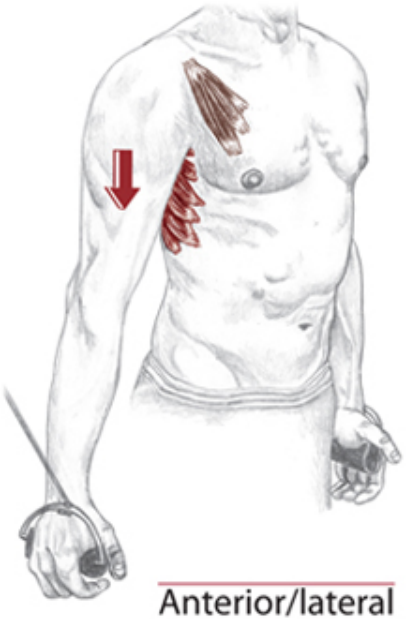
Reformer exercises for Elevation: Overhead Press

Reformer exercises for Depression: Supine arm work, Pulling straps, Scapula glides



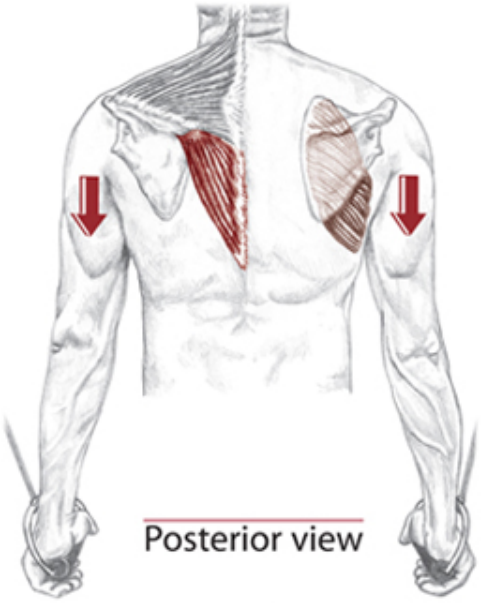
Posterior view

Elevation
Trapezius
(upper fibers)
Rhomboid major
Rhomboid minor
Levator scapula



Anterior/lateral view

Depression
Trapezius (lower fibers)
Serratus anterior
(with the origin fixed)
Pectoralis minor



Posterior view

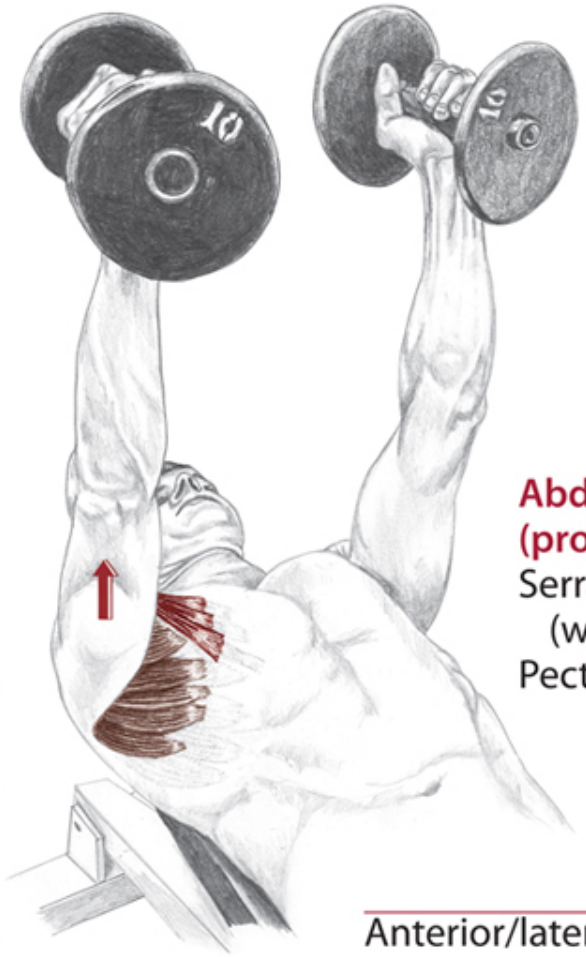
TGB, p.73

Scapula

(scapulothoracic joint)

Reformer exercises for Abduction/Protraction: Serve a Tray, Hug a Tree

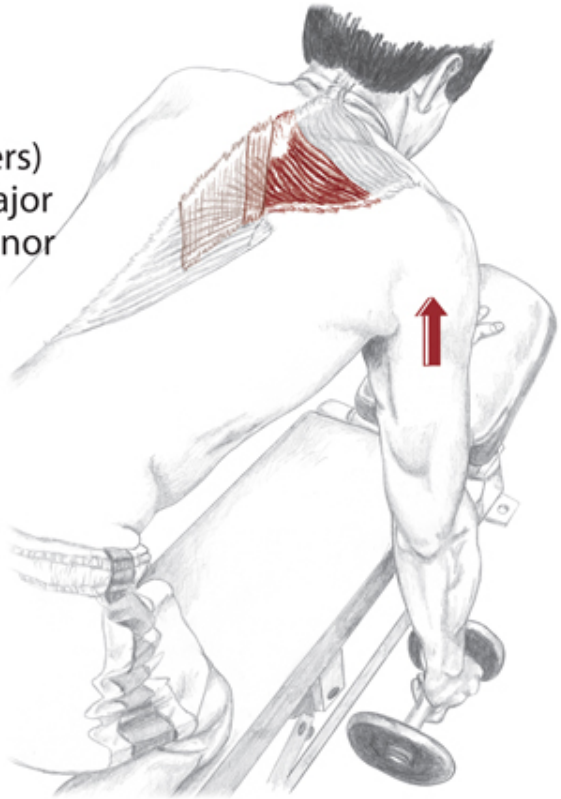
Reformer exercises for Adduction/Retraction: Rows



Abduction (protraction)
Serratus anterior
(with the origin fixed)
Pectoralis minor

Anterior/lateral view

Adduction (retraction)
Trapezius
(middle fibers)
Rhomboid major
Rhomboid minor



Posterior/lateral view

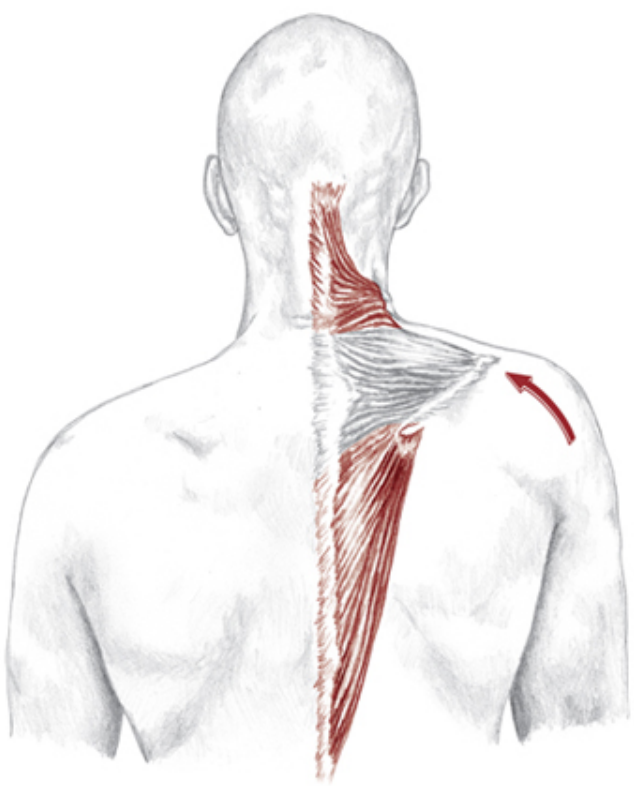
TGB, p.74

Scapula

(scapulothoracic joint)

Reformer exercises for Upward Rotation: Pulling straps (T) eccentric phase, Supine arms eccentric phase

Reformer exercises for Downward Rotation: Pulling straps (T) concentric phase



Upward Rotation
Trapezius
(upper and lower fibers)

Posterior views

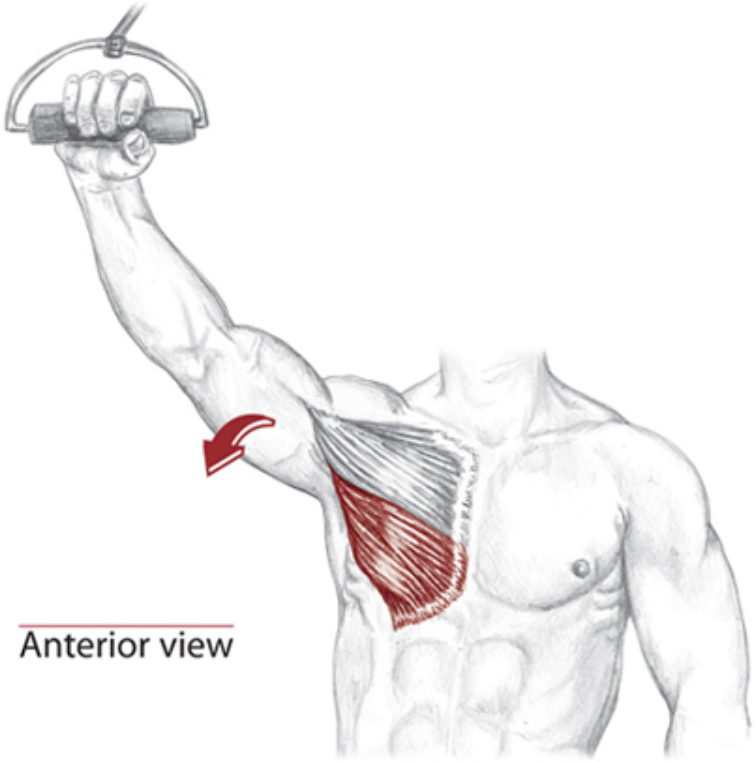
Downward Rotation
Rhomboid major
Rhomboid minor
Levator scapula

