Advanced Uses of Circuit Training
What is a Circuit?
- Collection of Exercises
- Scripted
- Defined Purpose
- Stations or Not?
Circuit Training

- Circuit Construction
  - Common Modalities
    - General Strength Exercises
    - Medicine Ball Exercises
    - Jumping Exercises
    - Weightlifting Exercises
Circuit Training

- Circuit Construction
  - Setting Parameters
    - Exercise Choices
    - Work Times
    - Rest Times
    - Add Ins
    - Ease of Administration
Lactate Basics

- Dangers of Lactic Acid Shock
- Benefits of Lactic Acid Stimulation
- Periodization of Lactic Acid Development
Balancing Fatigue and Performance
Maintaining Power Outputs
Rest Needs
Trial and Error and Workout Alterations
Fitness Training by Running Workouts

- Benefits
  - Energy System Fitness
  - Speed Endurance and Rhythm Development
  - It is Track!
  - Confidence Development
  - Specific Race Preparation and Modeling
Fitness Training by Running Workouts

- Negative Effects
  - Potential Improper Lactate Levels
  - Repetitive Movement Syndromes
  - Flexibility and Mobility Losses
  - Altered Running Mechanics
Advantages of Circuit Training

- Developing Whatever
- Developing Aerobic/Aerobic Fitness
- Developing Endocrine Fitness
- Accelerating Recovery
- Enhancing Glycogen Storage
- Minimizing Repetitive Movements
- Minimizing Injury Risk
- Bad Weather and Space Options
General Strength Circuits

- Purposes
  - Fitness Gains
  - Endocrine Fitness
  - Coordination, Strength, Mobility Improvements
  - Accelerated Recovery
  - Injury Buffer
Types of General Strength Circuits

- Calisthenics
- Specialized Calisthenics
  - Abdominal/Spinal
  - Lower Leg Conditioning
- Stability Circuits
General Strength Exercise Examples
General Strength Circuit Construction

- General Strength Circuits for Fitness Development
  - Exercises for all Body Parts
  - Calisthenics and Specialized Calisthenics
  - Gross, Simple Movements – Lots of Muscle Tissue
  - 12-16 Total Sets of Work
  - Mix Hard/Easy
  - Work Intervals of 15-30 seconds
  - Work to Rest Ratio 2:1 or 1:1
  - Total Length 8-12 minutes
  - 1-2 Circuits (possible Mix)
General Strength Circuit Construction

- Scramble Circuits for Fitness Development
  - 10-12 Sets
  - Gross Callisthenic Exercises
  - Short (10m) Sprints and Other Fun
  - Work Intervals of 15-30 seconds
  - Work to Rest Ratio 1:2
  - Total Length 8-12 minutes
  - Only Once
General Strength Circuit Construction

- General Strength Circuits
  - Recovery Enhancement
    - Exercises for all Body Parts
    - Challenging Ranges of Motion
    - General Calisthenics or Functional Exercises
    - 12-16 Sets
    - Mix Hard/Easy
    - Work Intervals of 15-20 seconds
    - Work to Rest Ratio 1:1
    - Total Length 8-12 minutes
## Sample Callisthenic Circuits

### Taurus
- Pushups
- Prisoner Squats
- V-Sits
- Back Hypers
- Pushups w/Clap
- Rocket Jumps
- Dips
- Cossack Extensions
- L-Overs
- Wrestler’s Bridge
- Swimming
- Burpees

### Leo
- Single Leg Squat (L-R)
- Stationary Lunges (L-R)
- Lunge Jumps (L-R)
- Incline Pushups
- Dips
- Decline Pushups
- Lateral Squats
- Prisoner Squats
- Rocket Jumps
- Kneeling Good Mornings
- Yogis (Front/Back)
- Alternate Pelvic Tilt Heel Slides
- V-Sits
- L-Overs
- Crunches
- Squat Lunge Walks
Sample Specialized Callisthenic Circuits

