



Building the Soldier Athlete

*Reconditioning (Profile)
Physical Training Supplement*

Mobility



Strength



Endurance



Building the Soldier Athlete: A Profile Physical Training Supplement

Contributions

Over the years, many outstanding leaders from across the Army have contributed to this body of work. While it is impossible to list all of the names individually, we would like to extend a special thanks to CPT Christine Iverson and LTC Jean Anderson who spent countless time researching, developing and formatting this product. We would also like to thank the Soldiers and Civilians in the US Army Medical Specialist Corps, The Office of The Surgeon General's Rehabilitation and Reintegration Division, US Army Research Institute of Environmental Medicine, the Center for Health Promotion and Preventive Medicine, the US Army Physical Fitness School, US Army Medical Department Center & School, US Army Training and Doctrine Command, the Infantry Branch and US Special Operation Command.

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Profile PT: The Basics

The focus of physical fitness training for Soldiers on a temporary profile is to maintain fitness and recover from injury as quickly as possible. Soldiers on a permanent profile focus on maintaining fitness while keeping the injured body part as functional as possible. A balance between executing a challenging exercise program and protecting the Soldier's healing process is required to achieve these fitness goals.

This booklet is a supplement to the handbook "Building the Soldier Athlete" and is designed to be a guide for leaders to use to develop challenging fitness programs that not only maintain fitness but also speed recovery.

Consult with the case manager or medical provider caring for the Soldier if there are any questions. The local physical therapist or occupational therapist is another great resource for information on appropriate fitness programs for injured Soldiers.

This supplemental guide breaks profiled Soldiers into groups to facilitate organized PT. It is still important to read the profile and apply any specific limitations.

This is particularly important for patients with traumatic brain injuries, spinal cord injuries, and polytrauma. These patients may experience memory problems, headaches, irritability, confusion, and dizziness. They may also need to start out at a lower level of cardiovascular training for a shorter amount of time.

Idea Book: Profile Groups

- Break profiled Soldiers into the 6 groups listed below. It may be best in your unit to do this at the battalion level.
- Your unit may already have initiated a standardized profile system to make this easier by placing the group name directly on the profile. If not, the chart below will help for group placement.
- The group program charts on the next few pages outline the daily exercise plan for each group. Follow these plans.
- Reference the appendices for details such as pictures, sets, repetitions, and duration of exercises.

GROUP	GROUP DESCRIPTION
<p style="text-align: center;">RED: LOWER BODY</p>	<p>Most restrictive profile</p> <ul style="list-style-type: none"> - Lower body severe injury - NO IMPACT allowed (must bike or swim ONLY for cardio) - Examples include fractures, acute sprains or strains
<p style="text-align: center;">RED: LOW BACK</p>	<p>Most restrictive back profile</p> <ul style="list-style-type: none"> - Moderate to severe low back pain - NO IMPACT allowed (must bike or Stairmaster ONLY for cardio) - Examples include severe sprains and strains or disc herniations
<p style="text-align: center;">AMBER: LOWER</p>	<p>Less restrictive profile</p> <ul style="list-style-type: none"> - Lower body mild - moderate injury - Mild - moderate low back pain - SOME IMPACT allowed (OK to walk, Stairmaster, or elliptical)
<p style="text-align: center;">AMBER: UPPER</p>	<p>Upper body, upper back, or neck injury</p> <ul style="list-style-type: none"> - Generally these individuals are on a run at own pace profile, but often running is painful because of the jarring and arm swing. - If running is painful but the profile is marked “run at own pace,” running will not only aggravate the injury, but it will waste time the Soldier could be using to get a beneficial cardiovascular workout. - If so, this Soldier should do some other form of cardiovascular training.
<p style="text-align: center;">GREEN: SELF PACED</p>	<p>Upper or lower body SELF PACED</p> <ul style="list-style-type: none"> - SOME IMPACT allowed (i.e. walk, run, swim, and bike at own pace; sit ups and push ups at own pace)
<p style="text-align: center;">GREEN: RECOVERY</p>	<p>Recovery phase of an injury</p> <ul style="list-style-type: none"> - Requires 2x length of profile, up to 90 days

RED-LOWER EXTREMITY

Continuously alternate week A and week B for duration of profile

	Monday	Tuesday	Wednesday	Thursday	Friday
Week A	Preparation	Preparation	Preparation	Preparation	Preparation
	Upper body push & pull	Core strength	Upper body push & pull	Core strength	Upper body push & pull
	Circuit/high-intensity cycle	Pool or long cycle	Circuit/high-intensity cycle	Pool or long cycle	Circuit/high-intensity cycle
	Injury specific exercises & stretches				
Week B	Preparation	Preparation	Preparation	Preparation	Preparation
	Core strength	Upper body push & pull	Core strength	Upper body push & pull	Core strength
	Pool or long cycle	Circuit/high-intensity cycle	Pool or long cycle	Circuit/high-intensity cycle	Pool or long cycle
	Injury specific exercises & stretches				

KEY:

Preparation (Appendix A)	Upper body push & pull (Appendix B)	Core strength (Appendix C)										
<p>5 Minutes warm up*:</p> <ul style="list-style-type: none"> -1 minute rapid air boxing -1 minute front clapper -1 minute rapid air boxing -1 minute front clapper -30 seconds rapid air boxing -30 seconds front clapper <p>*Use light hand weights or boxing gloves to make this harder</p> <p>Followed by preparation drills:</p> <ul style="list-style-type: none"> -Prone row -Push up or modified push up -Modified rower with limited range of motion -Body Twist 	<p>Examples include (but are not limited to):</p> <p>Push:</p> <ul style="list-style-type: none"> -Push ups -Triceps press -Dips -Bench press (including incline/decline) -Medicine ball throws (chest pass, lateral toss, overhead/underhand) <p>Pull:</p> <ul style="list-style-type: none"> -Pull ups -Bicep curls -Rows -Upright row -Flys -Prone row 	<p>Choose 4 exercises, one from each group:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Front:</td> <td style="width: 50%;">Back:</td> </tr> <tr> <td>-Forward plank</td> <td>-Shoulder bridge</td> </tr> <tr> <td>-Crunches</td> <td>-Quadruplex</td> </tr> <tr> <td>-Double crunch</td> <td>-Prone row</td> </tr> <tr> <td>-Bent leg hold</td> <td>-Superman</td> </tr> </table> <p>Side:</p> <ul style="list-style-type: none"> -Side plank -Side sit ups -Bent leg body twist <p>Shoulder:</p> <ul style="list-style-type: none"> -Y's -T's -L's -W's 	Front:	Back:	-Forward plank	-Shoulder bridge	-Crunches	-Quadruplex	-Double crunch	-Prone row	-Bent leg hold	-Superman
Front:	Back:											
-Forward plank	-Shoulder bridge											
-Crunches	-Quadruplex											
-Double crunch	-Prone row											
-Bent leg hold	-Superman											

Circuit/ high intensity cycle	Pool or long cycle	Injury specific exercises & stretches (Appendix D)
<p>Break into groups of 3. Use a stationary bike for cardio. You may need to do these workouts with no or very little resistance, depending on your limitations. While one Soldier is cycling, the other 2 are strength training. Rotate cycle use every 5-10 min.</p> <p>Here are some high intensity options:</p> <p>30 Second Blocks:</p> <ul style="list-style-type: none"> -30 sec moderate, 30 sec hard x 5 minutes -Repeat 4 times per Soldier with active rest (strength training) between blocks <p>3-2-1 Blocks:</p> <ul style="list-style-type: none"> -3 min warm up, 3 min hard -2 min moderate, 2 min hard -1 min moderate, 1 min hard -Repeat 3 times per Soldier with active rest (strength training) between blocks <p>*If you are unable to cycle, make your strength routine part of a cardio circuit by doing 1 min of air boxing, 1 min of front clapper twice (total of 4 min) between each strength set. Add boxing gloves or small hand weights to progress.</p>	<p>Pool or cycle for 30-60 minutes.</p> <p>Pool options include:</p> <ul style="list-style-type: none"> -Lap swim -Deep water running -Shallow end walking -Swimming with float between knees <p>Cycling options include:</p> <ul style="list-style-type: none"> -Stationary cycle (you may need to begin with little or no resistance, depending upon your limitations) <p>*If you are unable to cycle or swim, repeat the following upper-body-only sequence 10 times (total: 30 min):</p> <ul style="list-style-type: none"> -1 min rapid air boxing -1 min front clap -1 min crunches <p>-To add difficulty, do these exercises with weighted boxing gloves or small hand weights.</p> <p>**Other options (if available at your gym) include using a hand bike, seated elliptical, or rowing machine (using arms only).</p>	<p>If enrolled in Physical Therapy:</p> <ul style="list-style-type: none"> -Do prescribed Physical Therapy exercises and stretches. -If another medical provider gave you an exercise handout, do the exercises on that handout. <p>If not yet enrolled in Physical Therapy:</p> <ul style="list-style-type: none"> -Do the exercises outlined in this booklet for the injured body part. If an exercise results in an increase in pain, back down the range of movement or the force of movement until it is no longer painful. If still painful, avoid the painful exercise.

