Synoptic Mind Map for a Climbing-Specific Strength Training

Dr. Jerry Medernach // 2019

Lower Grade (≤ 5) | **Intermediate** (6a-7a+) | **Advanced** (7b-7c+) | **Expert** (8a-8c) | **Elite** (≥ 8c+)

Tools

- **Bouldering**
  - Projects
  - Onsights
- Systemwall
- Hangboard
- Campusboard
- Vibration Stimuli
  Electro Stimuli

Forms

- Strength Endurance
  - Tabata Protocol & Pyramid
- Maximum Strength
  - **Hypertrophy:**
    → Intensity HIGH (60-85%)
    → Repetition HIGH (8-12)
  - **Intramuscular Coordination:**
    → Intensity VERY HIGH (>85%)
    → Repetition LOW (1-5)
  - **Intermuscular Coordination:**
    → Interaction of various muscle groups
- **Power**
  Strength x Speed
  - **Explosive:**
    → Contraction Speed HIGH
    → Intensity VERY HIGH (85-100%)
    → Repetition LOW (1-5)
  - **Speed:**
    → Contraction Speed VERY HIGH
    → Intensity LOW (50-60%)
    → Repetition HIGH (6-8)
  - **Reactive:**
    → Stretch-Shortening-Cycle

Types

- **Hangs:**
  → <10s MAX for Strength
- **Repeaters:**
  → (Hang 7s + Rest 7s) x7
- **Pull-Ups:**
  →(3 s up + 3 s down) x MAX
- **Lock-Offs:**
  →Symmetric vs. Uneven
  →Half vs. Full Range
  →Frenchies
- **Movings:**
  → Moving Up & Down
- **Double Dynos:**
  →Both Hands
  →Down-Ups (reactive)

Principles

- **Repetition without repetition:**
  → Exercise Execution
  → Exercise Condition
  → Combination of Exercises
- Functional
- Specific
- Individual
- Progressive
- Systematic

Exercise Intensity:
→ LOW (30%) = Local Endurance
→ HIGH (60-85%) = Muscle Growth (Hypertrophy)
→ VERY HIGH (85-100+%) = Muscle Coordination

Medernach, J. (2019): Synoptic Mind Map for a Climbing-Specific Strength Training / www.iclimb.lu