

Relative Flexibility: Compensation, Progressions & Contraindicated Exercise

Breaking the cycle of compensation

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“It’s not enough to increase movement quantity, if you can also increase movement quality” – B2

Relative Flexibility

- **Relative Flexibility** – A hypothesis introduced by Shirley A. Sahrmann (*Diagnosis and Treatment of Movement Impairment Syndromes*)
- “...stiffness in one muscle group or joint will cause compensatory movement at adjoining joints that are controlled by muscles and soft tissues that exhibit less stiffness.”

What does that mean?

- Your body will follow the path of least resistance!

Defining Relative Flexibility Progressions

- Relative flexibility progressions are gross movement progressions designed to decrease the reliance on compensatory movement patterns during resistance training, while an Integrated Warm-up/Corrective Exercise Program is “practiced”.

Goal

- Reduce the likelihood that compensation patterns will be adopted during the resistance training program.
- Assumption #1: An integrated warm-up or corrective exercise program has been adopted

Assumption #2:

Based on a Standard Resistance Training Template!

- Total Body
 - Chest
 - Back
 - Shoulders
 - Arms
 - Legs
- Can be applied to any phase of training!

Relative Flexibility Progressions

Upper Body Progressions

Back/Pulling

1. Sagittal Plane Row
2. Frontal Plane Pull Down
3. Horizontal Row

Chest/Pushing

1. Sagittal
2. Transverse
3. Incline

Shoulders/Pressing

1. Scaption
2. PNF Carry Away
3. Sagittal Plane Press
4. Frontal Plane Press

General Relative Flexibility Progressions

Lower-Body

1. Leg Press/Ball Wall Squats
2. Squats
3. Step-Ups
4. Lunges
5. Single Leg Squat Touch Down

Alternative

- Dead Lifts

Whole Body:

1. Ball Wall Squats with Arms
2. Squats with Arms
3. Step-Ups with Arms
4. Lunges with Arms
5. Single Leg Squat Touch Down with Arms

UBD Relative Flexibility Template

- **Chest**

1. **Sagittal Plane**
2. Transverse Plane
3. Incline

- **Shoulders**

1. **Scaption**
2. Then Carry Away
3. Then Overhead Sagittal
4. Then Overhead Frontal Plane

- **Back**

1. **Sagittal Plane (Below Shoulder)**
2. Then Sagittal Plane (Above Shoulder)
3. Then Frontal Plane
4. Then Transverse Plane

- **Arms**

- Tricep Extensions (**No Overhead**)
- **No Biceps**

- **Lower Body**

- **No Restrictions**

LPHCD Relative Flexibility Template

- **Chest**
 - No Restrictions
- **Shoulders**
 - Scaption
 - PNF Carry Away
 - Nothing Overhead
- **Back**
 - Sagittal Plane (Below Shoulder)
 - Sagittal Plane (Above Shoulder)
 - Nothing Overhead
- **Arms**
 - No Restrictions
- **Lower Body**
 - Squats
 - Step-Ups
 - No Lunges
 - No Deadlifts

LLD Relative Flexibility Template

Chest

- No Restrictions

Back

- No Restrictions

Shoulders

- No Restrictions

Arms

- No Restrictions

Lower Body

1. Leg Press and/or Ball Wall Squat
 2. Squats with Anterior Load
 3. Squats
 4. Step-Ups
 - Larger Box = More flexibility needed
 5. Then Lunges
- Potential Alternative:
- Deadlifts

Stability Progressions Review

Practical Application

- **Stability** - The ability to optimally recruit motor units to oppose disturbances in equilibrium
 - Stability progressions are built upon several general progressions that can be applied to any exercise.

