

Performance Optimization

Stronger. Faster. Safer.

Handout Contents

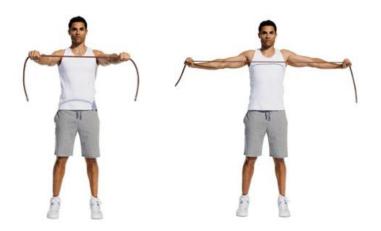
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- Site Specific Warm-Ups Novice Training Week Example Intermediate Training Week Example
- Advanced Training Week Example

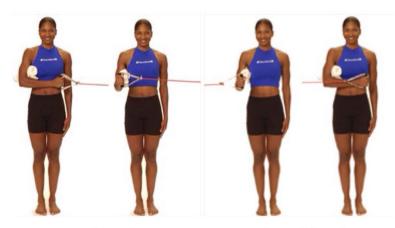
Site Specific Warm-Up Exercises for Resistance Training

Upper Body Series

• **Band Pull Apart**- Hold a band horizontally in front of your body with your hands shoulder width apart. Keeping your arms straight, pull your hands away from each other by squeezing the muscles of your upper back and shoulder blades together. Slowly release to the starting position.



• External and Internal Rotations (With a band): (External Rotation) Tie one end of the resistance band around a sturdy base such as a pole close to waist level. Take the opposite end of the band and hold it with the arm that is farthest away from the base. Keep the elbow bent and close to the body to form a 90-degree angle. Your fist should be centered forward to your body at start. Slowly move your forearm outward to the side and slowly return to start as you maintain the 90-degree angle throughout the exercise. (Internal) Start out in the same position as with the external rotation exercise. This time, however, hold the resistance band with the arm that is closest to the base with your fist to the side. Slowly move forearm inward until it reaches just beyond the center of your body and then slowly return to start.



External Rotation

Internal Rotation

• **Scapular Push-Ups**- Start in a push-up position. Keeping your arms extended, pinch your shoulder blades together, allowing your body to lower slightly. Then push against the floor with your chest to raise yourself back into the starting position.



Back Series

• **Cat Cow** - Begin with your hands and knees on the floor and a neutral spine. Exhale round your spine up towards the ceiling, and imagine you're pulling your belly button up towards your spine, engaging the abs. Tuck your chin towards your chest, and let your neck relax. On your inhale, arch your back, let your stomach relax. Lift your head and tailbone up towards the sky — without putting any unnecessary pressure on your neck.



• **T-Spine Rotations** - Begin with your hands and knees on the floor and a neutral spine. place one hand on the upper back or back of the neck. Begin to rotate leading with the eyes, head and shoulder as far as possible down toward the hand on the floor. Then reverse the motion leading with the eyes, head and shoulder rotating upwards as far as possible.



Hip Series

• Kneeling adductor hip hinge dynamic stretch - In a half kneeling position, straighten out one of your legs and place it directly lateral to your body so that your knees are in line with one another. With a neutral spine and pelvis, you will drop your butt on the kneeling side back to your heel, bringing your arms out straight in front of your body and hip hinging.



• **Deep Squats**- Place your feet into your squat stance with your fee slightly wider than your hips and toes pointed out slightly. Slowly bend your knees and drop your hips down into a deep squat. Using your elbows, push your thigh outward to stretch the inner thigh and groin for a second or two. Slowly stand up and repeat.



• Fire Hydrant Circles- On all 4 fours, make sure your core is braced and nothing moves other than the working leg. Keeping your right leg bent at 90 degrees, take it out to the side and then in a circular motion. Do 5 circles in one direction, then the opposite. Then switch to the other leg.



Leg Series

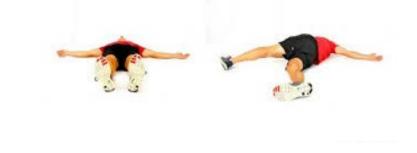
• Leg swings- Hold on to a wall or fixed surface (or do this move without support for an added stability challenge). Swing one leg back and forth as if you're kicking a soccer ball. Do 10 swings on each side.



• Inchworms- Starting in a Downward Dog position on your hands and feet, walk your feet as far forward as possible while keeping your legs straight. Then, walk your hands out, extending your body into a pushup position and lower towards the floor, arching your back so that your head and shoulders reach to the sky. Then, flow back into Downward Dog. Walk your feet in again and repeat 5 times.



• Lying Leg Crossovers- Lying on your back with your arms outstretched in a "T" formation, bring your right leg across your body so that our toes meet your left hand. Return to start and repeat with left leg. Go for 10 reps total.