TGB, p.74

Shoulder

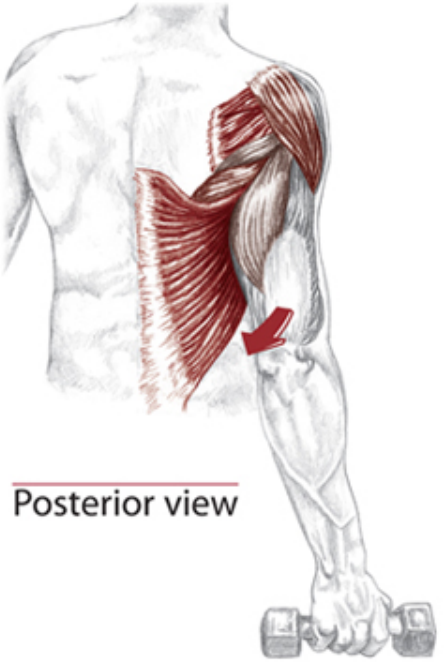
(glenohumeral joint)

Reformer exercises for Extension: Pulling straps, Chest expansion, Twist facing back, Supine arm work



Anterior view

Extension
Deltoid
(posterior fibers)
Latissimus dorsi
Teres major
Infraspinatus
Teres minor
Pectoralis major
(lower fibers)
Triceps brachii
(long head)



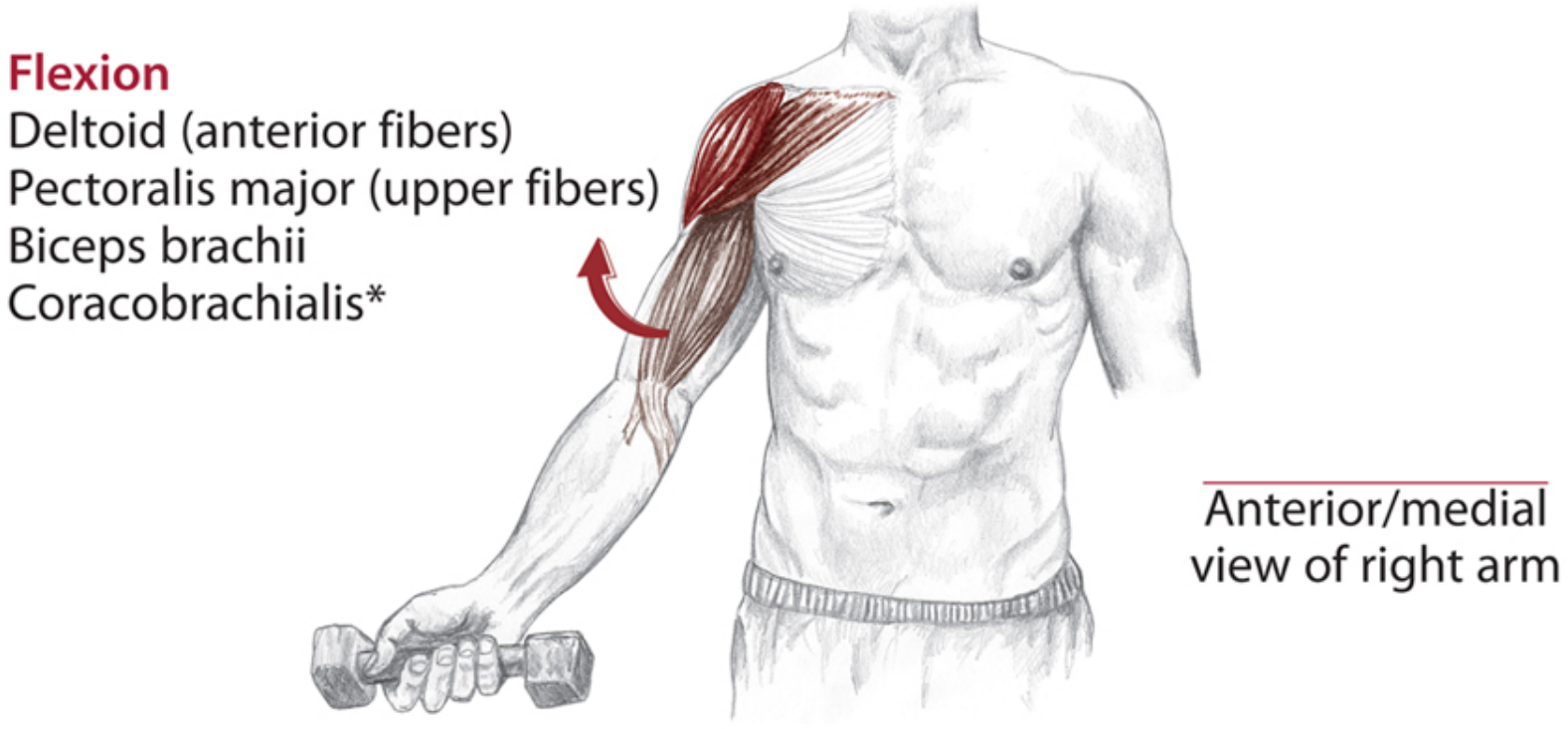
Posterior view

Synergists – Muscles Working Together

Shoulder

(glenohumeral joint)

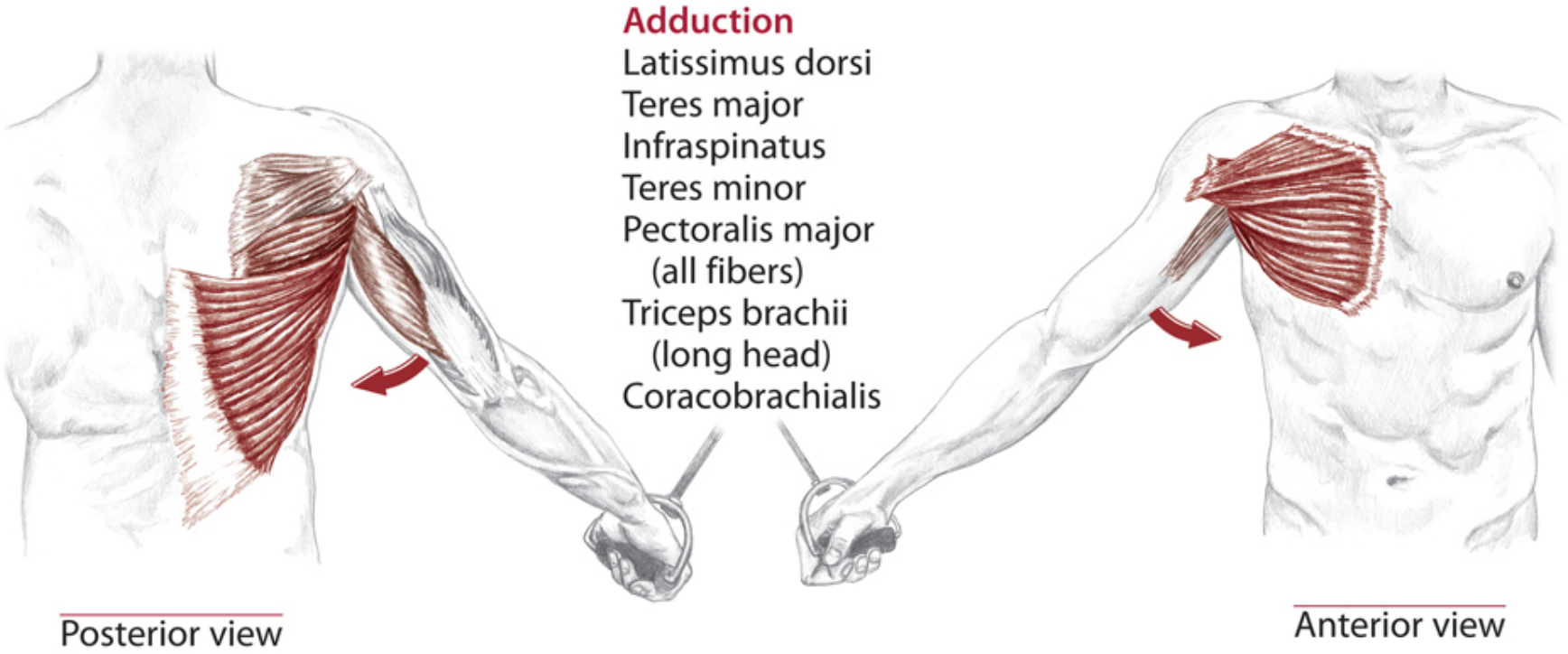
Reformer exercises for Flexion: Serve a Tray, Breaststroke (modified), Kneeling Arm Circles



Shoulder

(glenohumeral joint)

Reformer exercises for Adduction: Supine arm work: Lat pulls, Pulling straps: in a T