Body Position & Planes of Motion

- **Body Position:**
 1. Lying
 2. Sitting
 3. Standing

- **Planes of Motion:**
 1. Sagittal
 2. Frontal
 3. Transverse

Modality

- **Modality Progressions:**

1. Machine
2. Barbell
3. Dumbbell
4. Cable/Band
5. Kettle-Bell
6. Suspension Training
7. Etc.

Environment

- **Unstable environments:**
 1. Ground
 2. Ab-mat
 3. Airex Pad
 4. Half-Foam Roll
 5. Uni-planer Balance Board
 6. PB Disk
 7. Bosu Flat Side Up
 8. Etc.

Neuromuscular Progressions

- **Upper-body stability progression:**
 - Bilateral
 - Alternating
 - Unilateral
- **Lower-body stability progression**
 - 2 Legs
 - 1 Leg
 - 2 Legs Unstable
 - 1 Leg Unstable

Special Note

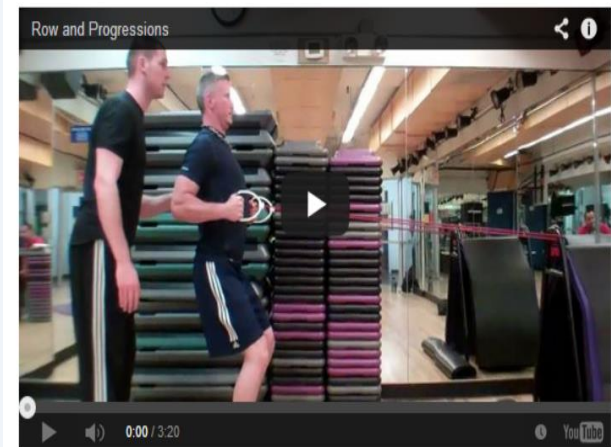
- There are several intermediary steps, a wide variety of modalities, and creative new exercises that should be tested and added to your progressions.

Further Resources

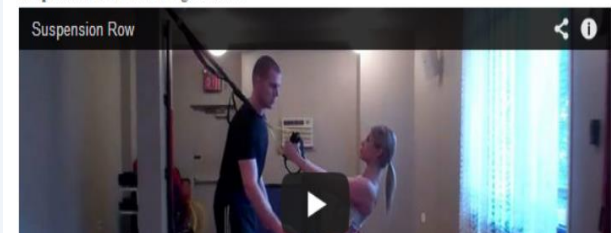
- BrentBrookbush.com
 - Strength Progressions

- ▶ Q & A (16)
- ▶ Questionable Exercises (8)
- ▶ Research Corner (7)
- ▼ Strength Progressions (6)
 - » Back/Pulling Progression
 - » Chest/Pushing Progression
 - » Deadlift Progressions
 - » Integrated Exercise Progression
 - » Leg Strength Progression
 - » Shoulder/Overhead Pressing Progression
- ▶ Welcome to the Brookbush Institute (2)

Standing Band Row and Progressions:



Suspension Row and Progressions:



Building a Routine

Template

- What is the goal?
- What phase are we in?
- What's the dysfunctions?

Building your routine

Body-part	Restriction	Progression
Total Body		
Chest		
Shoulders		
Back		
Arms		
Legs		

Lets Do It!

- Sagittal Plane Push-ups
- Sagittal Plane Press
- Sagittal Plane Row
- Cobras
- Scaption
- Ball Wall Squat
- Ball Wall Squat with Upper Body
- Squat with Anterior Load (Squat to Row)

Q & A – Questionable Exercises

Relative Flexibility and Contraindicated Exercise

- Kettle-bell Windmill
- Straight Leg Deadlifts
- Dips
- Turkish Get-Up
- Knees Out Squat

Take Away - Initial Programming

Total Body

- Squat to Row

Chest

- Sagittal Press

Back

- Sagittal Row or Cobra

Shoulders

- Scaption or UBD Corrective Exercise

Arms:

- Triceps Extensions (or no arms)

Legs

- Single Leg Touchdown

Take Away – Full Disclosure

- These progressions will not work every time, but should decrease the likelihood that clients will compensate and complain of pain.

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Thank You!

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