RED-LOW BACK

Continuously alternate week A and week B for duration of profile

	Monday	Tuesday	Wednesday	Thursday	Friday
Week A	Preparation	Preparation	Preparation	Preparation	Preparation
	Push strength/ Pull strength	Core strength	Push strength/ Pull strength	Core strength	Push strength/ Pull strength
	Circuit/high-intensity cycle or Stairmaster	Pool or long cycle/ Stairmaster	Circuit/high-intensity cycle or Stairmaster	Pool or long cycle/ Stairmaster	Circuit/high-intensity cycle or Stairmaster
	Injury specific exercises & stretches				
	Monday	Tuesday	Wednesday	Thursday	Friday
Week B	Preparation	Preparation	Preparation	Preparation	Preparation
	Core strength	Push strength/ Pull strength	Core strength	Push strength/ Pull strength	Core strength
	Pool or long cycle/ Stairmaster	Circuit/high-intensity cycle or Stairmaster	Pool or long cycle/ Stairmaster	Circuit/high-intensity cycle or Stairmaster	Pool or long cycle/ Stairmaster
	Injury specific exercises & stretches				

KEY:

Preparation (Appendix A)	Push strength / Pull strength (Appendix B)	Core strength (Appendix C)		
<p>5 Minutes warm up*:</p> <ul style="list-style-type: none"> -1 minute rapid air boxing -1 minute front clapper -1 minute rapid air boxing -1 minute front clapper -30 seconds rapid air boxing -30 seconds front clapper <p>*Use light hand weights or boxing gloves to make this harder.</p> <p>Followed by preparation drills:</p> <ul style="list-style-type: none"> -Prone row with use of arms -Modified push up -Modified rear lunge -Modified squat bender 	<p>Do 2 upper and 2 lower body exercises each strength session ONLY if not painful.</p> <p>-Before each exercise, brace abdominal muscles as if preparing for a punch to the stomach (be sure you can still move and breathe easily):</p> <p>Push (upper body):</p> <ul style="list-style-type: none"> -Modified push ups -Triceps extensions -Bench press on floor with light dumbbells <p>Pull (upper body):</p> <ul style="list-style-type: none"> -Biceps curl -Seated rows -Flys <p>Push (lower body):</p> <ul style="list-style-type: none"> -Lunges -Calf raises with no weight on shoulders -Leg extension <p>Pull (lower body):</p> <ul style="list-style-type: none"> -Hamstring curl standing with no weight -Toe raise (work shins) -Hip adduction -Hip extension (glutes) 	<p>Choose 4 exercises, one from each group:</p> <table style="width: 100%; border: none;"> <tr> <td style="vertical-align: top;"> <p>Front:</p> <ul style="list-style-type: none"> -Forward plank -Crunches -Double crunch -Bent leg hold <p>Side:</p> <ul style="list-style-type: none"> -Side plank -Side sit ups -Bent leg body twist </td> <td style="vertical-align: top;"> <p>Back:</p> <ul style="list-style-type: none"> -Shoulder bridge -Quadruplex -Prone row -Superman <p>Shoulder:</p> <ul style="list-style-type: none"> -Y's -T's -L's -W's </td> </tr> </table>	<p>Front:</p> <ul style="list-style-type: none"> -Forward plank -Crunches -Double crunch -Bent leg hold <p>Side:</p> <ul style="list-style-type: none"> -Side plank -Side sit ups -Bent leg body twist 	<p>Back:</p> <ul style="list-style-type: none"> -Shoulder bridge -Quadruplex -Prone row -Superman <p>Shoulder:</p> <ul style="list-style-type: none"> -Y's -T's -L's -W's
<p>Front:</p> <ul style="list-style-type: none"> -Forward plank -Crunches -Double crunch -Bent leg hold <p>Side:</p> <ul style="list-style-type: none"> -Side plank -Side sit ups -Bent leg body twist 	<p>Back:</p> <ul style="list-style-type: none"> -Shoulder bridge -Quadruplex -Prone row -Superman <p>Shoulder:</p> <ul style="list-style-type: none"> -Y's -T's -L's -W's 			

Circuit/ high intensity cycle or Stairmaster	Pool or long cycle / Stairmaster	Injury specific exercises & stretches (Appendix D)
<p>Break into groups of 3. Use a stationary bike or Stairmaster for cardio. While one Soldier is using the machine, the other 2 strength train. After every 5-10 minutes, the Soldiers rotate for use of the machine.</p> <p>Here are some example high intensity options:</p> <p>30 Second Blocks:</p> <ul style="list-style-type: none"> -30 sec moderate, 30 sec hard x 5 minutes -Repeat 4 times per Soldier with active rest (strength training) between blocks <p>3-2-1 Blocks:</p> <ul style="list-style-type: none"> -3 min warm up, 3 min hard -2 min moderate, 2 min hard -1 min moderate, 1 min hard -Repeat 3 times per Soldier with active rest (strength training) between blocks <p>*If you are unable to cycle or Stairmaster, make your strength routine part of a cardio circuit by doing 1 min of air boxing, 1 min of front clapper twice (for a total of 4 min) between each strength set.</p>	<p>Pool, Stairmaster, or cycle for 30-60 minutes.</p> <p>Pool options include:</p> <ul style="list-style-type: none"> -Lap swim -Deep water running -Shallow end walking -Kickboard <p>Cycling on the recumbent (sit-back) bike may be more comfortable at first.</p> <p>Stairmaster training using short rapid steps may be the most comfortable.</p> <p>*If you are unable to cycle or swim, repeat the following arms-only sequence 10 times (total: 30 min):</p> <ul style="list-style-type: none"> -1 min rapid air boxing -1 min front clap -1 min of running in place seated or standing with ONLY arms moving -To add difficulty, do these exercises with weighted boxing gloves or small hand weights. <p>**Other options (if available at your gym) include using a hand bike, seated elliptical, or rower.</p>	<p>If enrolled in Physical Therapy:</p> <ul style="list-style-type: none"> -Do prescribed Physical Therapy exercises and stretches. -If unit PA provided an exercise handout, do the exercises on that handout. <p>If not yet enrolled in Physical Therapy:</p> <ul style="list-style-type: none"> -Do the exercises outlined in this booklet for the injured body part. If an exercise results in an increase in pain, back down the range of movement or the force of movement until it is no longer painful. If still painful, avoid the painful exercise.

AMBER-LOWER

Continuously alternate week A and week B for duration of profile

	Monday	Tuesday	Wednesday	Thursday	Friday
Week A	Preparation	Preparation	Preparation	Preparation	Preparation
	Upper body push & pull	Core strength	Upper body push & pull	Core strength	Upper body push & pull
	Circuit/high-intensity cycle, elliptical, or Stairmaster	Pool, walk, or long cycle, elliptical, or Stairmaster	Circuit/high-intensity cycle, elliptical, or Stairmaster	Pool, walk, or long cycle, elliptical, or Stairmaster	Circuit/high-intensity cycle, elliptical, or Stairmaster
	Injury specific exercises & stretches				
Week B	Preparation	Preparation	Preparation	Preparation	Preparation
	Core strength	Upper body push & pull	Core strength	Upper body push & pull	Core strength
	Pool, walk, or long cycle, elliptical, or Stairmaster	Circuit/high-intensity cycle, elliptical, or Stairmaster	Pool, walk, or long cycle, elliptical, or Stairmaster	Circuit/high-intensity cycle, elliptical, or Stairmaster	Pool, walk, or long cycle, elliptical, or Stairmaster
	Injury specific exercises & stretches				

KEY:

Preparation (Appendix A)	Upper body push & pull (Appendix B)	Core strength (Appendix C)																				
<p>5 Minutes warm up:</p> <ul style="list-style-type: none"> -1 minute rapid air boxing -1 minute front clapper -3 min brisk walking* <p>Followed by preparation drills:</p> <ul style="list-style-type: none"> -Prone row -Push up -Modified rower with limited range of motion -Modified bend and reach -Modified high jumper <p>*If brisk walking causes any pain, replace with:</p> <ul style="list-style-type: none"> -1 minute rapid air boxing -1 minute front clapper -30 seconds rapid air boxing -30 seconds front clapper 	<p>Examples include (but are not limited to):</p> <p>Push:</p> <ul style="list-style-type: none"> -Push ups -Triceps press -Dips -Bench press (including incline/decline) -Medicine ball throws (chest pass, lateral toss, overhead/underhand) <p>Pull:</p> <ul style="list-style-type: none"> -Pull ups -Biceps curl -Rows -Upright row -Flies -Prone row 	<p>Choose 4 exercises, one from each group:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Front:</td> <td style="width: 50%;">Back:</td> </tr> <tr> <td>-Forward plank</td> <td>-Shoulder bridge</td> </tr> <tr> <td>-Crunches</td> <td>-Quadruplex</td> </tr> <tr> <td>-Double crunch</td> <td>-Prone row</td> </tr> <tr> <td>-Bent leg hold</td> <td>-Superman</td> </tr> </table> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Side:</td> <td style="width: 50%;">Shoulder:</td> </tr> <tr> <td>-Side plank</td> <td>-Y's</td> </tr> <tr> <td>-Side sit ups</td> <td>-T's</td> </tr> <tr> <td>-Bent leg body twist</td> <td>-L's</td> </tr> <tr> <td></td> <td>-W's</td> </tr> </table>	Front:	Back:	-Forward plank	-Shoulder bridge	-Crunches	-Quadruplex	-Double crunch	-Prone row	-Bent leg hold	-Superman	Side:	Shoulder:	-Side plank	-Y's	-Side sit ups	-T's	-Bent leg body twist	-L's		-W's
Front:	Back:																					
-Forward plank	-Shoulder bridge																					
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-Bent leg hold	-Superman																					
Side:	Shoulder:																					
-Side plank	-Y's																					
-Side sit ups	-T's																					
-Bent leg body twist	-L's																					
	-W's																					

Circuit/ high intensity cycle, elliptical, or Stairmaster	Pool, walk, or long cycle/elliptical/Stairmaster	Injury specific exercises & stretches (Appendix D)
<p>Break into groups of 3. Use a stationary bike, Stairmaster, or elliptical for cardio. While one Soldier is using the machine, the other 2 are strength training. After every 5-10 minutes, the Soldiers rotate for use of the machine.</p> <p>Here are some example high intensity options:</p> <p>30 Second Blocks:</p> <ul style="list-style-type: none"> -30 sec moderate, 30 sec hard x 5 minutes -Repeat 4 times per Soldier with active rest (strength training) between blocks <p>3-2-1 Blocks:</p> <ul style="list-style-type: none"> -3 min warm up, 3 min hard -2 min moderate, 2 min hard -1 min moderate, 1 min hard -Repeat 3 times per Soldier with active rest (strength training) between blocks <p>Spinning:</p> <ul style="list-style-type: none"> -MWR often offers spinning classes 	<p>Pool, walk, elliptical, Stairmaster, or cycle for 30-60 minutes.</p> <p>Pool options include:</p> <ul style="list-style-type: none"> -Lap swim -Deep water running -Shallow end walking -Swimming with float between knees <p>Cycling options include:</p> <ul style="list-style-type: none"> -Renting from MWR or using owned bike -Stationary cycle 	<p>If enrolled in Physical Therapy:</p> <ul style="list-style-type: none"> -Do prescribed Physical Therapy exercises and stretches. -If unit PA provided an exercise handout, do the exercises on that handout. <p>If not yet enrolled in Physical Therapy:</p> <ul style="list-style-type: none"> -Do the exercises outlined in this booklet for the injured body part. If an exercise results in an increase in pain, back down the range of movement or the force of movement until it is no longer painful. If still painful, avoid the painful exercise.