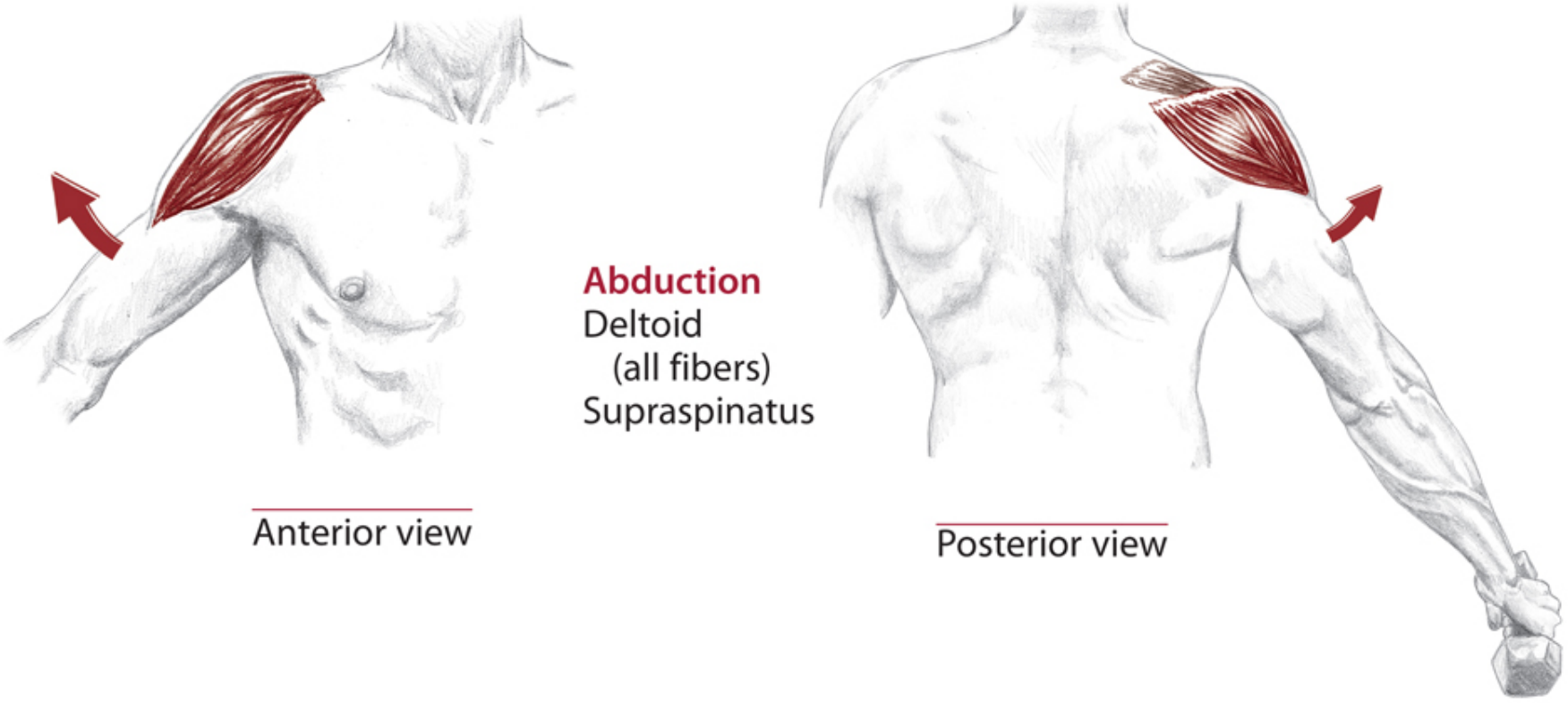


TGB, p.72

Shoulder

(glenohumeral joint)

Reformer exercises for Abduction: Eccentric phase of Lat pulls



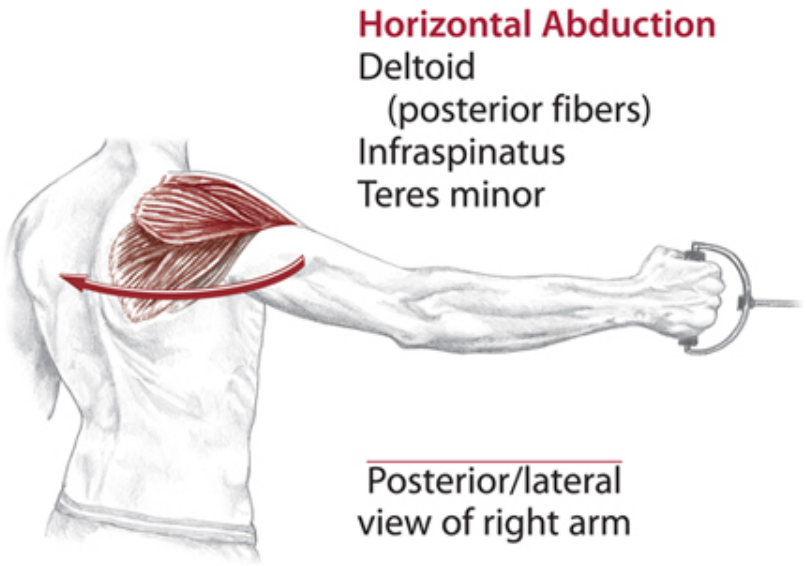
TGB, p.72

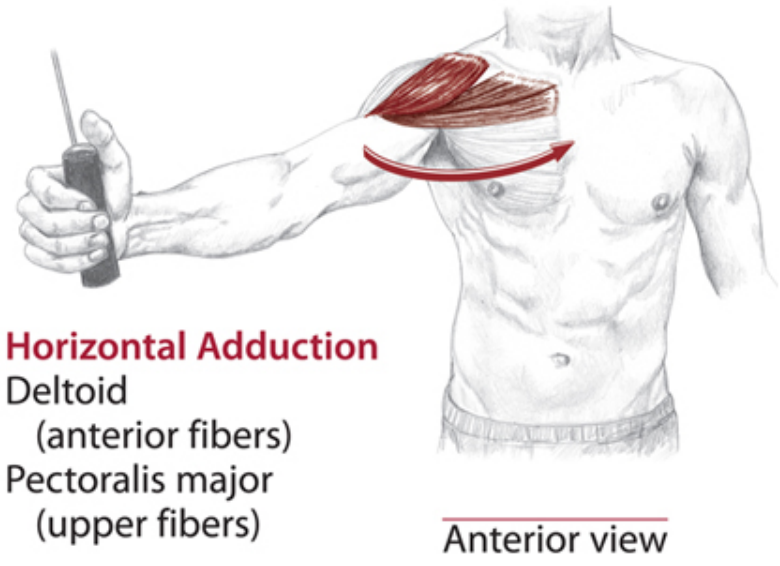
Shoulder

(glenohumeral joint)

Reformer exercises for Horizontal Adduction: Hug a Tree, Kneeling arms: Pull across

Reformer exercises for Horizontal Abduction: Kneeling arms: Draw a Sword

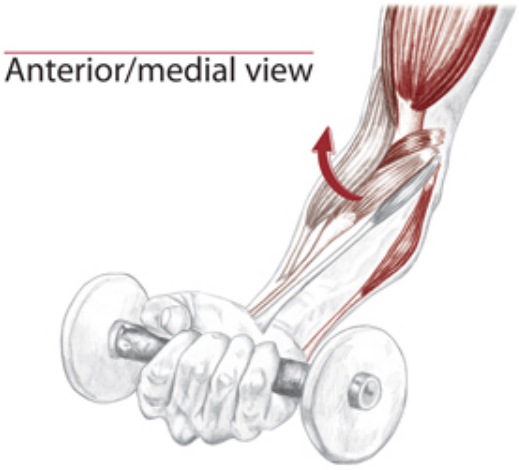




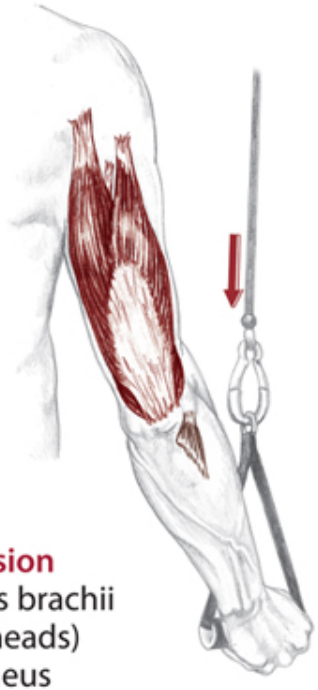
Synergists – Muscles Working Together

Elbow

(humeroulnar and humeroradial joints)



Flexion
Biceps brachii
Brachialis
Brachioradialis
Flexor carpi radialis
Flexor carpi ulnaris (assists)
Palmaris longus
Pronator teres (assists)
Extensor carpi radialis longus (assists)*
Extensor carpi radialis brevis (assists)*



Extension
Triceps brachii (all heads)
Anconeus

Reformer exercises for Elbow Flexion: Biceps Curls, LB Breaststroke

Reformer exercises for Elbow Extension: Salutes, Overhead Press

Forearm

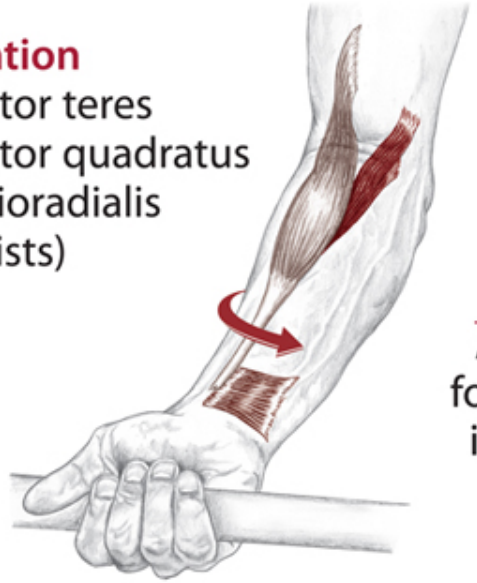
(proximal and distal radioulnar joints)

These actions are frequently imbalanced in terms of both range of motion and strength: To work on them, add pronation, neutral and supination forearm positions to different arm exercises.