• **Twisting Reverse Lunge**- From a standing position take a long step back with left foot, drop down into a lunge, and then twist and extend, over your right leg. Then, return to standing and repeat with the other leg/side for a total of 10 reps.



Power Series

• **High Knees** - Lift your knees to waist level while landing lightly—but quickly—on the balls of your feet. Keep an erect posture and pump your arms as if you were sprinting.



• **Butt Kicks** - Begin by standing with your feet about hip-distance apart, with your arms at your side. Bring your heel to your buttocks by contracting your hamstring muscle. Repeat on the opposite leg.



• Marching Knee Pulls - Stand tall with your legs straight and arms hanging at your sides. Kick one knee up, bringing it as high as comfortable. Grasp it with both hands and gently pull it up slightly higher, hugging it to the body. Slowly lower to repeat with the opposite side. Each step should move you forward slightly.



• Walking Quad Stretch - Stand tall with your legs straight and arms hanging at your sides. Kick one foot back, and grasp the ankle with the same hand. Gently pull the ankle towards your rear. Slowly lower to repeat with the opposite side. Each step should move you forward slightly.



• **Deep Lunges**- Take a large step forward and bend at the knees. Once balanced, sink down at the hips to transition into an even deeper lunge past 90 degrees. Step forward to bring both feet back together. Repeat.



• Straight Leg Kicks – Stand tall with your legs and arms hanging at your sides. While keeping your legs straight, kick one forward as high as possible and touch it with your opposite hand. Each kick should move you forward slightly.



Photo References:

19 Exercises to Help You Say Bye-Bye to Boring Crunches. (n.d.). Retrieved from Pop Sugar: https://www.popsugar.com/fitness/photo-gallery/34440685/image/37334500/Kick-Crunch

- 5 Best Stretches to Reset Your Body After Sitting for Several Hours. (n.d.). Retrieved from Stack: https://www.stack.com/a/5-best-stretches-to-reset-your-body-after-sitting-for-several-hours
- Back Lunge with Ball Twist. (n.d.). Retrieved from Women's Health Magazine: https://www.womenshealthmag.com/fitness/a20698167/back-lunge-with-ball-twist/
- Band Pull apart. (n.d.). Retrieved from Blogspot: http://pumpyingbody.blogspot.com/2013/10/bandpull-apart.html
- *Cell Block C.* (n.d.). Retrieved from Mi-r Evolution Trainer: http://mirev.propaganda3.com/workout.php?workout_id=2
- *Dynamic Warm Up Movements.* (n.d.). Retrieved from Form & Fitness: http://www.formandfitness.com/post/dynamic-warm-up-movements
- *Everything You Need to Know About Your Quad Muscles.* (n.d.). Retrieved from Open Fit: https://www.openfit.com/quad-muscles-thigh-anatomy
- *Exerternal Internal Shoulder Roation.* (n.d.). Retrieved from ProActive: https://proactive4pt.com/basicsof-shoulder-health/external-internal-shoulder-rotation/
- High Knee Pulls Exercise of the Week. (n.d.). Retrieved from Maxnrgpt: https://www.maxnrgpt.com.au/blog/exercise-of-the-week/high-knee-pull/
- High Lunge, Crescent Variation. (n.d.). Retrieved from Yoga Journal: https://www.yogajournal.com/poses/high-lunge-variation
- How To Get Better At Push Ups. (n.d.). Retrieved from Endurelite: https://endurelite.com/blogs/freenutrition-supplement-and-training-articles-for-runners-and-cyclists/how-to-get-better-at-pushups

Inchworm. (n.d.). Retrieved from Raykliu Wordpress: https://raykliu.wordpress.com/tag/inchworm/

