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”.

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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

## Shoulders/Pressing
1. Scaption
2. PNF Carry Away
4. Frontal Plane Press

## Chest/Pushing
1. Sagittal
2. Transverse
3. Incline
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

**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

**Alternative**
• Dead Lifts
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
Building a Routine
Template

• What is the goal?
• What phase are we in?
• What’s the dysfunctions?
# Building your routine

<table>
<thead>
<tr>
<th>Body-part</th>
<th>Restriction</th>
<th>Progression</th>
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<tbody>
<tr>
<td>Total Body</td>
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<tr>
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</tbody>
</table>
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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