Supination
Biceps brachii
Supinator
Brachioradialis
(assists)

Anterior view, forearm rotating into supination

Pronation
Pronator teres
Pronator quadratus
Brachioradialis
(assists)



Anterior view, forearm rotating into pronation

Reformer 1 Workouts

Upper Body Sequence


Supine Arm Work

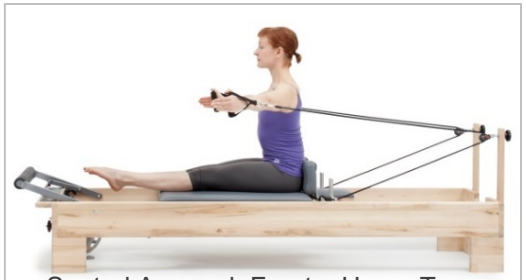

Roll Down

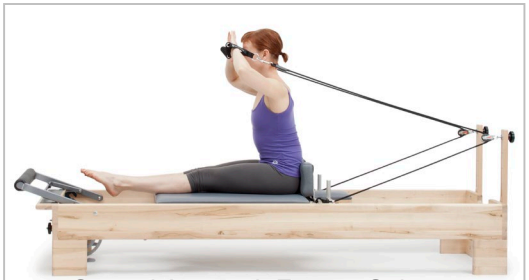

Seated Armwork Back – Lateral Rotation


Seated Armwork Back – Rows


Seated Armwork Back – Triceps Press


Seated Armwork Back – Twist


Seated Armwork Front – Hug a Tree


Seated Armwork Front – Salutes


Seated Armwork Front – Twist/Punching

balanced body

Reformer 1 Exercises

Standing Side Splits

Focus: Hip Abduction and Adduction Strength

Variations

- Legs parallel or turned out
- Knees straight, weight centered
- Knees bent, weight centered
- Knees bent, weight on standing leg

