Presentation Title: **Myths, Mysteries and Facts! Programming Weight Training for Every Body!**

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Presentation Description: This session will prepare trainers for tackling the many unique goals related to resistance training! From the weekend warrior to the inspired body builder, we will discuss best practices based on scientific research. Finally, attendees will leave with a template for including all imperative information for a weight training routine.

Learning Objectives: After this session, attendees will be able to:
(1) determine if their weight training program contains all the foundational movements
(2) ensure clients are performing all the foundational movements with proper technique
(3) adjust exercise selection to meet clients where they are at in their weight training journey

The Background

I. Recommendations for muscular fitness
   a. Basic formatting
      i. ≥2 days of resistance training for ALL major muscle groups at an intensity that is considered challenging for at least 8-12 repetitions (ACSM GETP, 2020)
         1. Major muscle group include but are not limited to:
            a. lower body anterior muscle groups (i.e., quadriceps, hip flexors)
            b. lower body posterior muscle groups (i.e., hamstrings, gluteals)
            c. upper body anterior muscle groups (i.e., pectoralis major, anterior deltoid)
            d. upper body posterior muscle groups (i.e., trapezius, latissimus dorsi, rhomboids)
            e. mid-torso anterior muscle groups (i.e., rectus abdominus, transverse abdominus)
            f. mid torso posterior muscle groups (i.e., erector spinae, quadratus lumborum)
      ii. Intensity is of training dependent on training status of exerciser
         1. 60-70% 1RM for novices?
         2. Wide range of possibilities for experienced?
   b. Goal of guidelines
      i. Resistance exercise should strengthen primary muscle groups surrounding major joints
         1. Considerations for spine, hip, knee, shoulder joint
      ii. Improve or maintain muscle quality overtime
         1. Cross-sectional area of contractile proteins
         2. Limiting of fat infiltration
      iii. Improve or maintain bone mineral density
         1. Site-specific vs. whole-bone improvements

II. Movements vs. Muscle Groups for Weight Training Design
   a. There are eight (8) foundational movements that can be addresses to target all major muscle groups in a single workout
      i. Hip dominant movement (hinge, bridge)

ii. Knee dominant movement (pressing, standing, step-up)
iii. Horizontal push (bench press, push-up)
iv. Horizontal pull (row, inverted body row)
v. Vertical push (shoulder press variations)
vi. Vertical pull (lat pulldown, pullup)
vii. Anti-rotation (plank, plank variations)
viii. Rotation (pushing/pulling around base)

b. Foundational movement can be progressed and modified based on client needs
    i. Progressions are adjustments that increase the difficulty of an exercise due to its complexity of movement (no consideration to load/weight used)
    ii. Modifications are adjustments that decrease the difficulty of an exercise by simplifying the movement (limited consideration to load/weight used)
c. Considerations for proper technique of foundational movements
    i. Determination of what is stable and what is dynamic
        1. Posture
        2. Shoulder girdle

Resistance Training Tools & Programs

Basic RT Toolkit

Area of focus	Hip dominant	Knee dominant	Horizontal Push	Horizontal Pull	Vertical Push	Vertical Pull	Rotation/ Anti-rotation
Movement	Dead lift	Squat	Bench Press	Bent-over Row	Shoulder Press	Lat Pull-down	Plank
Modification	Hip bridge	Leg Press	Chest Press	Seated row	Wall slides	Modified cobra	Quadruped
Primary muscle group(s)	Gluteals / Hamstrings	Gluteals / Quadriceps	Pectoralis major / anterior deltoid / triceps	Trapezius / posterior deltoid / biceps	Deltoids / Upper trapezius / triceps	Latissimus dorsi / lower trapezius / biceps	Abdominal wall / spine stabilizers