Pillar

- V-Sits
- Back Hypers
- Side Ups (L-R)
- Leg Toss/Toe Touch/Hip Lifts
- Crunches
- Side Lifts
- Back Hypers w/Twist
- Crunches w/Twist
- L-Overs
- Russian Cossacks (L-R)
- Wrestler’s Bridge
- Pelvic Tilt Isometric
- Pelvic Tilt Bicycle
- Pelvic Tilt Crunches

Gemini

- Single Leg Toe Raises (L-R)
- Squat Toe Raises
- Side Foot Toe Raises (L-R)
- Closed Everted Toe Squats
- Toe Lunge Walk (L-R)
General Strength Circuit Construction

- General Strength Circuits for Stability
  - Specialty Exercises
  - 10-12 Total Sets
  - Mix Body Parts/Positions
  - Work Intervals of 15-30 seconds
  - Work to Rest Ratio 1:1:1 (L:R:Rest)
  - Total Length 8-12 minutes
  - Cautions about Overuse and Exercise Choice
Sample Stability Circuit

Cancer

- Prone Elbowstand Leg Lifts (L-R)
- Supine Elbowstand Leg Lifts (L-R)
- Prone Handstand Leg Lifts (L-R)
- Supine Handstand Leg Lifts (L-R)
- Side Elbowstand Top Leg Lifts (L-R)
- Side Handstand Top Leg Lifts (L-R)
- Side Elbowstand Bottom Leg Lifts (L-R)
- Side Handstand Bottom Leg Lifts (L-R)
- Supine Elbowstand Hip Arch
- Supine Shoulder Bridge Hip Arch
- Low Reach Crunches
- Low Reach Crunches w/Twist
Medicine Ball Circuit's

- Purposes
  - Fitness Gains
  - Endocrine Fitness
  - Coordination, Strength, Mobility Improvements
  - Accelerated Recovery
  - Injury Buffer
  - Advanced Impact and Core Training
Medicine Ball Circuits

- Types of Medicine Ball Work
  - Calisthenics
  - Catch – Toss Work
Medicine Ball Exercise Examples
Medicine Ball Circuit Construction

- Fitness Development
  - 10-15 Sets
  - Exercises for all Body Parts
  - Mix Hard/Easy
  - Mix Callisthenic and Catch-Toss Work
  - Work Intervals of 20-40 seconds
  - Work to Rest Ratio 2:1 or 1:1:1
  - Total Length 8-12 minutes
  - 1-2 Circuits (possible Mix)
Recovery Enhancement

- Exercises for all Body Parts
- 10-15 Sets
- Mix Hard/Easy and Callisthenic /Catch-Toss Work
- Work Intervals of 20-30 seconds
- Work to Rest Ratio 2:1 or 1:1:1
- Repetitions (8-15) a Better option
- Keep Power Output High
- Total Length 8-12 minutes
**Sample Medicine Ball Circuits**

<table>
<thead>
<tr>
<th>Auriga</th>
<th>Bootes</th>
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<tbody>
<tr>
<td>Standing Overhead Forward</td>
<td>Standing Shoulder (L-R)</td>
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<tr>
<td>V-Sits</td>
<td>Back Toss</td>
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<tr>
<td>Good Mornings</td>
<td>Kneeling Good Morning</td>
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<td>Kneeling Shoulder (L-R)</td>
<td>Kneeling Overhead Forward</td>
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<td>Seated Hip (L-R)</td>
<td>Standing Hip (L-R)</td>
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<td>Reach &amp; Hike</td>
<td>Medial Kicks (L-R)</td>
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<td>Rotation Exchange (CW-CCW)</td>
<td>Lateral Kicks (L-R)</td>
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<td>Medial Knee Toss (L-R)</td>
<td>Hurdle Reach (L-R)</td>
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<td>Lateral Knee Toss (L-R)</td>
<td>Leg Ad-Abs</td>
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<tr>
<td>Toe Toss</td>
<td>Kneeling Overhead Back Exchange</td>
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<tr>
<td>Prone</td>
<td>Knee Squeezers</td>
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<tr>
<td>Seated Roll</td>
<td>Prone Overhead Back</td>
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In Place Jump Circuits