AMBER-UPPER

Continuously alternate week A and week B for duration of profile

	Monday	Tuesday	Wednesday	Thursday	Friday
Week A	Preparation	Preparation	Preparation	Preparation	Preparation
	Lower body push & pull	Core strength	Lower body push & pull	Core strength	Foot March (use progression Appendix F) ONLY if not painful. If painful, do elliptical, Stairmaster or bike for 30-60 min
	Run at own pace, pool, bike, elliptical, or Stairmaster	Circuit/high-intensity cycle, elliptical, or Stairmaster	Run at own pace, pool, bike, elliptical, or Stairmaster	Circuit/high-intensity cycle, elliptical, or Stairmaster	
	Injury specific exercises & stretches	Injury specific exercises & stretches	Injury specific exercises & stretches	Injury specific exercises & stretches	
Week B	Preparation	Preparation	Preparation	Preparation	Preparation
	Core strength	Lower body push & pull	Core strength	Lower body push & pull	Foot March (use progression Appendix F) ONLY if not painful. If painful, do elliptical, Stairmaster, or bike for 30-60 min
	Run at own pace, pool, bike, elliptical, or Stairmaster	Circuit/high-intensity cycle, elliptical, or Stairmaster	Run at own pace, pool, bike, elliptical, or Stairmaster	Circuit/high-intensity cycle, elliptical, or Stairmaster	
	Injury specific exercises & stretches	Injury specific exercises & stretches	Injury specific exercises & stretches	Injury specific exercises & stretches	

KEY:

Preparation (Appendix A)	Lower body push & pull (Appendix B)	Core strength (Appendix C)
<p>5 Minutes warm up: -5 minutes of brisk walking</p> <p>Followed by preparation drills: -Modified rower without use of arms -Modified bend and reach -Rear Lunge -Squat Bender -Modified High Jumper with Arms Low</p>	<p>Examples include (but are not limited to):</p> <p>Push: -Squats -Lunges -Leg press -Calf raises -Leg extension</p> <p>Pull: -Hamstring curl -Toe raise (work shins) -Hip adduction -Hip extension (glutes)</p>	<p>Choose 3 exercises, one from each group:</p> <p>Front: -Crunches -Double crunch -Bent leg hold</p> <p>Side: -Side sit ups -Bent leg body twist</p> <p>Back: -Shoulder bridge</p>

Circuit/ high intensity cycle, Stairmaster, or elliptical	Run own pace, Pool, Bike, Stairmaster, or Elliptical	Injury specific exercises & stretches (Appendix D)
<p>Break into groups of 3. Use a stationary bike, Stairmaster, or elliptical for cardio. While one Soldier is using the machine, the other 2 are strength training. After every 5-10 minutes, the Soldiers rotate for use of the machine.</p> <p>Here are some example high intensity options: 30 Second Blocks: -30 sec moderate, 30 sec hard x 5 minutes -Repeat 4 times per Soldier with active rest (strength training) between blocks</p> <p>3-2-1 Blocks: -3 min warm up, 3 min hard -2 min moderate, 2 min hard -1 min moderate, 1 min hard -Repeat 3 times per Soldier with active rest (strength training) between blocks</p> <p>Spinning: -MWR often offers spinning classes</p>	<p>If running is painful, do pool, walk, elliptical, or cycle for 30-60 minutes.</p> <p>Pool options include: -Deep water running -Shallow end walking</p> <p>Cycling options include: -Renting from MWR or using owned bike -Stationary cycle</p> <p>On the elliptical, place hands on the stationary hand grips.</p>	<p>If enrolled in Physical Therapy: -Do prescribed Physical Therapy exercises and stretches. -If unit PA provided an exercise handout, do the exercises on that handout.</p> <p>If not yet enrolled in Physical Therapy: -Do the exercises outlined in this booklet for the injured body part. If an exercise results in an increase in pain, back down the range of movement or the force of movement until it is no longer painful. If still painful, avoid the painful exercise.</p>

GREEN-SELF PACED

Continuously alternate week A and week B for duration of profile

	Monday	Tuesday	Wednesday	Thursday	Friday
Week A	Preparation	Preparation	Preparation	Preparation	Preparation
	Push strength	Core strength	Pull strength	Core strength	Push strength
	Circuit/high-intensity cycle, Stairmaster, or elliptical	Run own pace	Circuit/high-intensity cycle, Stairmaster, or elliptical	Run own pace	Circuit/high-intensity cycle, Stairmaster, or elliptical
	Injury specific exercises & stretches				
Week B	Preparation	Preparation	Preparation	Preparation	Preparation
	Pull strength	Core strength	Push strength	Core Strength	Pull Strength
	Run own pace	Circuit/high-intensity cycle, Stairmaster, or elliptical	Run own pace	Circuit/high-intensity cycle, Stairmaster, or elliptical	Run own pace
	Injury specific exercises & stretches				

KEY:

Preparation (Appendix A)	Push strength / Pull Strength (Appendix B)	Core strength (Appendix C)
<p>5 Minutes warm up: -5 Minutes of brisk walking or jogging</p> <p>Followed by preparation drills: -Prone row -Push up -Modified rower with limited range of motion -Modified bend and reach -Rear lunge</p>	<p>Do 2 upper and 2 lower body exercises each strength session ONLY if not painful. Examples include (but are not limited to):</p> <p>Push (upper body): -Push ups -Triceps press -Dips -Bench press -Medicine ball toss</p> <p>Pull (upper body): -Pull ups -Biceps curl -Rows -Prone row -Flys -Upright row</p> <p>Push (lower body): -Squats -Lunges -Leg press -Calf raises -Leg extension</p> <p>Pull (lower body): -Hamstring curl -Toe raise (work shins) -Hip adduction -Hip extension (glutes)</p>	<p>Choose 4 exercises, one from each group:</p> <p>Front: -Forward plank -Crunches -Double crunch -Bent leg hold</p> <p>Back: -Shoulder bridge -Quadruplex -Prone row -Superman</p> <p>Side: -Side plank -Side sit ups -Bent leg body twist</p> <p>Shoulder: -Y's -T's -L's -W's</p>

Circuit/ high intensity cycle, Stairmaster, or elliptical	Run own pace	Injury specific exercises & stretches (Appendix D)
<p>Break into groups of 3. Use a stationary bike, Stairmaster, or elliptical for cardio. While one Soldier is using the machine, the other 2 are strength training. After every 5-10 minutes, the Soldiers rotate for use of the machine.</p> <p>-If doing this alone, do the blocks of exercise below with 2-5 min active rest (strength training) between blocks.</p> <p>-Here are some high intensity options: 30 Second Blocks: -30 sec moderate, 30 sec hard x 5 minutes -Repeat 4 times per Soldier with active rest (strength training) between blocks</p> <p>3-2-1 Blocks: -3 min warm up, 3 min hard -2 min moderate, 2 min hard -1 min moderate, 1 min hard -Repeat 3 times per Soldier with active rest (strength training) between blocks</p> <p>Spinning: -MWR often offers spinning classes</p>	<p>Run at own pace and distance; if you experience pain, stop to walk.</p> <p>You can also use the run progression outlined in Appendix E.</p>	<p>If enrolled in Physical Therapy: -Do prescribed Physical Therapy exercises and stretches. -If unit PA provided an exercise handout, do the exercises on that handout.</p> <p>If not yet enrolled in Physical Therapy: -Do the exercises outlined in this booklet for the injured body part. If an exercise results in an increase in pain, back down the range of movement or the force of movement until it is no longer painful. If still painful, avoid the painful exercise.</p>

GREEN-RECOVERY

Continuously alternate week A and week B for duration of profile

	Monday	Tuesday	Wednesday	Thursday	Friday
Week A	Preparation	Preparation	Preparation	Preparation	Preparation
	Push strength	Core strength	Pull strength	Core strength	Foot March Progression
	Return to run progression	Circuit/high-intensity cycle, Stairmaster, or elliptical	Return to run progression	Circuit/high-intensity cycle, Stairmaster, or elliptical	
	Injury specific exercises & stretches	Injury specific exercises & stretches	Injury specific exercises & stretches	Injury specific exercises & stretches	
Week B	Preparation	Preparation	Preparation	Preparation	Preparation
	Pull strength	Core strength	Push strength	Core Strength	Foot March Progression
	Return to run progression	Circuit/high-intensity cycle, Stairmaster, or elliptical	Return to run progression	Circuit/high-intensity cycle, Stairmaster, or elliptical	
	Injury specific exercises & stretches	Injury specific exercises & stretches	Injury specific exercises & stretches	Injury specific exercises & stretches	

KEY:

Preparation (Appendix A)	Push strength / Pull Strength (Appendix B)	Core strength (Appendix C)
<p>5 Minutes of warm up: -5 Minutes of brisk walking or jogging</p> <p>Followed by preparation drills: -Prone row -Push up -Modified rower with limited range of motion -Modified bend and reach -Rear lunge</p>	<p>Do 2 push and 2 pull for upper and lower body ONLY if not painful. Examples include (but are not limited to):</p> <p>Push (upper body): -Push ups -Triceps press -Dips -Bench press -Medicine ball toss</p> <p>Pull (upper body): -Pull ups -Biceps curl -Rows -Prone row -Flies -Upright row</p> <p>Push (lower body): -Squats -Lunges -Leg press -Calf raises -Leg extension</p> <p>Pull (lower body): -Hamstring curl -Toe raise (work shins) -Hip adduction -Hip extension (glutes)</p>	<p>Choose 4 exercises, one from each group:</p> <p>Front: -Forward plank -Crunches -Double crunch -Bent leg hold</p> <p>Back: -Shoulder bridge -Quadruplex -Prone row -Superman</p> <p>Side: -Side plank -Side sit ups -Bent leg body twist</p> <p>Shoulder: -Y's -T's -L's -W's</p>

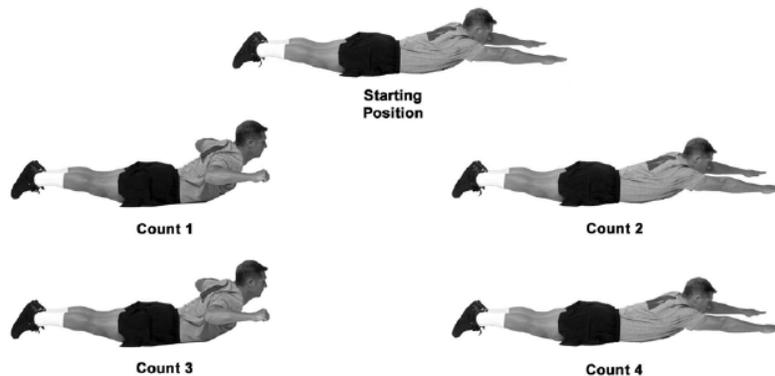
Circuit/ high intensity cycle, Stairmaster, or elliptical	Run progression (Appendix E) Foot March progression (Appendix F)	Injury specific exercises & stretches (Appendix D)
<p>Break into groups of 3. Use a stationary bike, Stairmaster, or elliptical for cardio. While one Soldier is using the machine, the other 2 are strength training. After every 5-10 minutes, the Soldiers rotate for use of the machine.</p> <p>-If doing this alone, do the blocks of exercise below with 2-5 min active rest (strength training) between blocks.</p> <p>-Here are some high intensity options:</p> <p>30 Second Blocks: -30 sec moderate, 30 sec hard x 5 minutes -Repeat 4 times per Soldier with active rest (strength training) between blocks</p> <p>3-2-1 Blocks: -3 min warm up, 3 min hard -2 min moderate, 2 min hard -1 min moderate, 1 min hard -Repeat 3 times per Soldier with active rest (strength training) between blocks</p> <p>Spinning: -MWR often offers spinning classes</p>	<p>Run Progression: -Only every other day. -Follow the Return to Run Progression outlined in the booklet.</p> <p>Foot March Progression: -Only on Fridays. -Follow the Foot March Progression outlined in the booklet.</p>	<p>If enrolled in Physical Therapy: -Do prescribed Physical Therapy exercises and stretches. -If unit PA provided an exercise handout, do the exercises on that handout.</p> <p>If not yet enrolled in Physical Therapy: -Do the exercises outlined in this booklet for the injured body part. If an exercise results in an increase in pain, back down the range of movement or the force of movement until it is no longer painful. If still painful, avoid the painful exercise.</p>

APPENDIX A: PREPARATION

The preparation starts with 5 minutes of activity to get the muscles warm. This is followed by preparation drill exercises. Each group has 4-5 of these exercises assigned (listed in the group's chart).

Prone Row

(RED-LOWER EXTREMITY, AMBER-LOWER, GREEN-SELF PACED, GREEN-RECOVERY only)

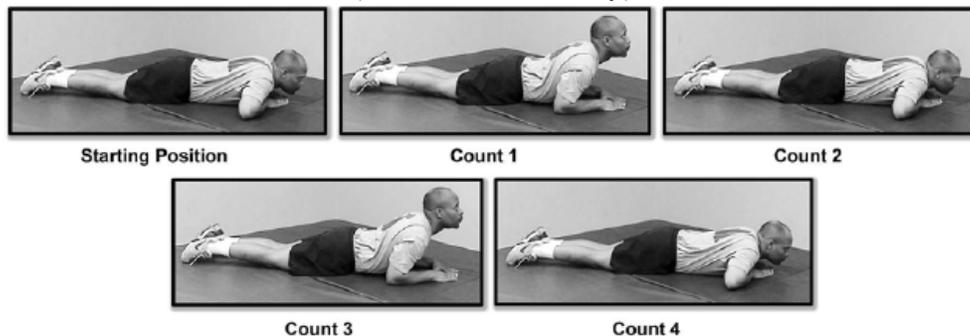


Cadence: Slow

Start position: Prone position with the arms overhead, palms down 1-2 inches off the ground and toes pointed to the rear.

- Count:
1. Using arms for help, raise chest off ground.
 2. Return to the starting position.
 3. Using arms for help, raise chest off ground.
 4. Return to the starting position. Repeat 10 times.

Prone Row Using the Arms (RED-LOW BACK only)

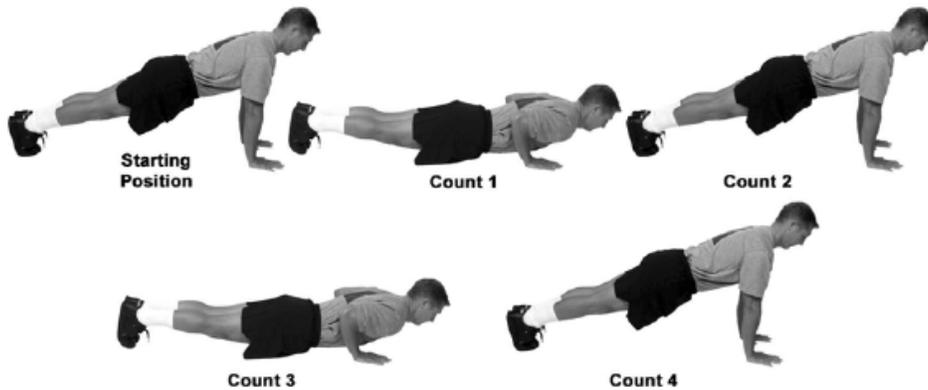


Cadence: Slow

Start position: Lay prone with hands palm down under neck and elbows out 45°

- Count:
1. Using arms for help, raise chest off ground.
 2. Return to the starting position.
 3. Using arms for help, raise chest off ground.
 4. Return to the starting position. Repeat 10 times.

Push Up
(RED-LOWER EXTREMITY, AMBER-LOWER, GREEN-SELF PACED, GREEN-RECOVERY only)

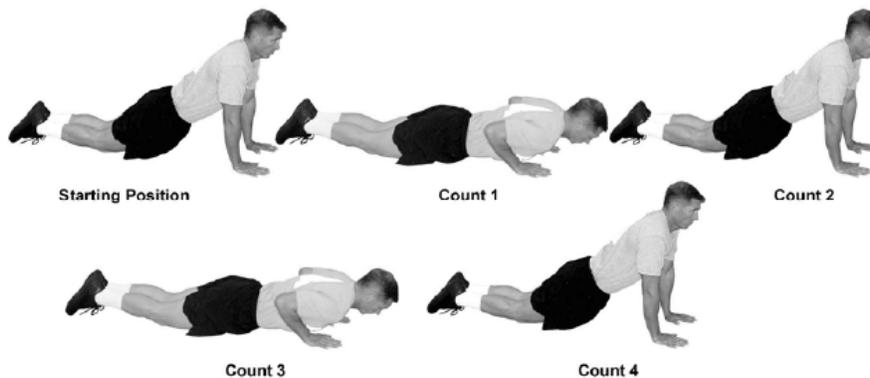


Cadence: Moderate

Start position: Front leaning rest

- Count:
1. Bend the elbows, lowering the body until the upper arms are parallel with the ground.
 2. Return to the starting position.
 3. Repeat count 1.
 4. Return to the starting position. Repeat 10 times.

Modified Push Up
(RED-BACK only)

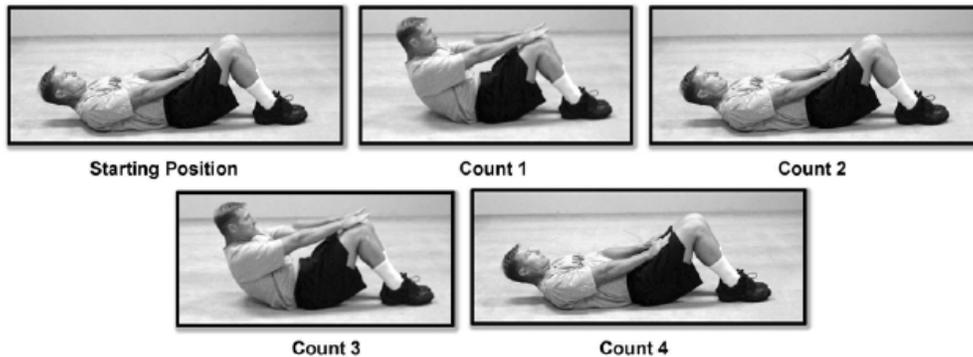


Cadence: Moderate

Start position: Front leaning rest on knees

- Count:
1. Bend the elbows, lowering the body until the upper arms are parallel with the ground.
 2. Return to the starting position.
 3. Repeat count 1.
 4. Return to the starting position. Repeat 10 times.

