

Practical Session



Semper Fit
Health and Fitness

Circuit Training

- A type of interval training that combines strength, plyometric, and endurance exercises.
- A series of exercises that are performed for a specified time period with a specified rest period.
- Allows the body to receive the benefits of both cardiovascular and strength adaptations in one workout

Circuit Training Equipment

- Minimal or no equipment, facilities or space needed
- Can be done with resistance such as weights, body weights, ammo cans, sand bags.
- Use whatever is available.

Advantages of Circuit Training

- Use with large groups
- Can be modified easily - e.g. sets, reps , duration, etc.
- Each individual can adapt for their own fitness level.
- Time efficient

Circuit Design

- What demand do you want to stress?
 - Energy system
 - Muscle endurance
 - Muscle strength
 - Strength maintenance
- Circuit Types
 - Weight training
 - Aerobic
 - Anaerobic drills
 - Combinations

Work to Rest Ratios

Manipulate for the desired adaptations:

- Equal work and recovery periods
 - Variation 1: Increase work period and decrease rest periods to increase intensity
 - Variation 2: Begin with short bouts and gradually increase work and recovery periods to increase intensity
- Work period > Rest period
 - Increase lactate threshold

Considerations

- The greater the fitness level of the tactical athlete the shorter the rest period should be (i.e.. 60 sec work/20 sec rest)
- Allow 3-5 minutes between sets to maintain quality work efforts in each set
- Avoid complex lifts or exercises
- Fatigue - when technique breaks down the risk of injury rises
- Familiarity - the athlete should be familiar and competent to perform all exercise included in the circuit.
- Olympic Lifts - should not be included within a circuit.

Sample Circuit Design

- 1-3 sets
- 8-15 separate exercises
- Alternate between upper body, lower body, speed, agility, etc.
 - “Plug and Play” circuit exercises
- Work period = 30-60 seconds
- Rest period = 20-60 seconds

Calisthenics

- Jumping Jacks
- Jump Rope (double hop)
- Run in Place (punch arms front, side)
- Push-ups (narrow/wide)
- Dips
- Donkey kicks
- Side leg raises
- Hip adductions
- Squats (neutral, pile, narrow, single)
- Lunges
- Steam Engines
- Eight County Body Builders
- Monkey Squats
- Dive Bombers
- Mountain Climbers
- Towel Pushes
- Bear Crawls

Abdominals

- Prone flutter kicks
- Back extensions
- Supermans
- Swimmers
- Traditional crunches
- Reverse crunches
- Elbow-to-knee crunches (obliques)
- Heel reaches
- Side crunches
- Heel taps
- Flutter kicks
- V-sit up
- Roll ups/Roll downs
- 4 count abdominals

Core Stability

- Boat Pose
- Plank Pose
- Side Plank
- Reverse Plank
- Sphinx
- Cobra
- Locus
- Pike



Medicine Ball

- Over/Under
- Standing Twists
- Roll Downs/Roll Ups & Throw
- Romanian Twists
- The Twister



Agility Drills

- Shuttle Run
- Hexagon Drill
- Standing long jump with sprint (forward/lateral)
- Sideway squats/shuttle
- Karaoke
- Back pedaling
- Relay race
- Backward skipping