- Purposes
  - Fitness Gains
  - Elastic Strength Improvements
  - Building Plyometric Volumes Safely
  - Injury Buffer
In Place Jump Circuits

- Types of In Place Jump Work
  - Easy/Hard
  - Deep/Shallow
  - Complex/Simple
  - Double Leg/Single Leg
In Place Jump Exercise Examples
Circuit Construction

- In Place Jump Circuits
  - Fitness and Plyometric Base Development
    - Mix Hard/Easy, Deep/Shallow, Simple/Complex
    - Difficulty of Circuit Determines Single/Double Leg Choices
    - Work Intervals of 12-20 seconds
    - Work to Rest Ratio 1:2
    - Keep Power Output High
    - Total Length 8-12 minutes
## Multijump Circuits

<table>
<thead>
<tr>
<th>Mercury</th>
<th>Venus</th>
<th>Mars</th>
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<tbody>
<tr>
<td>Ankle Bounces</td>
<td>Line Hops</td>
<td>Tuck Jumps</td>
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<tr>
<td>Side Straddled Hops</td>
<td>Buttkick Jumps</td>
<td>Ski Jumps</td>
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<tr>
<td>Front Straddled Hops</td>
<td>180’s</td>
<td>Single Leg Lateral Turns</td>
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<tr>
<td>Crossover Hops</td>
<td>Rocket Jumps</td>
<td>Straddle Jumps</td>
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<td>Diagonal Hops</td>
<td>Speed Skaters</td>
<td>Single Leg Medial Turns</td>
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<td>Bunny Hops</td>
<td>Wideouts</td>
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<td>Zig-Zag Bunny Hops</td>
<td>Squat Freeze Jumps</td>
<td>Single Leg Squat Jumps</td>
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<td>Stepup Jumps</td>
<td>Lunge Jumps</td>
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Bodybuilding Circuits

- Purposes
  - Fitness Gains
  - Coordination and Strength Improvements
  - Accelerated Recovery and Endocrine Fitness
  - Glycogen
Bodybuilding Circuits

- Characteristics of Bodybuilding Exercises
  - Variety of Body Parts
  - Smaller Muscle Groups
  - Simple or Complex
  - Mix of Flexions, Extensions, and Rotations
Bodybuilding Exercise Examples
Circuit Construction

- Bodybuilding Circuits for Endocrine Fitness, Recovery, Glycogen Replenishment
  - Exercises for all Body Parts
  - Mix Flexions, Extensions, Rotations
  - Exercise Order Should Enhance Difficulty
  - 24 Total Sets
  - 10 Repetitions
  - Loads - Feel Number 10
  - Recoveries of 60-90 seconds
Pseudocircuits

- Not True Circuits - Lowered Fitness Demands
- Purposeful Collections of Exercises
- Types
  - Connective Tissue/Fascia Circuits
  - Functional Movement Circuit
General Strength Circuit Construction

- Connective Tissue / Fascia Circuits
  - Not True Circuits
  - Low Walks
  - 5-10 Total Sets
  - 10-20 Meters
  - Work Intervals of 15-30 seconds
  - Work to Rest Ratio as Needed
Sample Connective Tissue/Fascia Circuit

Scorpius

Forward Squat Walk
Backward Squat Walk
Lateral Squat Walk (L-R)
Pushup Walk
Functional Movement Circuits

- Not True Circuits
- Skilled Movements
- Combining Flexibility, Stabilization, and Movement
- 8-16 Total Sets
- 4-8 Repetitions
- Work to Rest Ratio as Needed
Aquarius

Forward Leg Lift (L-R)
Forward Leg Lift/Flex (L-R)
Forward Leg Lift/Circle (L-R)
Russian Cossacks (L-R)
Bridge/Knee Extension (L-R)
Reverse Leg Lift/Flex (L-R)
Half Hypers (L-R)
Lunge/Good Morning w/Twist (L-R)
Half Crunches (L-R)
Crunches
Alternate Pelvic Tilt Heel Slides
Aquarius