balanced body

Reformer 1 Exercises

Lunge

Focus: Hip Flexor Flexibility

Variations

- Lunge
- Eve's Lunge

balanced body

Reformer 1 Exercises

Side Stretch/Mermaid

Focus: Lateral Spinal Flexion

Variations

- Side bend
- Rotation
- Counter stretch
- Feet on floor
- Hip lift and lower

balanced body

Reformer 1 Exercises

Cleopatra

Focus: Lateral Spinal Flexion

Cleopatra

balanced body

Reformer 1 Workouts

Cool Down

Standing

Lunge

Mermaid

balanced body

Reformer 1 Workouts

Lower Body Sequences

Footwork

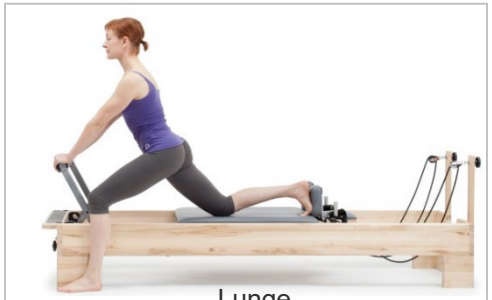
Bridging

Feet in Straps

Knee Stretch Double Leg Flat Back

Knee Stretch Single Leg Flat Back

Standing



Lunge

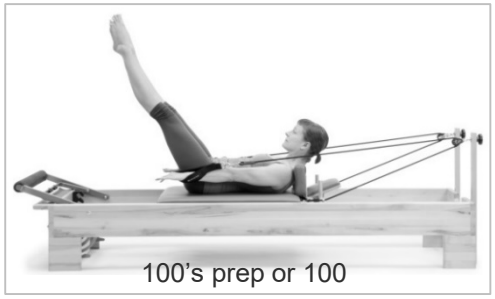
balanced body

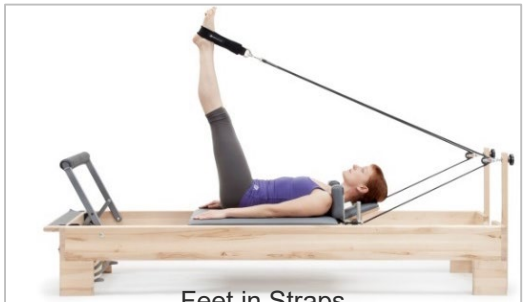
Reformer 1 Workouts

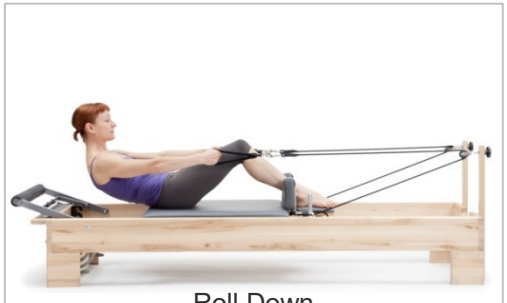
Introductory Session

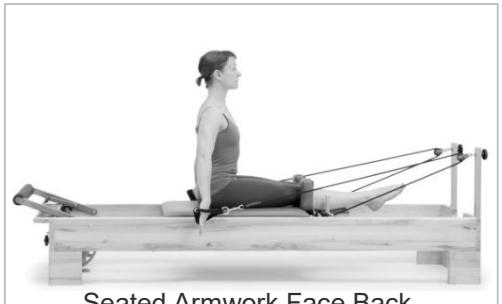

Footwork

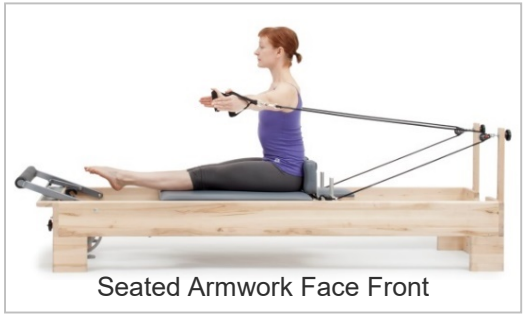

Supine Arm Work

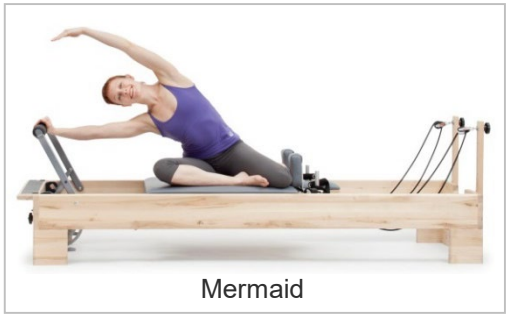

100's prep or 100

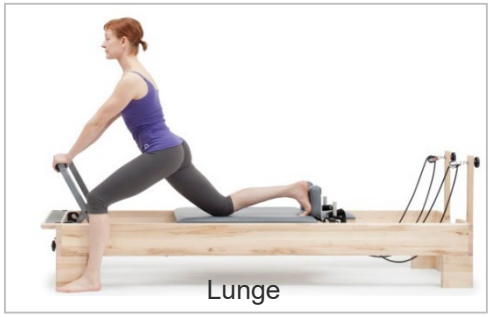

Feet in Straps


Roll Down


Seated Armwork Face Back


Seated Armwork Face Front


Mermaid


Lunge

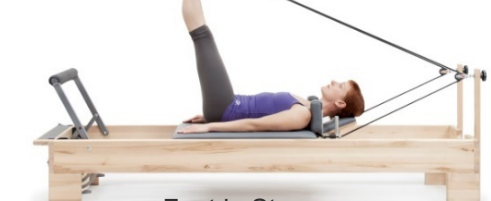
balanced body

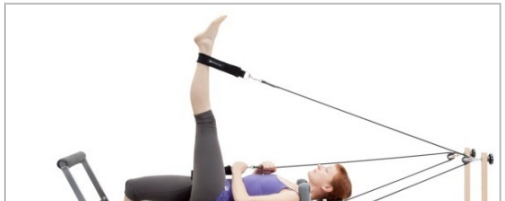
Reformer 1 Workouts

The Basics, part 1


Footwork

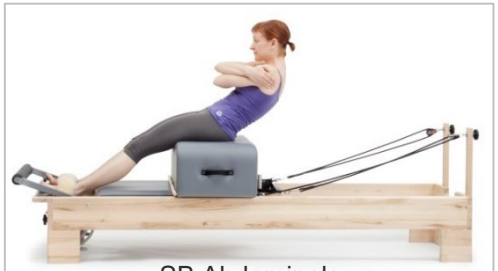

100's prep or 100


Feet in Straps

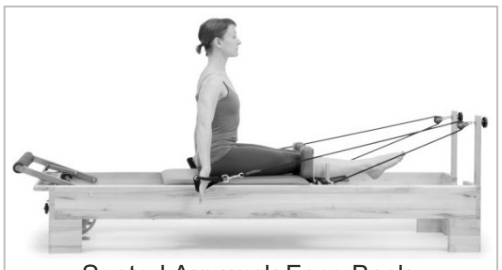

Feet in Straps, Stretches


Supine Arm Work


Roll Down


SB Abdominals


Kneeling Abs Back


Seated Armwork Face Back

balanced body

Reformer 1 Workouts

The Basics, part 2

Seated Armwork Face Front

Bridging

Knee Stretch Single Leg Flat Back

Lunge

Mermaid

balanced body

Reformer 1 Workouts

Full Program 1


Footwork


100's prep or 100


Feet in Straps and Stretches


Supine Arm Work

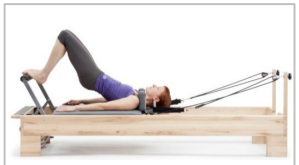

Roll Down


SB Abdominals


Pulling Straps


Knee Stretch 2 Legs, Round


Knee Stretch 2 Legs, Flat


Pelvic Lift


Seated Armwork Face Back


Seated Armwork Face Front


Elephant


Standing


Lunge


Mermaid

balanced body

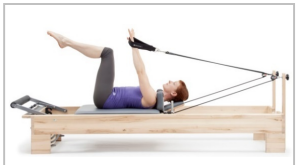
Reformer 1 Workouts

Full Program 2


Footwork


100's prep or 100


Feet in Straps and Stretches


Supine Arm Work


SB Abdominals


Pulling Straps


Knee Stretch 2 Legs, Round


Knee Stretch 2 Legs, Flat


Elephant


Long Stretch


Seated Armwork Face Back


Seated Armwork Face Front


Pelvic Lift


Standing


Lunge

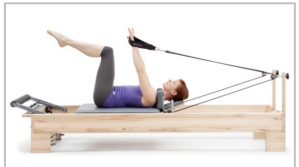

Mermaid

balanced body

Reformer 1 Workouts

Full Program 3


Footwork


Supine Arm Work


100's


Feet Straps & Stretch


SB Abdominals


Pulling Straps


LB Overhead Press


LB Swan


Knee Stretch 2 Legs, Round


Knee Stretch 2 Legs, Flat


Elephant


Long Stretch


Up Stretch


Seated Armwork Face Back


Seated Armwork Face Front


Pelvic Lift


Standing


Lunge

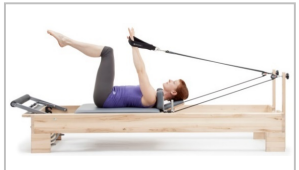

Mermaid

balanced body

Reformer 1 Workouts

More for the Core


Footwork


Supine Arm Work


100's


Feet Straps & Stretch


Kneeling Abs Back


SB Abdominals


Pulling Straps


LB Swan


Knee Stretch 2 Legs, Round

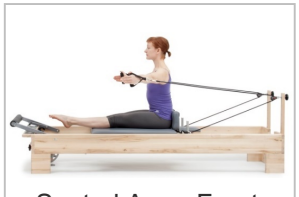

Knee Stretch 2 Legs, Flat

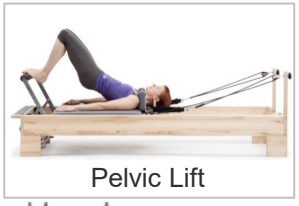

Elephant


Long Stretch


Up Stretch


Seated Arms Back


Seated Arms Front


Pelvic Lift


Standing


Lunge


Mermaid

balanced body

Reformer 1 Workouts

Strong Arms


Footwork


Supine Arm Work


100's


Feet Straps & Stretch


Roll Down + Arms


Kneeling Abs Back


Pulling Straps

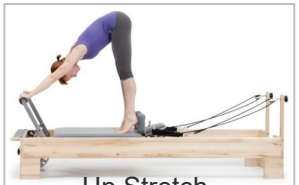

LB Overhead Press


SB Abdominals


Knee Stretch 2 Legs, Round + Flat


Elephant + Walking

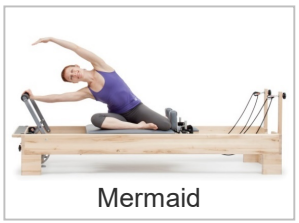

Long Stretch + Push Ups


Up Stretch


Seated Arms Back


Seated Arms Front


Lunge


Mermaid

balanced body

Reformer 1 Workouts

Mostly Legs

Footwork

Pelvic Lift + Pilates V + Single Leg

100 + Leg raise and lower

Feet in Straps and Stretches

SB Abdominals

LB Swan

Pulling Straps

Knee Stretch 2 Legs, Round + Flat

Elephant + Walking

Long Stretch + Push Ups

Kneeling Arms Back

Kneeling Arms Front

Standing

Lunge

Mermaid

balanced body

Balanced Body Pilates Instructor Training

Requirements for Mat and Reformer

Prerequisites:

20 Reformer classes required - 1 year teaching experience recommended

↓

Complete Anatomy and Movement Principles

↓

Complete Mat Course Work

Mat 1 Mat 2 Mat 3

↓

Complete Reformer Course Work

Reformer 1 Reformer 2 Reformer 3

↓

Complete 20 Mat and 30 Reformer personal sessions, 45 observation hours and 125 student teaching hours

↓

Take the final exam

balanced body

Balanced Body Pilates Instructor Training

Requirements for Reformer

Prerequisites:

20 Reformer classes required - 1 year teaching experience recommended

Complete Anatomy and Movement Principles

Complete Reformer Course Work

Reformer 1 Reformer 2 Reformer 3

Complete 30 Reformer personal sessions, 30 observation hours and 90 student teaching hours

Take the final exam

balanced body

Reformer 1 Complete!

Your next step is to practice the exercises, practice teaching and gain confidence in helping your friends and clients achieve greater health and wellbeing.

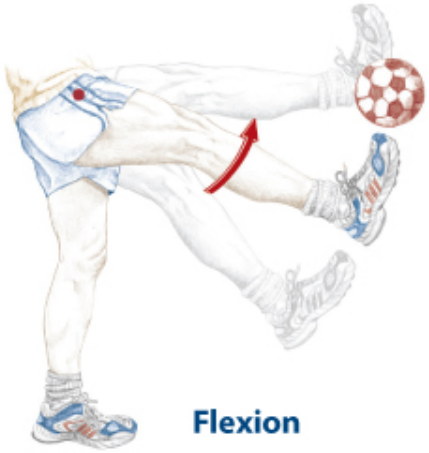
We look forward to seeing you in Reformer 2

Thanks for joining the Balanced Body Pilates Instructor Training Program!

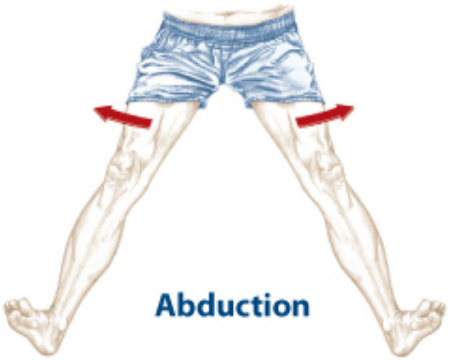
balanced body

Hip

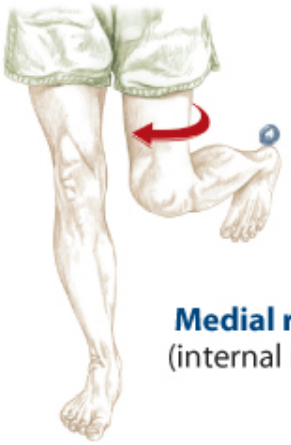
(coxal joint)



Flexion



Abduction



Medial rotation
(internal rotation)

Extension

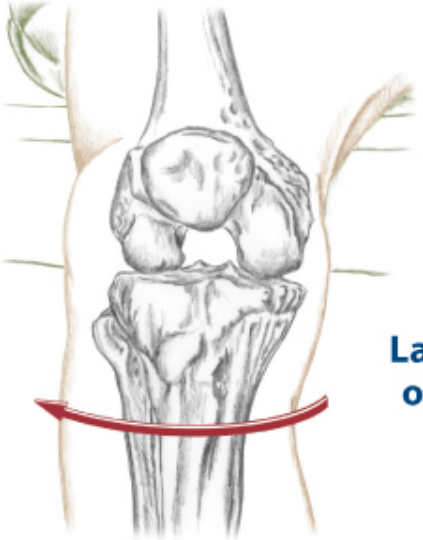
Adduction

Lateral rotation
(external rotation)

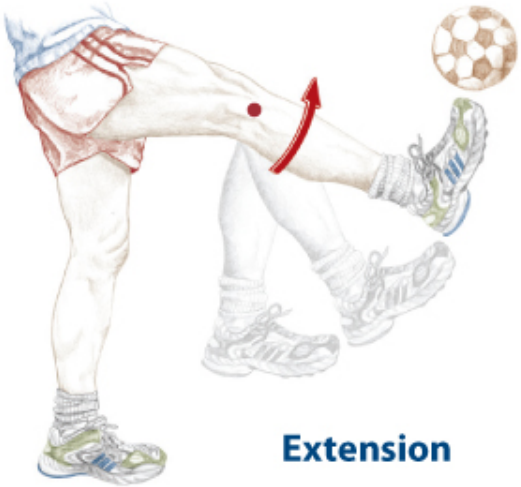
Knee

(tibiofemoral joint)

Flexion



Lateral rotation of flexed knee (right knee)

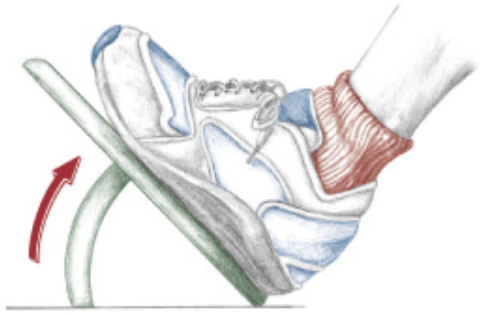


Extension

Medial rotation of flexed knee (right knee)