Modified Rower with Limited Range of Movement
 (RED-LOWER EXTREMITY, AMBER-LOWER, GREEN-SELF PACED, GREEN-RECOVERY only)

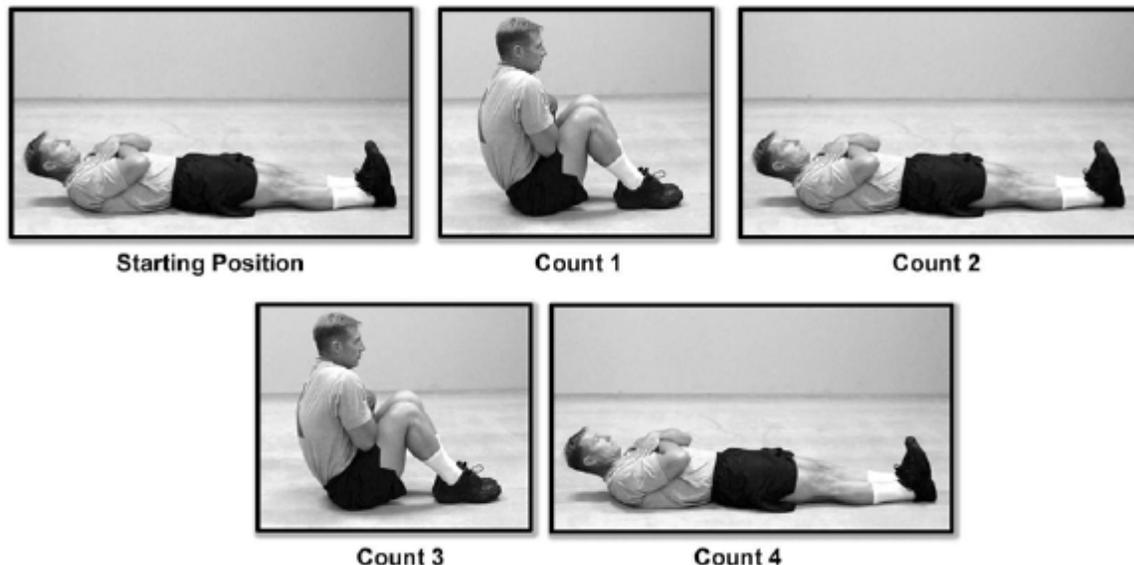


Cadence: Slow

Start position: Supine position, knees bent with feet flat on ground, hands on thighs and head off ground

- Count:
1. Slide hands forward to knees as you sit up, keeping feet on ground.
 2. Return to the starting position.
 3. Repeat count 1.
 4. Return to the starting position. Repeat 10 times.

Modified Rower Without Use of Arms
 (AMBER-UPPER only)

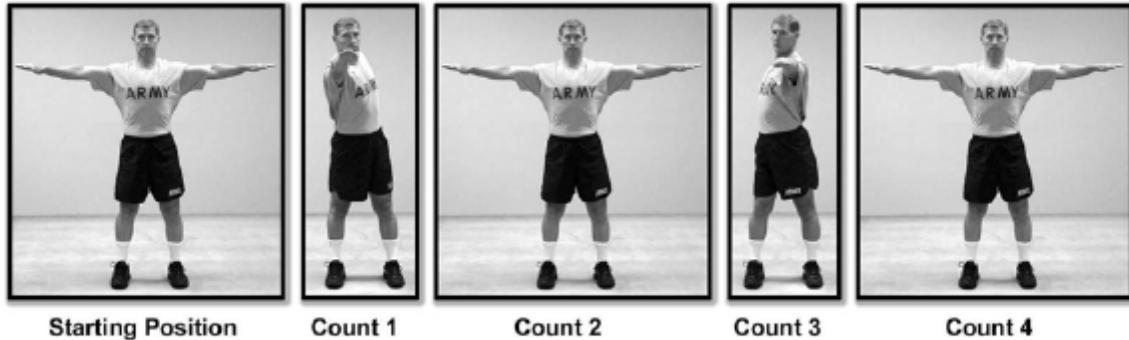


Cadence: Moderate

Start position: Supine position, knees straight, arms across chest and head off ground

- Count:
1. Sit up, keeping arms close to the body and keeping feet on ground.
 2. Return to the starting position.
 3. Repeat count 1.
 4. Return to the starting position. Repeat 10 times.

Body Twist
(RED-LOWER EXTREMITY only)

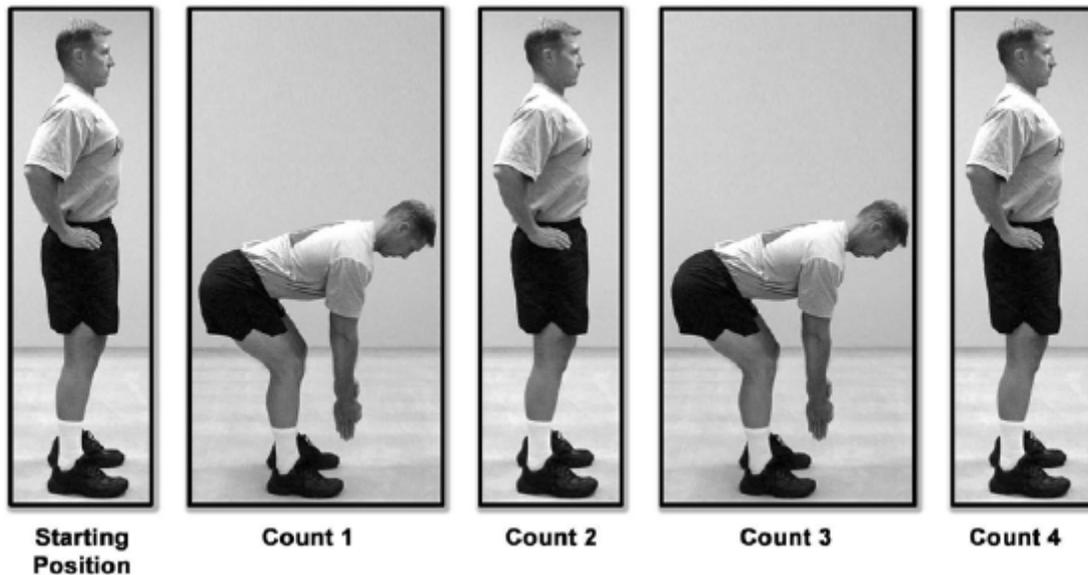


Cadence: Slow

Start position: Straddle stance with arms sideward, palms facing down

- Count:
1. Rotate trunk to the left ONLY so far that it does not increase pain.
 2. Return to the starting position.
 3. Rotate trunk to the right ONLY so far that it does not increase pain.
 4. Return to the starting position. Repeat 10 times.

Modified Bend and Reach
(AMBER-LOWER, AMBER-UPPER, GREEN-SELF PACED, GREEN-RECOVERY only)

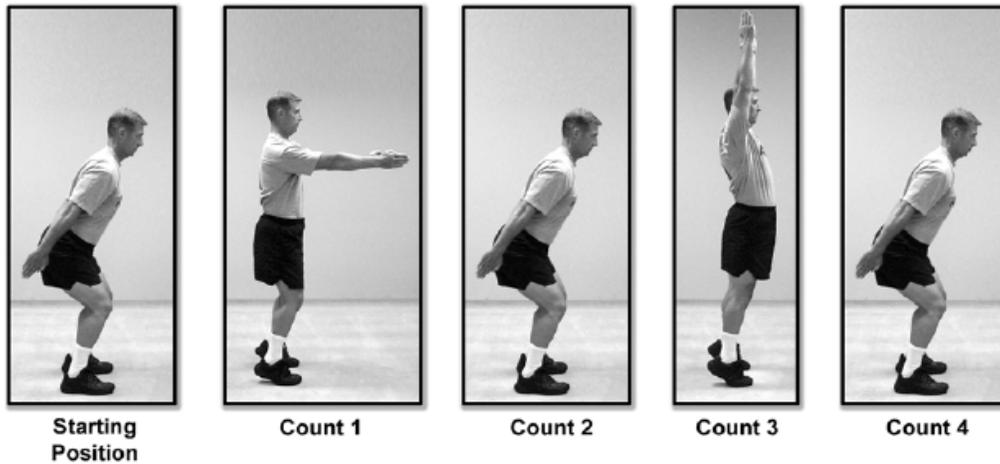


Cadence: Slow

Start position: Straddle stance with hands on hips

- Count:
1. Keep back STRAIGHT, bend at the knees to reach arms straight down to shins (stop before this exercise causes pain)
 2. Return to the starting position.
 3. Repeat count 1.
 4. Return to the starting position. Repeat 10 times.

**Modified High Jumper: Remaining on the Ground
(AMBER-LOWER only)**

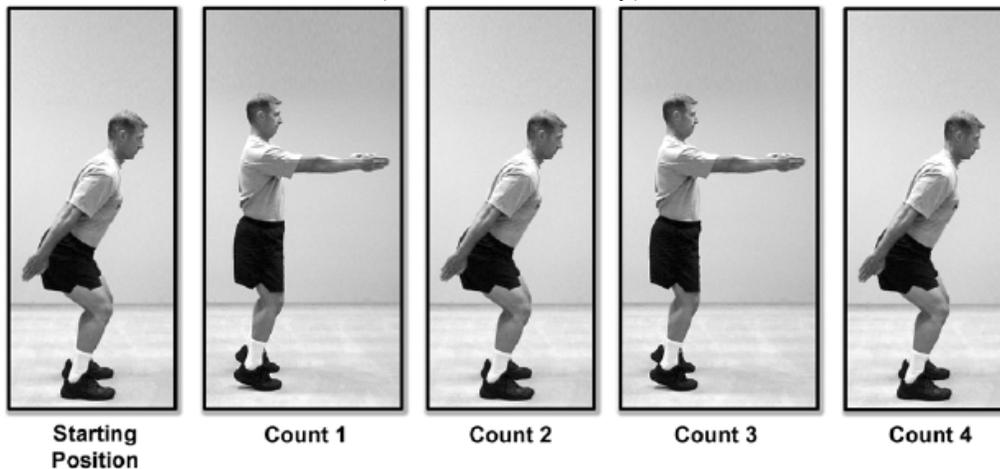


Cadence: Moderate

Start position: Forward leaning stance, knees bent, arms straight, palms facing body

- Count:
1. Swing arms forward, come up on toes, but do not lift off ground.
 2. Return to the starting position.
 3. Swing arms forward and up, come up on toes, do not lift off ground.
 4. Return to the starting position. Repeat 10 times.