- *Kick Your Own Butt with Glute Kicks.* (n.d.). Retrieved from FitDay: https://www.fitday.com/fitnessarticles/fitness/kick-your-own-butt-with-glute-kicks.html
- Lateral Kneeling Adductor Mobilization Video Guide. (n.d.). Retrieved from Muscle and Strength: https://www.muscleandstrength.com/exercises/lateral-kneeling-adductor-mobilization
- Limber 11: The Only Lower-Body Warm-Up You'll Ever Need! (n.d.). Retrieved from Bodybuilding: https://www.bodybuilding.com/fun/limber-11-the-only-lower-body-warm-up-youll-everneed.html
- Overcoming Knee Pain with Deep Squats. (n.d.). Retrieved from Movement Solutions: https://movementsolutions-sc.com/2019/03/04/knee-pain-with-deep-squats/
- Straight-Arm Push-Ups Are the Warmup Move You Didn't Know You Needed. (n.d.). Retrieved from Pop Sugar: https://www.popsugar.com/fitness/Straight-Arm-Push-Ups-44475400
- This Is Our Favorite Stretch to Do in Bed: Cat and Cow. (n.d.). Retrieved from Pop Sugar: https://www.popsugar.com/fitness/Relieve-Back-Pain-Cat-Cow-Stretch-8320711
- This Man Stretched 10 Minutes a Day For a Month. Here's What Happened. (n.d.). Retrieved from Bicycling: https://www.bicycling.com/training/a20047901/this-man-stretched-10-minutes-aday-for-a-month-here-s-what-happened/
- *Tight Hips? 9 Powerful Glute Stretches That Will Help.* (n.d.). Retrieved from Yuri Elkaim: https://yurielkaim.com/glute-stretches-tight-hips/



Novice Program Microcycle Example

The following is an example of what a week's worth of training for the Army Combat Fitness Test can look like for individual that is new to lifting. This example involves creating a plan with daily "themes" that coincide the aspects of fitness that are found during the assessment. **Please note that this is A WAY to train, not THE WAY, and is just an example on how to build a weekly program.**

Day 1: Pushing Strength and Endurance

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Upper Body, Hips, & Leg series
- Strength: ~30 minutes
 - Goblet Squat: 3 sets of 6-8 reps
 - Walking Lunge: 2 sets of 8-10 each leg
 - Standing Calf Raise: 2 sets of 12-15 reps
 - Dumbbell Overhead Press: 3 sets of 8-10 reps
 - Dumbbell Bench Press: 2 sets of 8-10 reps
 - Push-Ups: Tabata (20 sec work; 10 sec rest)
 - Plank Hold: 2 sets of 1 min. each
- Recovery Drills: 5-minutes

Day 2: Aerobic Conditioning

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Hips series
- Conditioning: 20-30 minutes
 - o 2-3 Mile Run
- Recovery drills: 5-10 minutes

Day 3: Power and Anaerobic Conditioning

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Power series
- Power: ~20 minutes (performed in stations)
 - 20 Yard Sprints: 5 sets of 5
 - Vertical Jumps: 3 sets of 5
 - Medicine Ball Slam: 3 sets of 5
 - o 5-10-5 Cone Drill: 3 reps
- Conditioning: 10-20 minutes; Complete as many rounds as possible; Rest as needed.
 - Sled Drag: 20 Yards
 - o Bear Crawl: 20 yards
 - Sprint finish: 20 yards
- Recovery Drills: 5-10 Minutes

Day 4: Pulling Strength and Endurance

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Back, Hip, and Leg series
- Strength: ~30 minutes
 - Single Kettlebell Deadlift: 3 sets of 6-8 reps
 - Glute Bridge: 2 sets of 8-10 reps each leg
 - Seated or Standing Bent Knee Calf Raise:
 2 sets of 12-15 reps
 - Band Assisted Pull-Ups: 3 Sets of 5-8
 - Close-Grip Lat Pull Down: 2 sets of 8-12 reps
 - \circ Seated Knee Tuck: 2 sets or 10 reps
- Recovery Drills: 5-minutes

Day 5: Aerobic Conditioning

- Warm-up: 5 min. walk/jog Stability Drills: 5-10 minutes
- Prep Exercises: 1-2 sets of 10-20 reps each
 O Hips series
- Conditioning: 20 minutes
 - o Ruck March
- Recovery Drills: 5-minutes



Intermediate Program Microcycle Example

The following is an example of what a week's worth of training for the Army Combat Fitness Test can look like for individual that has moderate experience (~6-12 months) with weight training. This example involves creating a plan with daily "themes" that coincide the aspects of fitness that are found during the assessment. Please note that this is A WAY to train, not THE WAY, and is just an example on how to build a weekly program.