Ankle, Foot and Toes

(talocrural, talotarsal, midtarsal, tarsometatarsal, metatarsophalangeal and interphalangeal joints)



Dorsiflexion of ankle

Inversion of foot

Flexion of toes

Plantar flexion of ankle

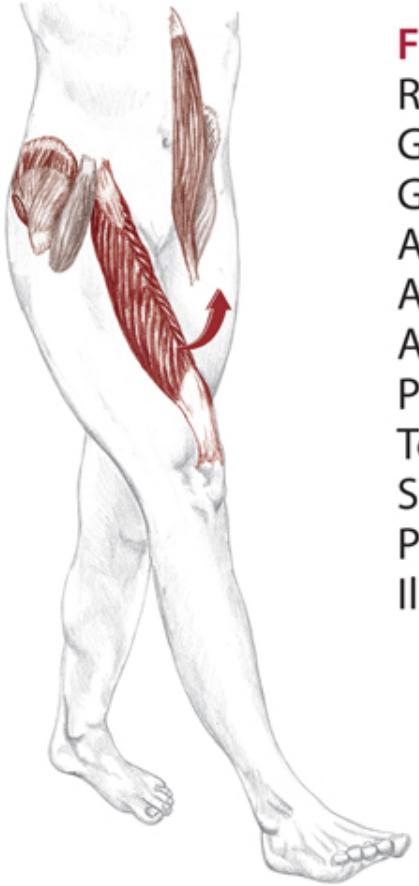
Eversion of foot

Extension of toes

Synergists – Muscles Working Together

Coxal

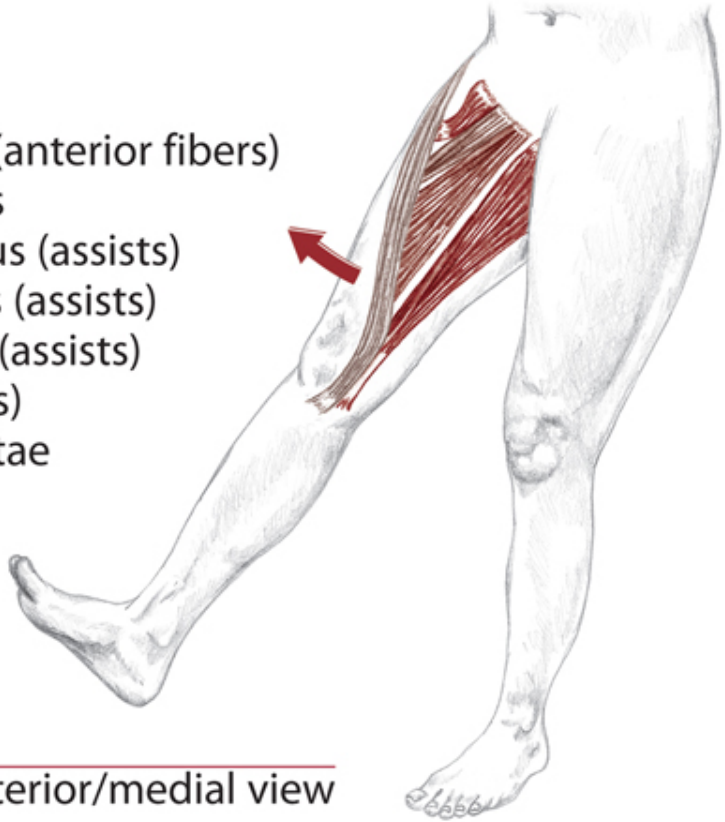
(hip joint)



Anterior/lateral view, psoas major and iliacus shown on opposite side

Flexion

Rectus femoris
Gluteus medius (anterior fibers)
Gluteus minimus
Adductor magnus (assists)
Adductor longus (assists)
Adductor brevis (assists)
Pectineus (assists)
Tensor fasciae latae
Sartorius
Psoas major
Iliacus



Anterior/medial view

Reformer exercises for Hip Flexion: Feet in Straps, Kneeling Abdominals Back, 100, Coordination,

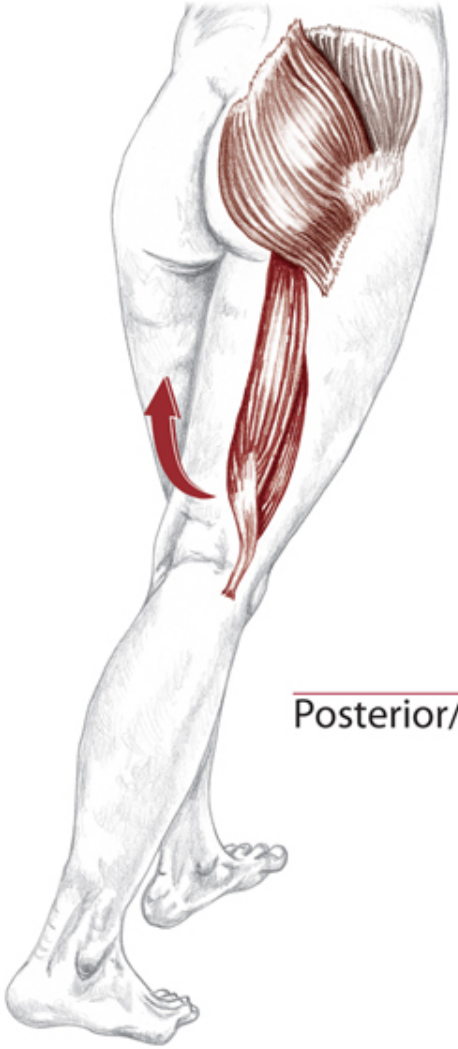
Coxal

(hip joint)

Posterior/medial view

Extension

Biceps femoris
Semitendinosus
Semimembranosus
Gluteus maximus
(all fibers)
Gluteus medius
(posterior fibers)
Adductor magnus
(posterior fibers)



Posterior/lateral view

Reformer exercises for Hip Extension: Footwork, Bridging, Feet in Straps, Knee Stretch

Coxal

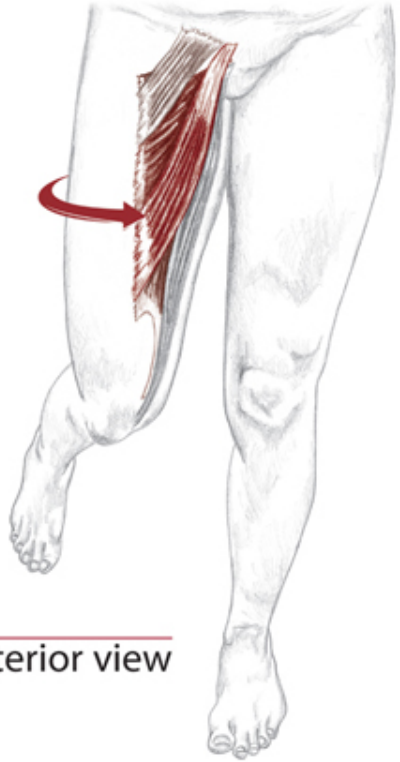
(hip joint)

Medial Rotation
(internal rotation)

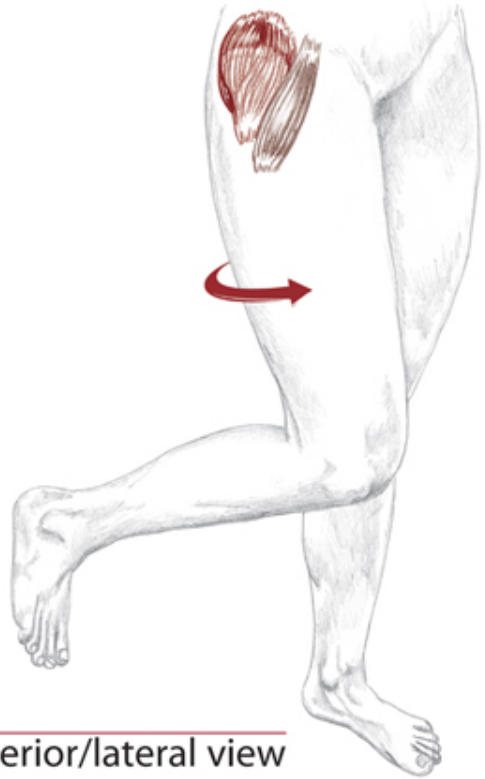
Semitendinosus
Semimembranosus
Gluteus medius
(anterior fibers)
Gluteus minimus

Adductor magnus
Adductor longus
Adductor brevis
Gracilis
Pectineus
Tensor fasciae latae

