

**Reserve Health  
Fire Academy Recruit Education**

**UPPER BODY STRENGTH & MOVEMENT**

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**MUSCULAR CONTRACTIONS**

**Contraction Types**

- Concentric Phase: Shortening of muscle fibers
  - Eccentric Phase: Lengthening of muscle fibers
  - Isometric Training: No shortening or lengthening of muscle fibers
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**MOVEMENT PATTERNS**

**Upper Body Strength**

- Pushing: Moving objects away from origination point
- Pulling: Moving objects toward origination point
- Supporting: Maintaining an object's location in space

**Core Strength**

- Trunk Flexion: Forward movement of the spine
  - Trunk Extension: Backward movement of the spine
  - Trunk Rotation: Twisting with stationary lower body
  - Trunk Lateral Flexion: Moving shoulder toward hip on either side (left or right)
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**REMEMBER**

\*\* There's no such thing as a "pressing muscle" \*\*

\*\* Muscles are approximately 40% [ +/- ] stronger eccentrically \*\*

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**STRENGTH TRAINING INSTRUCTION**

**Functional Movements**

- (1) [SA DB Hang Power Clean](#) [no press]
  - 1 round x 6 reps [each side]
  - 1 round x 3 reps [each side]
- (2) [SA<sup>1</sup> DB<sup>2</sup> Push Press](#) [no clean]
  - 1 round x 6 reps [each side]
  - 1 round x 3 reps [each side]
- (3) [SA DB Hang Clean Push Press](#)
  - 1 round x 3 reps [each side]
  - 1 round x 1 rep [each side]
- (4) [SA DB Power Snatch](#)
  - 2 round x 2 reps [each side]

**Core Strength**

- [Hanging Knee Raises](#)
- [Seated Overhead Side Bends](#)
- [Superman Extensions](#)
- [Russian Twists](#)

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**TYPES OF STRENGTH**

- Applied Body Mechanics: Movement + Effort
  - “Functional Strength”: Complex Movement + Coordinated Effort
    - “Gym Strength”: Specific Movements + Structured Efforts
    - “Farm Strength”: General Movements + Range of Efforts

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<sup>1</sup> SA: Single-Arm

<sup>2</sup> DB: Dumbbell