Day 1: Pushing Strength and Endurance

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Upper Body, Hips, & Leg series
- Strength: ~30 minutes
 - Back Squat: 4 sets of 6-8 reps
 - Step-Ups: 3 sets of 8-10 each leg
 - Single Leg Calf Raise: 3 sets of 12-15 each leg reps
 - o Barbell Bench Press: 4 sets of 6-8 reps
 - Dumbbell Push Press: 3 sets of 8-10 reps
 - Feet Elevated Push-ups: 3 sets of 10-15 reps
 - Plank Hold: 2 sets of 1 min. each
- Recovery Drills: 5-minutes

Day 2: Aerobic Conditioning

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Hips series
- Conditioning: 20-30 minutes
 - o Threshold Interval Run
 - 3 minute run
 - 3 minute walk
 - Repeat 3-5 times
- Recovery drills: 5-10 minutes

Day 3: Power and Anaerobic Conditioning

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Power series
- Power: ~20 minutes
 - Power Skips: 5 sets of 5 each leg
 - o Depth Jumps: 3 sets of 5
 - Medicine Ball Slam: 3 sets of 5
- Conditioning: 10-20 minutes
 - Sled Drag: 25 Yards
 - Suitcase Carry: 25 yards
 - o Sprint Finish
- Recovery Drills: 5-10 Minutes

Day 4: Pulling Strength and Endurance

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Back, Hip, and Leg series
- Strength: ~30 minutes
 - Barbell Deadlift: 4 sets of 6 reps
 - Hip Thrust: 3 sets of 8-10 reps
 - Seated Calf Raise: 3 sets of 12-15 reps
 - Assisted Pull-Ups: 4 Sets of 5-8
 - Close or Neutral Grip Lat Pulldown: 3 Sets of 8-12 reps
 - Barbell Bicep Curl: 3 sets of 8-12 reps
 - Hanging Leg Raise: 3 sets or 10 reps
- Recovery Drills: 5-minutes

Day 5: Aerobic Conditioning

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Hips series
 - Conditioning: 20 minutes
 - Ruck March for Time
- Recovery Drills: 5-minutes



Advanced Program Microcycle Example

The following is an example of what a week's worth of training for the Army Combat Fitness Test can look like for individual that is has been lifting for at least 2-5 years. This example involves creating a plan with daily "themes" that coincide the aspects of fitness that are found during the assessment. **Please note that this is A WAY to train, not THE WAY, and is just an example on how to build a weekly program.**

Day 1: Pushing Strength and Endurance

- Warm-up: 5 min. walk/jog
 - Prep Exercises: 1-2 sets of 10-20 reps each
 - Upper Body, Hips, & Leg series
- Strength: ~30 minutes
 - Front Squat: 5 sets of 3-5 reps
 - Bulgarian Split Squat: 3 sets of 8-10 each leg
 - Single Leg Calf Raise: 3 sets of 12-15 each leg reps
 - Dumbbell Incline Bench Press: 3 sets of 6-8 reps
 - Single Arm Overhead Press: 3 sets of 6-8 reps
 - Hand Release Push-ups: 100 reps in as few sets as possible
 - Plank Hold: 3 sets to failure
- Conditioning: 1 Mile Run for time
- Recovery Drills: 5-minutes

Day 2: Aerobic Conditioning

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - o Hips series
- Conditioning: 20 minutes
 - Long Distance Sprints x 8-10 reps
 - Run hard for 800 Meters
 - Walk back to starting line
 - Recover enough to maintain maximal intensity for each rep.
- Recovery drills: 5-10 minutes

Day 3: Power and Anaerobic Conditioning

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Power series
 - Power: ~20 minutes
 - Ladder Drills 10 Minutes
 - Depth Box Jumps: 3 sets of 5
 - Medicine Ball Slam: 3 sets of 5
- Conditioning: 25/20/15 Meter Sprints (2 sets of each modality)
 - Agility Sprint (focus on change of direction)
 - Sled Push or Drag
 - Farmer's Carry
- Recovery Drills: 5-10 Minutes

Day 4: Pulling Strength and Endurance

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 - Back, Hip, and Leg series
- Strength: ~30 minutes
 - Barbell Deadlift: 5 sets of 3-5 reps
 - Single Leg Hip Thrust: 3 sets of 8-10 reps each leg
 - Seated Calf Raise: 3 sets of 12-15 reps
 - Weighted Pull-Ups: 4 Sets of 5-8
 - Barbell Bicep Curl: 3 sets of 8-12 reps
 - $\circ \quad \text{Hanging Leg Raise: 3 sets of 10 reps}$
- Conditioning: 1 Mile Run for time
- Recovery Drills: 5-minutes

Day 5: Aerobic Conditioning

- Warm-up: 5 min. walk/jog
- Prep Exercises: 1-2 sets of 10-20 reps each
 O Hips series
- Conditioning: 20 minutes
 - Ruck March for Time
- Recovery Drills: 5-minutes