Posterior/medial view



Anterior view

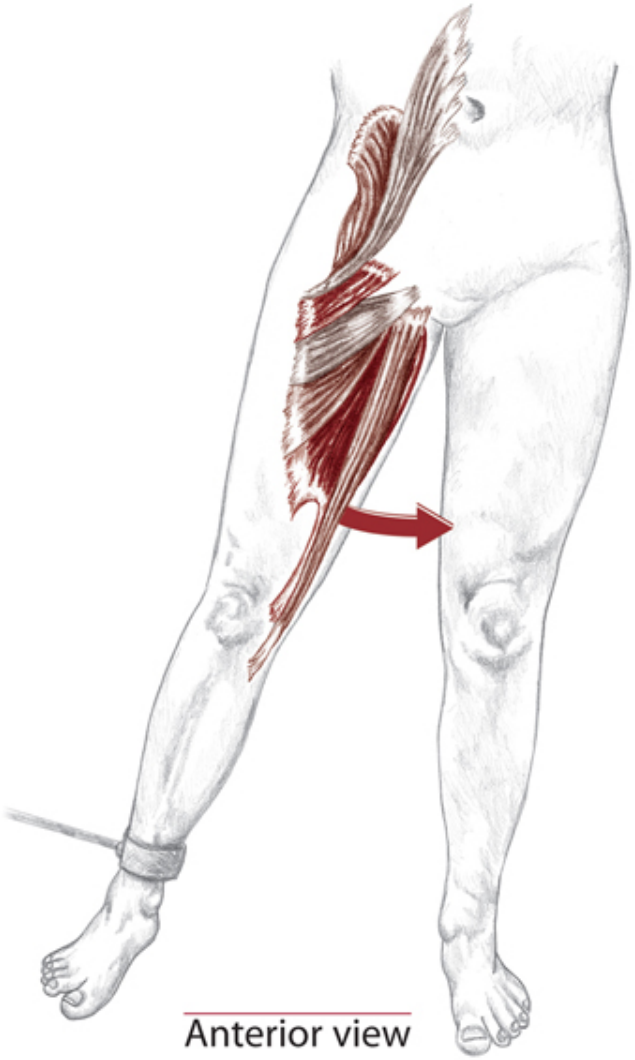


Anterior/lateral view

Reformer exercises for Medial Rotation: Footwork, Feet in Straps, Standing

Coxal

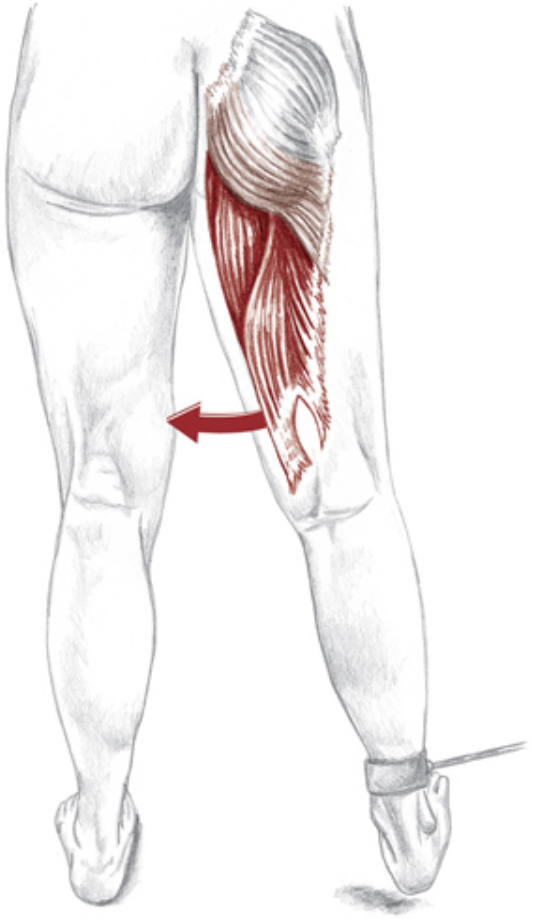
(hip joint)



Anterior view

Adduction

Adductor magnus
Adductor longus
Adductor brevis
Pectineus
Gracilis
Psoas major
Iliacus
Gluteus maximus
(lower fibers)

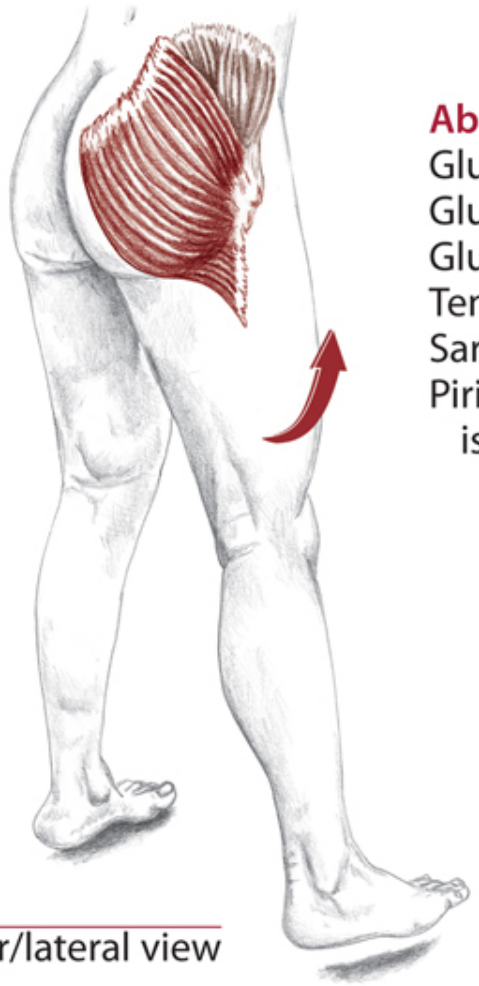


Posterior view

Reformer exercises for Hip Adduction: Footwork, Feet in Straps, Standing

Coxal

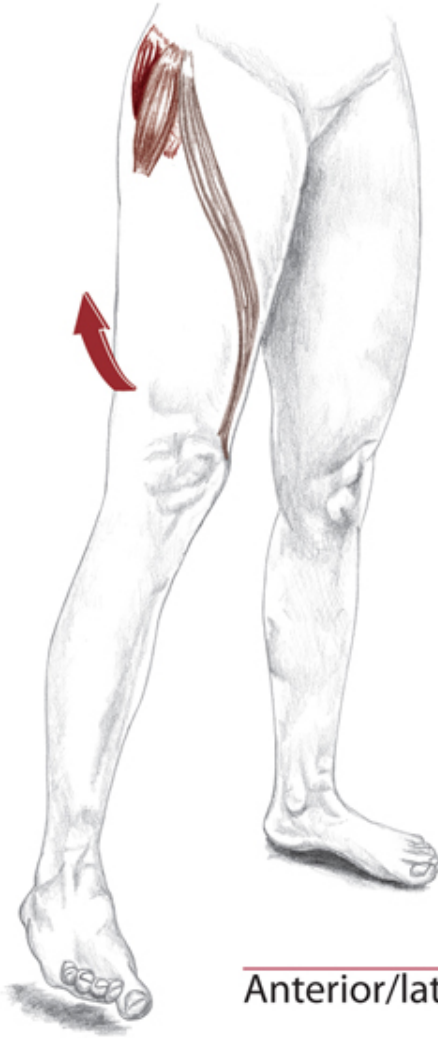
(hip joint)



Posterior/lateral view

Abduction

Gluteus maximus (all fibers)
Gluteus medius (all fibers)
Gluteus minimus
Tensor fasciae latae
Sartorius
Piriformis (when the hip is flexed)*

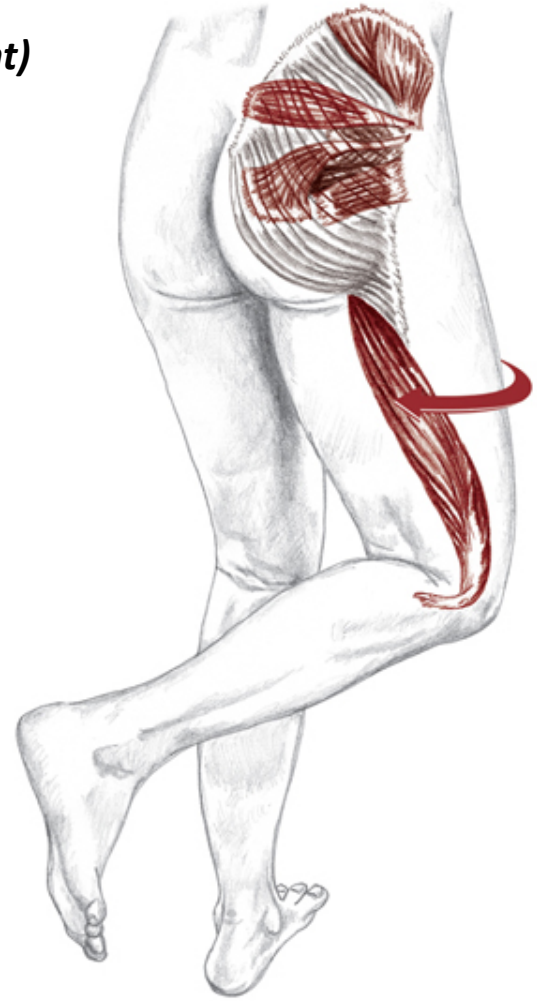


Anterior/lateral view

Reformer exercises for Hip Abduction: Standing, Single Leg Knee Stretch, (Side Lying Leg Work)

Coxal

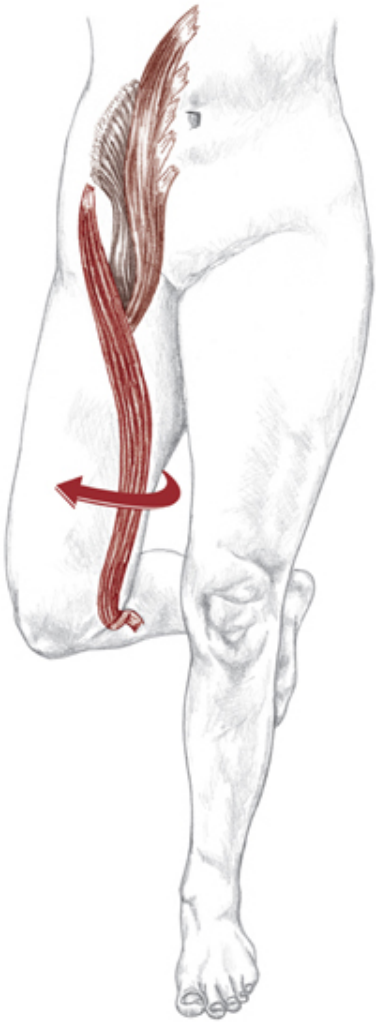
(hip joint)