**Modified High Jumper: Remaining on the Ground with Arms Low
(AMBER-UPPER only)**

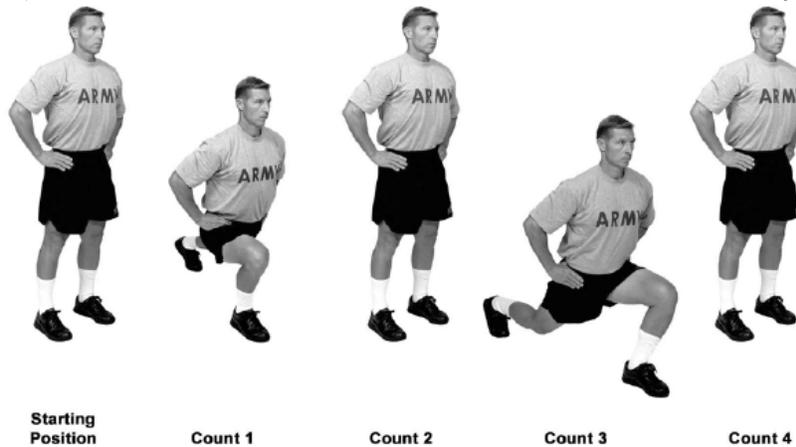


Cadence: Moderate

Start position: Forward leaning stance, knees bent, arms straight, palms facing body

- Count:
1. Swing arms forward, come up on toes, but do not lift off ground.
 2. Return to the starting position.
 3. Repeat count 1.
 4. Return to the starting position. Repeat 10 times.

Rear Lunge
(AMBER-UPPER, GREEN-SELF PACED, GREEN-RECOVERY only)

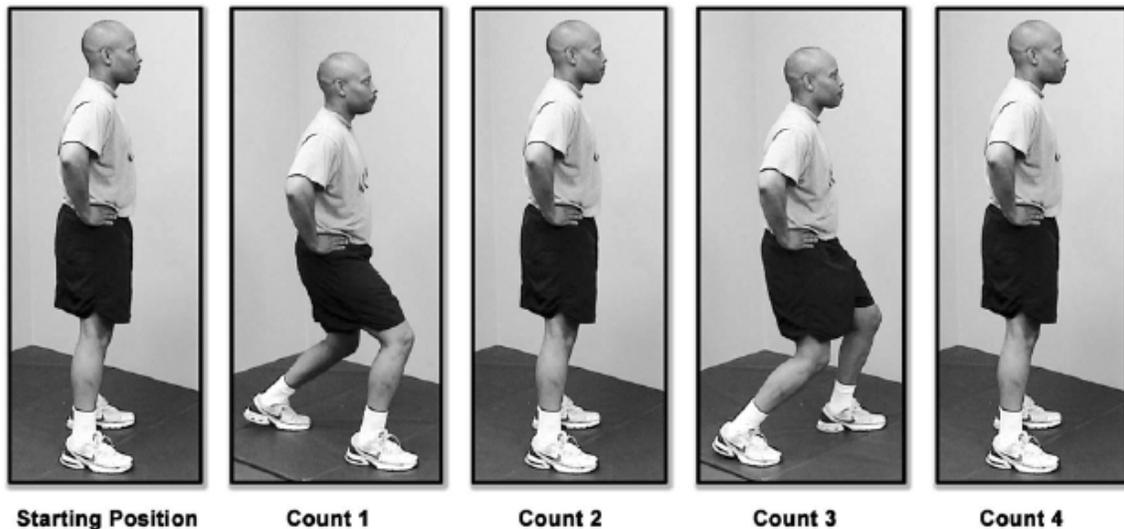


Cadence: Moderate

Start position: Straddle stance, hands on hips

- Count:
1. Take a big step backward with the right leg and touch down with the ball of the foot. Do not let your left knee move in front of your toes.
 2. Return to the starting position.
 3. Repeat count 1 on the opposite side.
 4. Return to the starting position. Repeat 10 times.

Modified Rear Lunge
(RED-LOW BACK only)

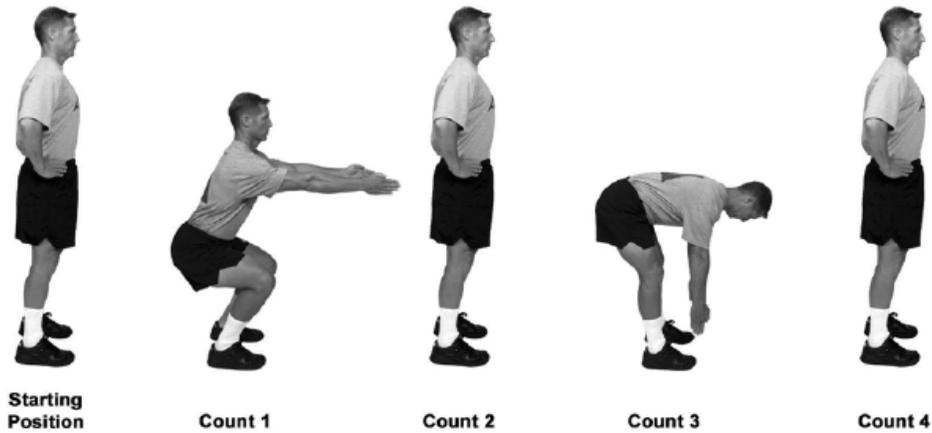


Cadence: Moderate

Start position: Straddle stance, hands on hips, abdominal muscles braced

- Count:
1. Take a short step backward with the right leg and touch down with the ball of the foot. Only go down as far as you can without any pain.
 2. Return to the starting position.
 3. Repeat count 1 on the opposite side.
 4. Return to the starting position. Repeat 10 times.

Squat Bender (AMBER-UPPER only)

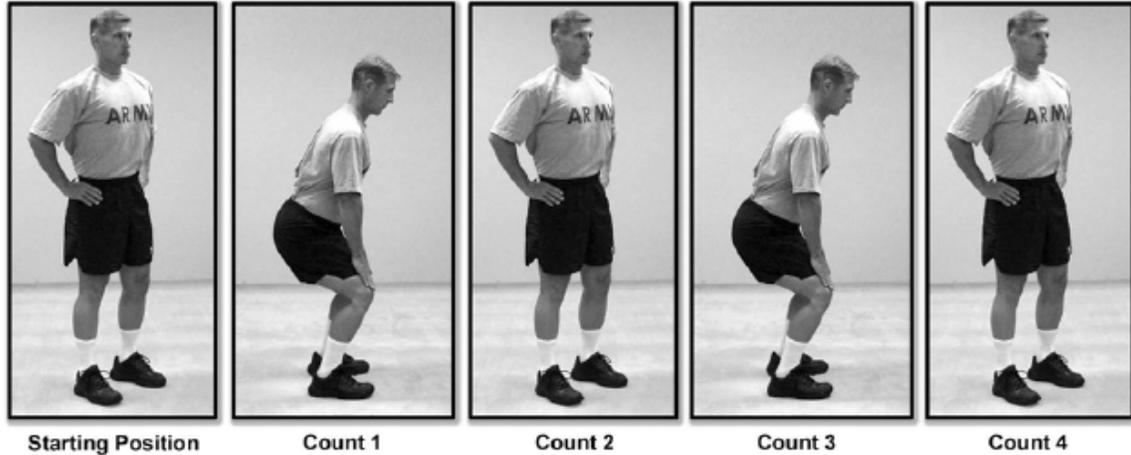


Cadence: Slow

Start position: Straddle stance, hands on hips

- Count:
1. Squat down, keeping the back straight and knees behind the toes.
 2. Return to the starting position.
 3. Keeping the back straight, knees slightly bent, reach for your shins.
 4. Return to the starting position. Repeat 10 times.

Modified Squat Bender (RED-LOW BACK only)



Cadence: Slow

Start position: Straddle stance, hands on hips, abdominal muscles braced

- Count:
1. Squat down, keeping the back straight and knees behind the toes.
 2. Return to the starting position.
 3. Keeping the back straight, knees slightly bent, reach for your shins.
 4. Return to the starting position.

Appendix B: Strength Training Exercises

During the strength training portion, it is important to understand the concept of a repetition maximum (RM).

- One RM (1RM) is the amount of weight that can be moved if only one repetition is done (AKA “maxing out”).
- 3RM is the amount of weight per repetition that can be moved if 3 repetitions are done to complete the set. If you are doing 3RM, the 3rd repetition should feel like you cannot do one more repetition without modifying your form or lowering the weight.
- 8RM is the amount of weight per repetition that can be moved if 8 repetitions are done to complete the set, 12RM is the amount of weight per repetition that can be moved if 12 repetitions are done to complete the set, and so on.

The American College of Sports Medicine (ACSM) recommends 3 sets of 10-12 repetitions as a basic standard for strength training. That is, 3 sets with the amount of weight of 10RM-12RM for 10-12 repetitions per set. You should rest 30-60 seconds between sets. You can use this time to do another exercise.

- Those numbers are useful if you are at the gym and able to manipulate the amount of weight you are using, but not as useful for body-weight exercises such as push ups and pull ups.
 - For these exercises, if the weight moved is greater than 10-12RM (ie pull ups), do more sets and fewer repetitions (ie 6 sets of 5 pull ups), or start with the maximum number of repetitions you can do at one time with perfect form, rest for 1 minute, then complete another set with the maximum possible number you can perform correctly. Repeat 3-4 sets.
 - If the weight moved is lower than 10-12RM (ie push ups), do more repetitions per set (ie 3 sets of 30 push ups), or start with the maximum number of repetitions you can do at one time with perfect form, rest for 1 minute, then complete another set with the maximum possible number you can perform correctly. Repeat 3-4 sets.

If any exercise increases the Soldier’s pain, he/she should decrease the amount of weight, range of movement, or number of repetitions until the exercise does not increase pain. If the exercise still increases pain, skip that exercise.

STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 1: THE LEG PRESS

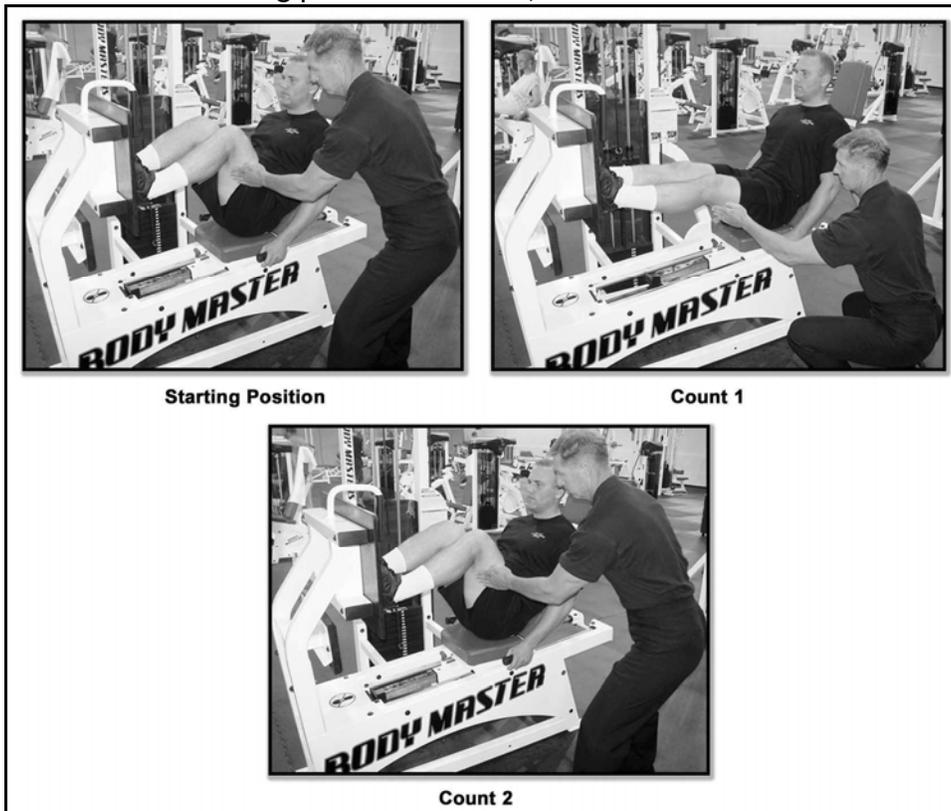
Purpose: This exercise develops strength in the hip and thigh muscles.

Starting Position: Seated position with the knees bent at 90-degrees and feet flat on the foot platform. The hips, low back, shoulders, and head are firmly against the seat back with the eyes looking straight ahead. A natural arch is maintained in the lower back. Select the appropriate weight and ensure the pin is secure in the weight stack. Hands are relaxed and placed on the handgrips.

Cadence: SLOW

Count:

1. Straighten the legs slowly until they are fully extended, not locked.
2. Return to the starting position in a slow, controlled motion.



Check Points:

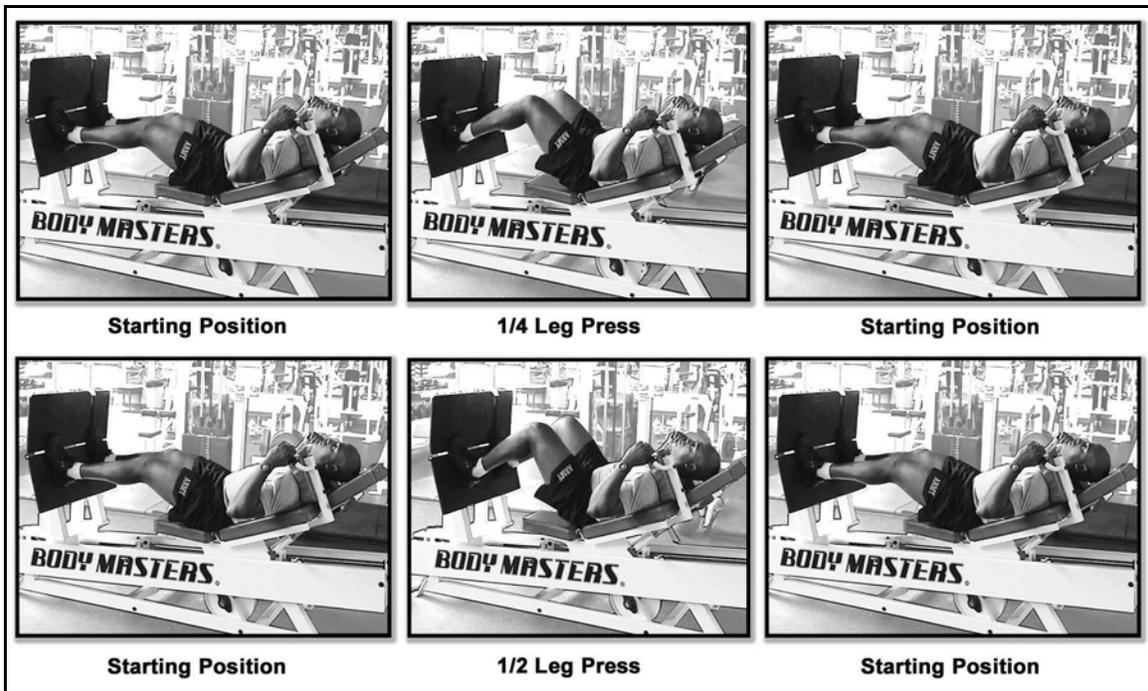
- ❑ The hips, low back, shoulders, and head are firmly against the seat back.
- ❑ Maintain a natural arch in the lower back
- ❑ Exhale on count 1 and inhale on count 2.

Precautions: Do not arch the back or allow the hips to rise off the seat. Do not grip the handgrips tightly.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 1A: MODIFIED LEG PRESS

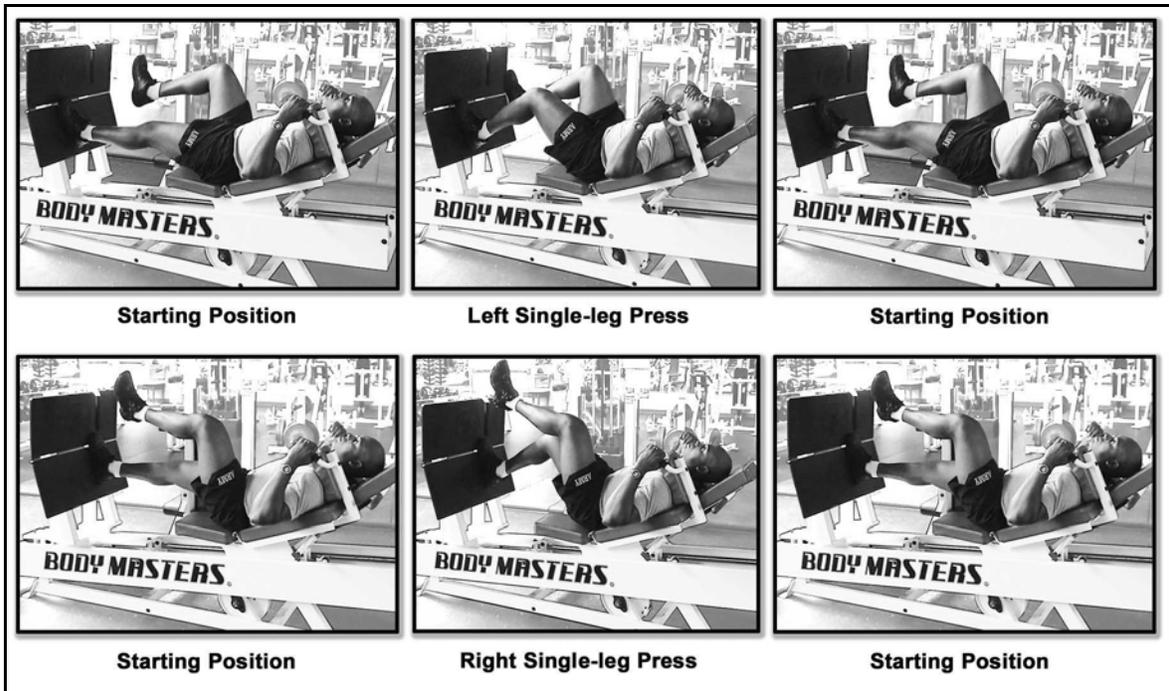
This exercise is performed the same as the Leg Press. However, the range of motion is much less. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion and perform the exercise to standard. The Soldier may also employ the Single-leg Press to maintain a heavy resistance on the good leg and/or to reduce the resistance on the injured leg.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 1B: THE SINGLE-LEG PRESS

This exercise is performed similar to the Leg Press, using only one leg at a time. The range of motion and resistance is decreased for the injured leg. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion. The Single-leg Press is used to maintain a heavy resistance on the good leg and/or to reduce the resistance on the injured leg.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 2: THE LEG CURL

Purpose: This exercise develops strength in the back of the upper leg muscles.

Starting Position: Seated position, knees aligned with the center axis of the machine. The lower leg pad is adjusted to contact the lower legs just above the ankle, allowing the lower leg to be fully extended, but not locked. The lower legs and feet are relaxed. The thigh pad is positioned just above the knees. The hips, low back, shoulders, and head are firmly against the seat back with the eyes looking straight ahead. A natural arch is maintained in the lower back. Select the appropriate weight and ensure the pin is secure in the weight stack. Hands are relaxed and placed on the handgrips on the top of the thigh pad.

Cadence: SLOW

Count:

1. Pull the lower legs to the rear slowly until the lower legs are flexed, forming a 90-degree angle between the upper and lower legs.
2. Return to the starting position by slowly raising the lower legs.