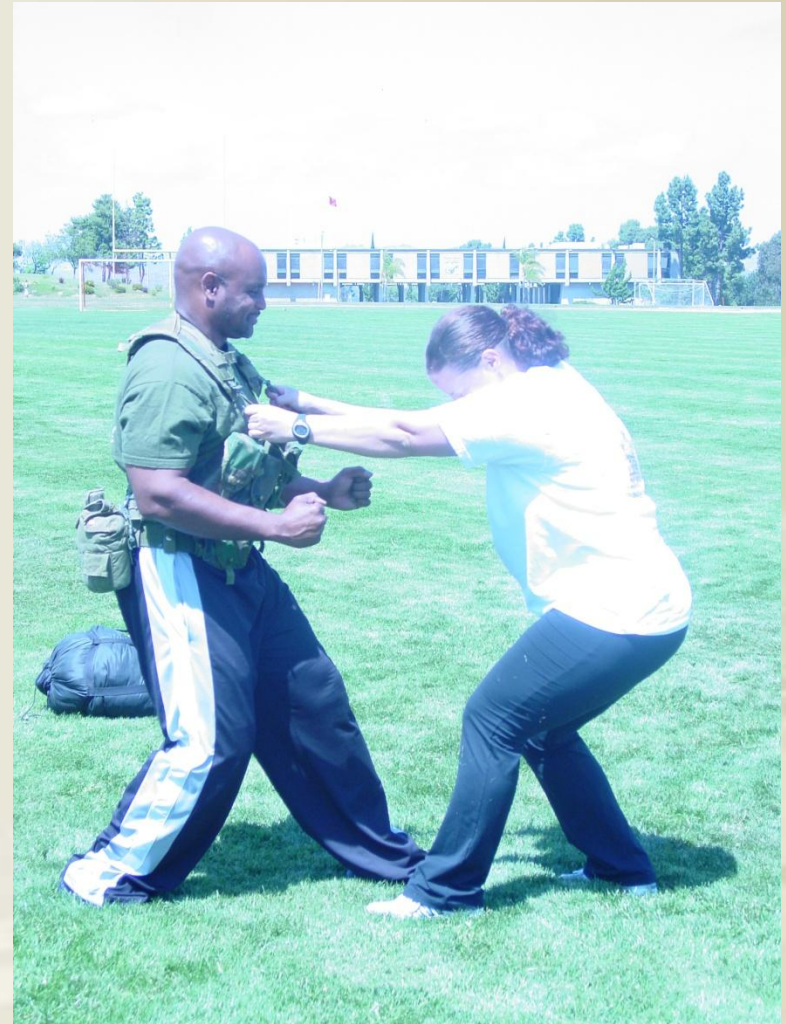


Plyometrics

- Power skip
- Lateral bounds
- Squat jumps with helmet
- Tuck jump
- Split squat
- Standing long jump
- Jumping over ball
- Lateral jumps over ball
- Standing jumps
- Jumping over helmet/pack
- Lateral jumps over helmet/pack
- Standing jumps
- Pushup

Harness Exercises

- Bicep curl
- Overhead triceps extension
- Shoulder press
- Front raises
- Reverse flies with canteen
- Crunches



Miscellaneous

- Casualty carry
- Duck walk
- Crab walk
- Wheel barrel
- Leapfrog
- Bear crawl
- Human t-bar
- *Rifle PT



Traditional Circuit

- Lunges-front/side
- Abdominal crunches
- Mountain Climbers
- Oblique Crunches
- Six count bodybuilders
- Back extensions
- Push-ups

3 sets of each exercise
20 reps each-continuous

Lower body/upper body

- Push-ups
- Casualty Carry
- Human T-bar
- Squats
- Bicep Curls
- Walking lunges



Strength/Cardio Circuit

- Squat jumps
- Jump rope
- Monkey squats
- Jumping jacks
- Steam engines
- Dive bombers
- Run around helmets
- Push-ups
- Lateral squats
- Flutter kicks
- Harness pull
- Human t-bar
- 8 count bodybuilders
- Hurdles over rifles
- Flutter kicks-prone
- Dips

1 minute each station

Practice Session

- Ultimate Athlete #1
 - Dummy Carries
 - Hurdle hops
 - Agility ladder
 - Sled drags
 - Weighted pulls
 - Kettlebell farmer's walk
- Ultimate Athlete #2
 - Running stairs
 - Agility ladder
 - Crunches
 - BOSU hops
 - Running Stairs

Workout of the Day Examples

- Ultimate Athlete #3

- High Knee Runs
- Quick Sprint
- Hurdle Jumps
- Ladder Drills
- Single Leg Squats
- Squat Jumps
- Woodchoppers

- Ultimate Athlete #4

- Butt Kickers
- Bounds
- Hurdle Hops
- Ladder Drills
- Single Leg Squat on BOSU
- Tuck Jump
- One and Two Arm Slams

Group Circuit

Each station is 1 min (on cue)