Posterior/lateral view

Lateral Rotation (external rotation)

- Biceps femoris
- Gluteus maximus (all fibers)
- Gluteus medius (posterior fibers)
- Sartorius
- Piriformis
- Quadratus femoris
- Obturator internus
- Obturator externus
- Gemellus superior
- Gemellus inferior
- Psoas major
- Iliacus



Anterior/medial view

Reformer exercises for Lateral Rotation: Footwork, Feet in Straps, Standing

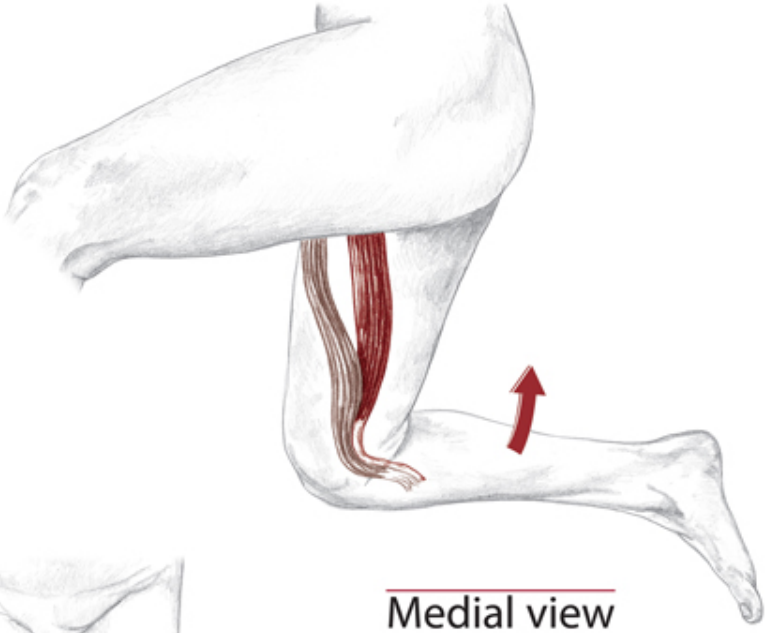
Knee

(tibiofemoral joint)

Reformer exercises for Knee
Flexion: Footwork, Bridging

Flexion
Biceps femoris
Semitendinosus
Semimembranosus
Gracilis
Sartorius
Gastrocnemius
Popliteus
Plantaris (weak)*

Posterior/lateral view



Medial view

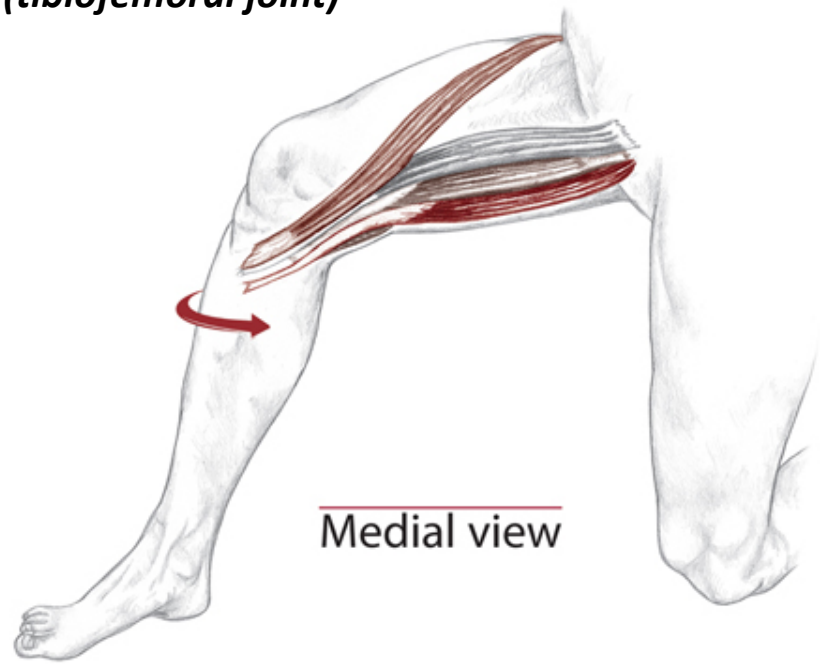
Extension
Rectus femoris
Vastus lateralis
Vastus medialis
Vastus intermedius*

Anterior view

Reformer exercises for Knee Extension:
Footwork, Bridging, Knee Stretch

Knee

(tibiofemoral joint)

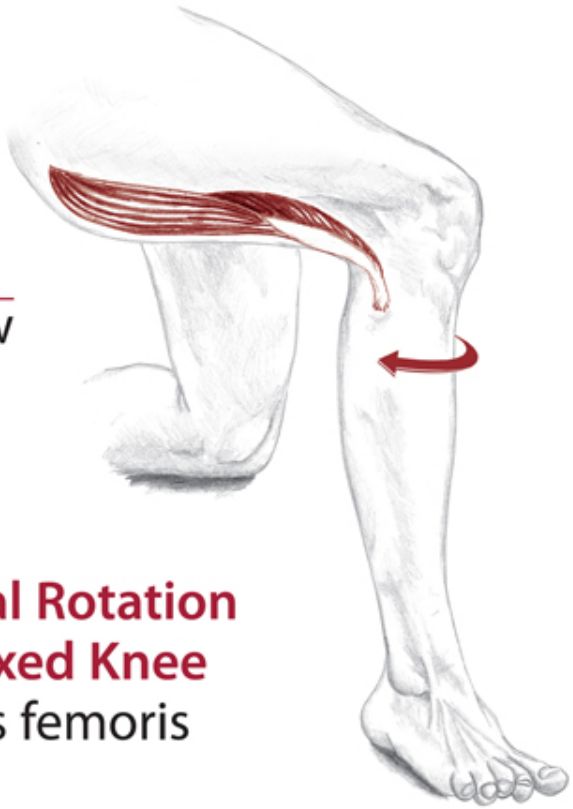


Medial view

Medial Rotation of Flexed Knee

Semitendinosus
Semimembranosus
Gracilis
Sartorius
Popliteus*

Lateral view



Lateral Rotation of Flexed Knee

Biceps femoris

TGB, p.299

Synergists – Muscles Working Together

Ankle

(talocrural joint)

Reformer exercises for Plantar and Dorsiflexion: Footwork, Jumpboard

Posterior/lateral view

Plantar Flexion

- Gastrocnemius
- Soleus
- Tibialis posterior
- Peroneus longus (assists)
- Peroneus brevis (assists)
- Flexor digitorum longus (weak)
- Flexor hallucis longus (weak)
- Plantaris (weak)

Posterior view

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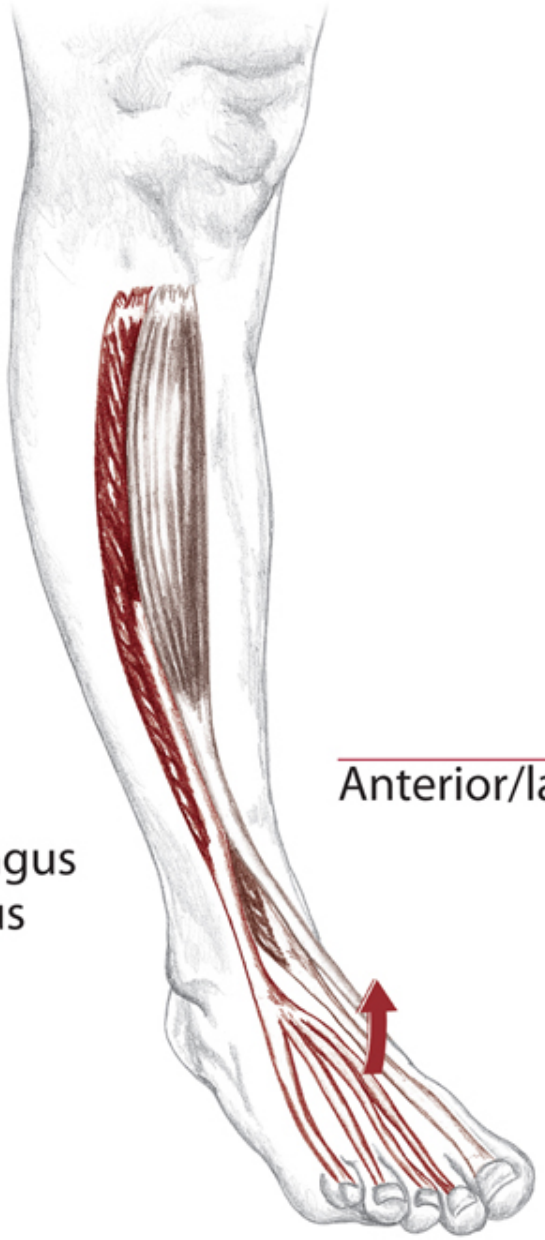
Ankle

(talocrural joint)

Reformer exercises for Plantar and Dorsiflexion: Footwork, Jumpboard

Dorsiflexion
Tibialis anterior
Extensor digitorum longus
Extensor hallucis longus



Anterior/lateral view

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