MARAUDER STRENGTH AND CONDITIONING PHILOSOPHY

HEAD STRENGTH AND CONDITIONING COACH
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2 GENERAL OBJECTIVES OF STRENGTH AND CONDITIONING PROGRAM

1. MAXIMIZE PERFORMANCE
2. MINIMIZE INJURY RISK

COMPONENTS OF THE STRENGTH AND CONDITIONING PROGRAM

1. MENTAL CONDITIONING – holding athletes accountable
2. ENERGY – making a positive impact / providing a sense of accomplishment
3. CORRECTIVE EXERCISE/ FLEXIBILITY
4. MOVEMENT SKILL / SPEED WORK – general and specific movements
5. RESISTANCE TRAINING – strength, power, hypertrophy, work capacity
6. ENERGY SYSTEM DEVELOPMENT – conditioning
7. REGENERATION – aids to help speed recovery after workouts (foam roll, stretching, nutrition, sleep, etc.)

CORRECTIVE EXERCISE / FLEXIBILITY

4 Components of Corrective Exercise / Flexibility

1. NEUROMUSCULAR INHIBITION – soft tissue trigger point to calm down the nervous system (foam roll)
2. TISSUE LENGTHENING – specific flexibility to lengthen targeted tight muscles (static stretching)
3. ANTAGONISTIC MUSCLE ACTIVATION – specific activation / strengthening for under-used muscles (glute activation with mini bands)

4. MOVEMENT INTEGRATION – specific exercises used to integrate muscular flexibility and activation with core strengthening (world's greatest)

MOVEMENT

MOVEMENT PREP: World's Greatest, Walking Knee Hugs, Opposite Hand Opposite Foot Quad Stretch, Leg Cradle, Lateral Lunge

SPEED DEVELOPMENT: Start Speed: the ability to overcome the inertia (tendency of the body to resist acceleration) of the body and set it in motion. **Acceleration:** the rate at which the runner overcomes the inertia. **Maximum or Absolute Speed:** is top speed that is achieved by a runner. **Stride Frequency:** number of strides per unit of time; genetically programmed; related to muscle fiber type; most difficult component to improve. **Stride Length:** the distance covered per running stride; ground reaction forces (GRF) are developed by pushing against the ground. **The better technique in an athlete's movements, the faster he can be because the movements are cleaner and less time is lost during movement.**

MOVEMENT SKILL / SPEED WORK: Linear: High Knees, A-Skip, Bounding, Power Skips, Sprints. **Lateral:** Backwards A-Skip, Carioca, Football Shuffle, Backpedal with Reach

PLYOMETRIC TRAINING: Activities that enable a muscle to reach maximal strength in the shortest amount of time.
Purpose: utilize the elastic components of muscles and tendons, as well as the stretch reflex, to increase the power of subsequent movement.
Stretch Shortening Cycle: uses the energy storage capabilities of the serial elastic component of a muscle and the stimulation of the stretch reflex to cause a max increase in muscle recruitment within a minimal amount of time. **If the athlete doesn't have good eccentric control or**

stabilization, they will never be able to achieve maximum power output in concentric phase.

Double Leg Jumps; Depth Jumps

Linear Hops: SL Hop/Non-Counter (stabilize each time), SL Hop/Counter (stabilize each time), SL Hop/Double Contact (stabilize each time), SL Depth Drop

Lateral Hops: SL Lateral Hop/Non-Counter (stabilize each time), SL Lateral Hop/Counter (stabilize each time), SL Lateral Hop/Double Contact, SL Lateral Depth Drop

LADDER DRILLS: Importance of movement quality; Linear & Multidirectional basic movement patterns; Conditioning tool

STRENGTH

ASSESSMENT

PHYSICAL NEEDS ASSESSMENT (TESTING)

a. Performance Test
   i. VJ, BRJ, 40yd sprint, 300yd, Short Shuttle
   ii. Power Clean 3RM (predicted), Squat 3RM (predicted), Bench Press 3RM (predicted)
      1. 1RM Calculation
         a. (WT Lifted x Reps x .03) + WT Lifted = Predicted 1RM

ANATOMY OF STRENGTH WORKOUT

A. Training Movements Not Body Parts!!!
   i. Movement Patterns Defined
      1. Power Exercises
         a. Olympic Lifts
         b. Plyometrics

i. Hops, Bounds, Jumps
ii. Med Ball Rotational Throws, Med Ball Slams, Med Ball Chest Pass, Med Ball OH Throws

2. Upper Body
   a. Vertical Push *(shoulder press)* and Pull *(pull ups)*
   b. Horizontal Push *(bench press)* and Pull *(DB Row)*
   c. Auxiliary – Shoulders *(DB Lateral Raise, Upright Row)*
   d. Auxiliary – Arms *(Bicep Curl, Triceps Pushdown)*

3. Lower Body
   a. Primary Push *(Barbell Squat)*
   b. Secondary Push *(Lunge, Split Squat)*
   c. Primary Pull *(Barbell RDL, Deadlift)*
   d. Hip Dominant Pull *(Single Leg RDL)*
   e. Knee Dominant Pull *(Leg Curl)*

4. Core and Rotational
   a. Core
      i. Intrinsic (local muscles) – Stability Based Strength
         1. Isometric Strength *(Planks, Side Planks, Positional Holds)*
         2. Dynamic Isometric Strength *(Bird Dogs)*
      ii. Extrinsic (global muscles) – Gross movements, Abdominal Strength
         1.

B. Strength Variables
    i. Sets and Reps (Volume)
        1. Strength: 1-6 reps, 2-6 sets
        2. Power: 1-5 reps, 3-5 sets
        3. Hypertrophy: 6-12 reps, 3-6 sets
        4. Muscular Endurance: 12 + reps, 2-3 sets
    ii. Rest Periods
        1. Strength: 2-5 minutes
        2. Power: 2-5 minutes
        3. Hypertrophy: 30s – 90s
        4. Muscular Endurance: 15s – 45s
    iii. Tempos
        1. Varying tempos can change the intensity and focus of a set, repetition, exercise and entire work out.
    iv. Loading
        1. Strength: Greater than 85% of 1RM
        2. Power: Single Effort (Strength Based) 80-90%, Multiple Effort (Speed Based)
        3. Hypertrophy: 67 – 85% of 1RM
        4. Muscular Endurance: Less than 67% of 1RM

REGENERATION

A. Nutrition

The Basic Six: There are six basic nutrients in the foods an athlete can eat.

1. **Carbohydrates**
2. **Fats**
3. **Proteins**
4. **Vitamins**
5. **Minerals**
6. **Water**

(Depletion of any of the following will have a negative impact on performance)

B. Sleep

C. Pool