Jog to each station

Lunges

Flutter kicks

Diamond
Push-ups

Bicep
Curls

Warm-up/PT
Instructor

Squats

Leg Lifts

Push-ups

Crunches

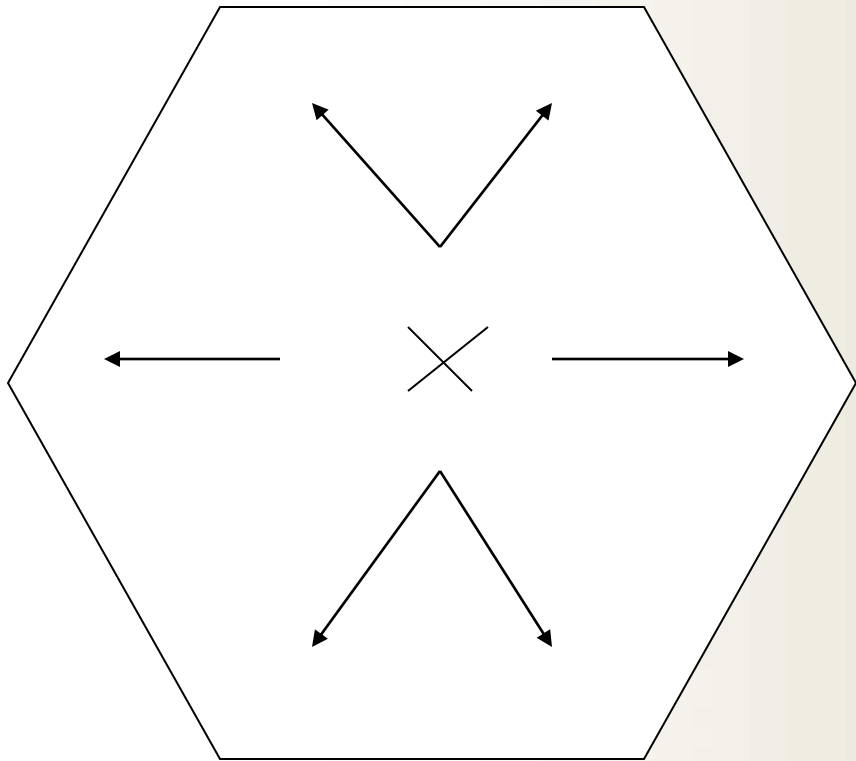
Sprints: 4 X 50, 4 X 100

Agility Drills/Core Circuit Partner

- Warm-up-easy jogging
- Forward/backward run 2 min
- 7-ups 1 min
- Side shuttle 2 min
- Side plank pose 1 min
- Forward squat jumps 2 min
- Abs w/twist 1 min
- Jab, jab, cross 2 min
- Hover hold 1 min
- Hexagon drill 2 min
- 8 count bodybuilders 1 min
- Lateral jumps 2 min
- On guard squat stance 1 min

18 minute circuit
Repeat 2-3 times

Hexagon Drill



Workout Template

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Dynamic Warm-up	REST	X	X	X	X	X	REST
Speed	REST	X	REST	REST	REST	X	REST
Plyometrics	REST	X	REST	REST	REST	X	REST
Agility	REST	REST	REST	X	REST	X	REST
Muscular Strength	REST	REST	X	REST	X	REST	REST
Muscular Endurance	REST	REST	X	REST	X	REST	REST
Core	REST	REST	X	X	X	REST	REST
Cool-down	REST	X	X	X	X	X	REST
Flexibility	REST	X	X	X	X	X	REST

CFT Program Design

- Metabolic Conditioning
- Core
- Strength
- Agility/Balance



CFT Weekly Schedule

- Monday
 - Hardest (Metabolic Conditioning)
- Tuesday
 - Easy or Different (Core, Strength, SAQs)
- Wednesday
 - Medium or Different
- Thursday
 - Easy or Different
- Friday
 - Hard (Metabolic Conditioning)
- Rest
 - Saturday & Sunday

Metabolic Conditioning

- Power, quickness and endurance
- Bouts of intense exercise for 5-7 min
- Examples
 - Sprinting
 - Fartlek
 - Intervals
 - Repetition
- 70-85% MHR for LT conditioning

Metabolic Conditioning

Movement to Contact

- Training Techniques
 - Interval
 - Use 1:1 or 1:1.5 work-to-rest ratio (ex: Run 440y in 85 sec, need 85 sec of recovery)
 - Use in 220y 330y, 440y
 - Longer the distance, the longer rest period
 - Repetition
 - Longer rest interval ratio 1:2 or 1:3
 - Increased intensity (ex: 440y in 80 sec, 120 sec recovery)
 - Fartlek
 - Swedish for “Speed Play”
 - Indicate point to increase intensity to run for 20 sec at high intensity (Note: Energy system used lasts to 30 sec)
 - Slow pace to recovery then conduct another point to run
 - Greater chance to increase 880 capabilities when conducted correctly
 - Test Set
 - Max intervals, record time for comparison

Movement to Contact

- Incorporate all 3 types of runs into your workout
 - 2 times/week is ideal (hard, hardest)
 - Practice progression
 - Start with 220y and build to 880y
 - Warm-up properly to avoid injuries

Type of training	Work to rest ratio	Repeat Distances	Speed of intervals	Volume
Intervals	1:1, 1:1.5	110s, 220s, 330s, 440s, 660s.	Slightly slower than 880 pace	Progress at 5-10% per week.
Repetition Running	1:2, 1:3	110s, 220s, 330s, 440s, 660s.	Aim for 880 pace	Progress at 5-10% per week.
Fartlek(speed play)	Recovery	On your training run.	Aim to push yourself	Start at same distance you were doing, but incorporate short fast runs.

Metabolic Conditioning Continued

- Hardest
 - Monday
 - After dynamic warm-up (Up to 15 min)
 - Example 1
 - Repetition Training
 - 1:30 run to 85% HR, recover 3:30, repeat 4x
 - Example 2
 - Descending Run Intervals
 - 2x 1:30, 3:30 recovery (5:00 total time)
 - 2x 1:15, 2:45 recovery (4:00 total time)
 - 2x 1:00, 2:00 recovery (3:00 total time)
 - 2x 0:45, 1:15 recovery (2:00 total time)

Metabolic Conditioning

Continued

- Hard
 - Friday
 - After dynamic warm-up (up to 15 min)
 - Example 1
 - Test Set
 - 440y max, record time, rest 4 minutes
 - 220y max, record time, rest 2 minutes
 - Repeat 220y max, record time, rest 2 minutes
 - » Sum of 220 and 440 should be 15 sec below 880 time

Core

- Lumbo - pelvic/hip
 - Squats
 - Casualty drags
 - Quadrupeds
 - Planks (various)
 - Supermans



Strength

- Ammo Can lifts
- Firemen's carry
- Farmer's walk
- Lunges



Ammo Lift

- Ammo Lift
 - Standing Medicine Ball/Kettle Bell Shoulder Press
 - 3 sets 30 seconds with progression in weight and time
 - Standing Ammo Can Lift (30lbs.)
 - Standing Dumbbell/Barbell Shoulder Press.
 - Core Strengthening – abdominals/low back (planks, crunches, Supermans, etc.)

Casualty Carry

- Casualty Carry
 - Use rescue dummy and large open area for setup. Mark off 65 yards and set-up dummy on one end.
 - Using your legs (not back muscles) squat down and hook one arm under dummy's crotch while holding right wrist with your other arm.
 - Squat down and lift dummy across shoulder using your legs.
 - Once in the carry position, move quickly back to the start line
 - Repeat this drill increasing repetition and time.

Casualty Carry-Cont.

- Alternatives for Rescue dummy are:
 - Boxing or Thai Heavy Bag
 - Standard Issue Marine
- Gym Equipment exercises:
 - Squat
 - Dead lift
 - Lunges
 - Step ups with bench
- Goal to transition from the casualty drag to the fireman's carry and perform as one exercise.
- Learn the proper mechanics and technique of the drill first prior to speed.

Casualty Carry-Cont.

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Ammo Carry

- Training Techniques

- GOAL: Create strength and stamina for the Ammo Can Carry

- EQUIPMENT NEEDED: (2) 30lbs. ammo cans and/or (2) 30lbs. dumbbells, (5) cones for marking

- Number of Training Sessions per Week: 2-3

- Number of Sets: 3-5

- Rest Time Between Sets: 60 seconds to 3 Minutes
Depending on Length and Intensity of the Farmer's Walk.

- EXERCISE LOCATION: Indoor Training Facility (i.e. Gym, fitness center) or outdoor field

Ammo Carry-Cont.

- Exercise Selection
 - Dumbbell Farmer's Walk
 - Pull-up Bar Dead Hang
- Periodization Examples
 - Exercise #1: 75 yards with 30lbs. Dumbbell/Ammo Cans
 - Rest 60 Seconds, Repeat for a total of 3 sets. (wk 1)
 - Progression to per week: wk 2-40lbs/90sec; wk 3- 50lbs/150sec (repeat); wk 4-60lbs/180sec
 - Exercise #2: Pull-up Bar Dead Hang: Goal 60 Seconds
- NOTE: 75 yards worth of space in a fitness facility is obviously not realistic. Therefore, time yourself on an outdoor Ammo Carry Course, and then replicate the Farmer's Walk for that same amount of time in a small space.
- AFTER WEEK 4, Begin with week 1 again.
 - i.e. Week 1: 75 yards with 30lbs Dumbbell or Ammo Can

Agility/Balance

- Modified high crawls
- Zig zag drills
- Shuttle runs
- Reverse diagonals



Maneuver Under Fire

- Training Suggestions (Overall Conditioning)
 - Using Basketball Court, Parking Lot, or Open Field.
 - Agility Course = 25-50 yard – sprints/high crawl/diagonal runs.
 - Progress to 5 sets timed. Ensure proper form on sprints, crawls, and diagonal runs.
 - Squat Thrusts, Lunges, slaloms – 3 sets 30 seconds.

Workout Schedule

- Tuesday/Thursday
 - Easy
 - After warm-up (up to 15 min)
 - Squats with ammo can
 - Ammo can lifts
 - Planks
 - Supermans
 - Crunches
 - Bicycle crunches

Workout Schedule Continued

- Wednesday
 - Medium
 - After warm-up
 - Shuttle runs
 - Diagonals forward and reverse
 - Squat thrusts
 - Fireman's Carry
 - Farmer's Walk
 - Walking Lunges (option with ammo cans)

CFT Periodization

- **Macrocycle**
 - 6 months (can be base on biannual requirements: 01 Jan-30 Jun; 01 Jul-Dec 31)
- **Mesocycle**
 - 1st 3mos training for PFT (ex: Jan-Mar)
 - 2nd 3mos training for CFT (ex: Apr-Jun)
- **Microcycle**
 - 1 mos cycles working into progression for each successive month.