Check Points:

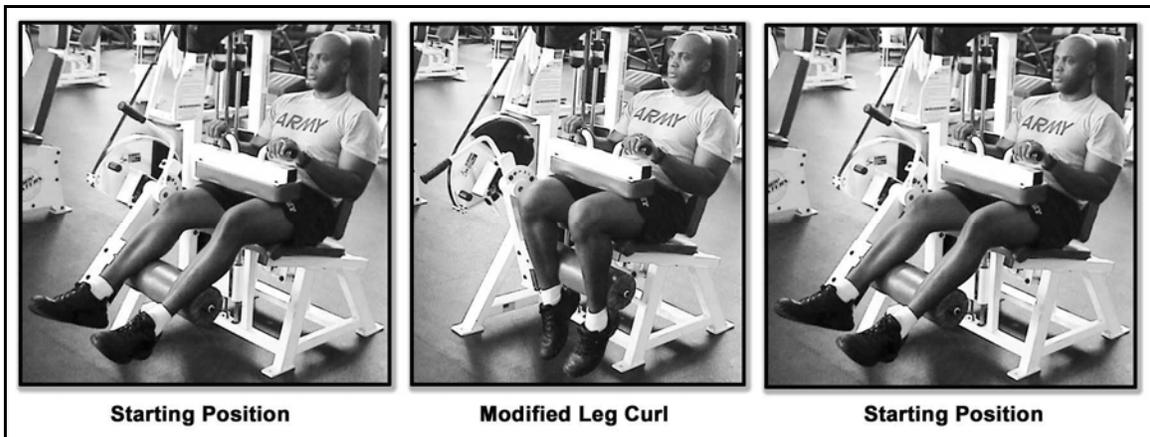
- Knees are aligned with the center axis of the machine.
- The leg pad contacts the lower legs just behind the ankles.
- The hips, low back, shoulders, and head are firmly against the seat back.
- Maintain a natural arch in the lower back
- Inhale on count 1 and exhale on count 2.

Precautions: Do not arch the back or allow the hips to rise off the seat. Do not grip the handgrips tightly.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 2A: THE MODIFIED LEG CURL (SEATED)

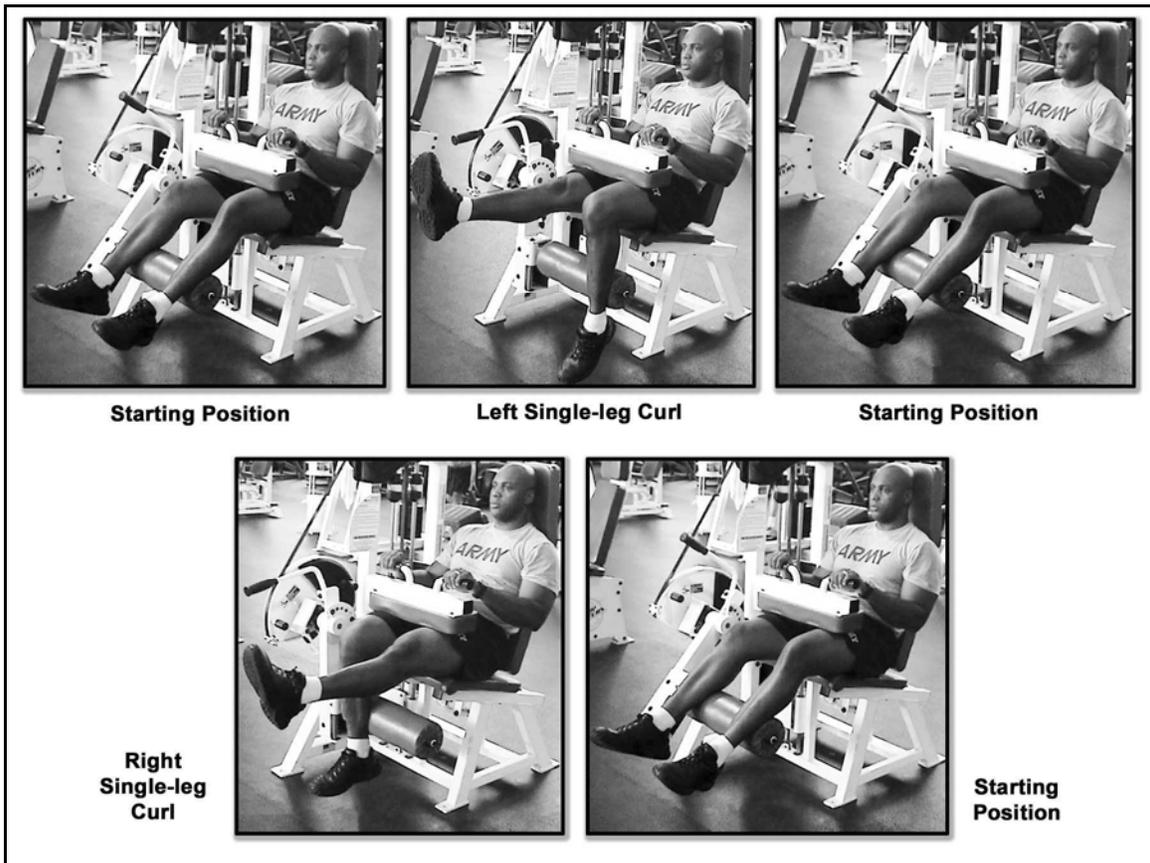
This exercise is performed the same as the Leg Curl. However, the range of motion is much less. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion and perform the exercise to standard. The Soldier may also employ the Single-leg Curl to maintain a heavy resistance on the good leg and/or to reduce the resistance on the injured leg.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 2B: THE SINGLE-LEG CURL (SEATED)

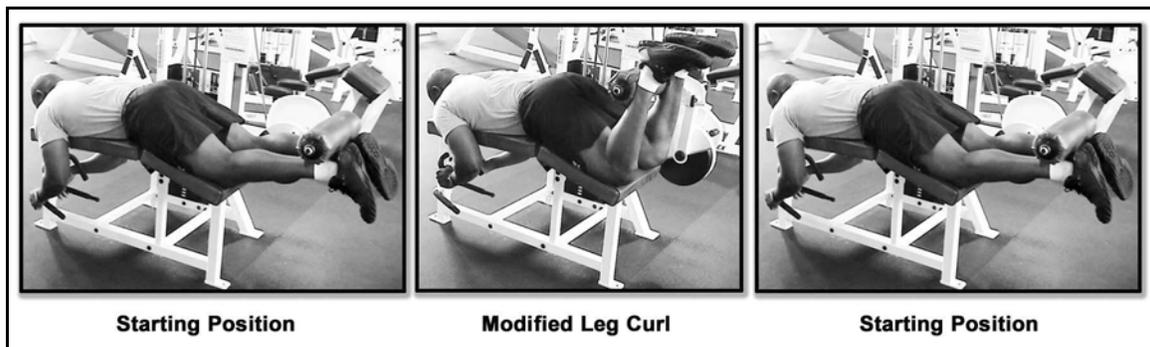
This exercise is performed similar to the Leg Curl, using only one leg at a time. The range of motion and resistance is decreased for the injured leg. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion. The Single-leg Curl is used to maintain a heavy resistance on the good leg and/or to reduce the resistance on the injured leg.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 2C: THE MODIFIED LEG CURL (PRONE)

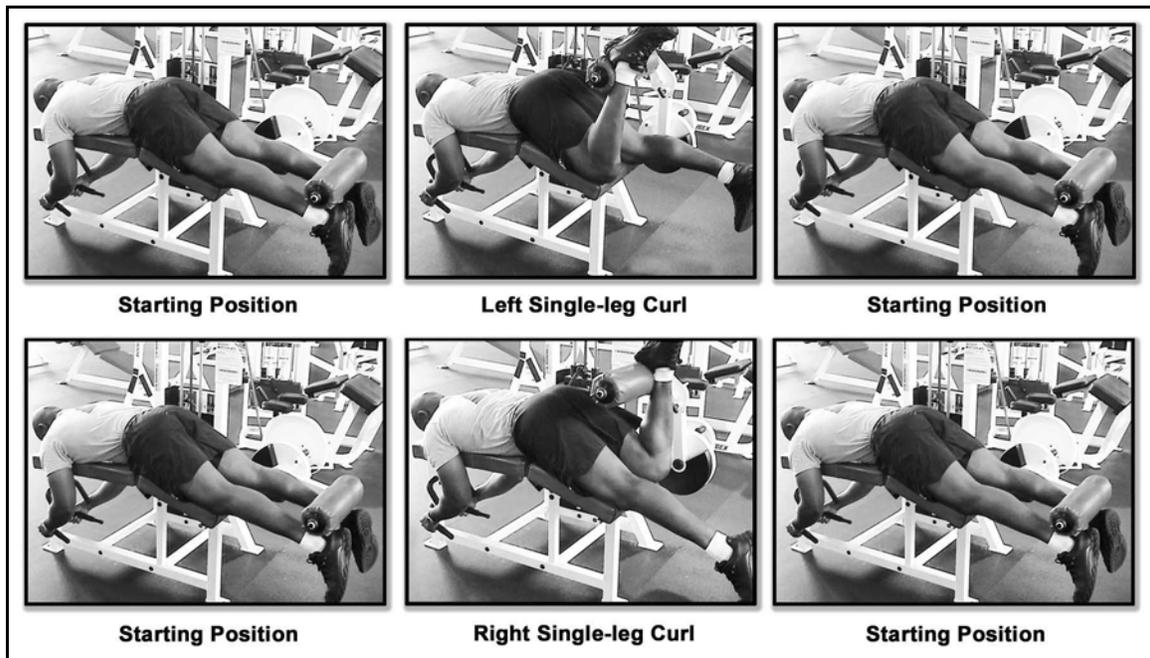
This exercise is performed the same as the Prone Leg Curl, however, the range of motion is much less. Soldiers with low back or hip injuries may prefer to use the Seated Leg Curl if it is available. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion and perform the exercise to standard. The Soldier may also employ the Single-leg Curl (Prone) to maintain a heavy resistance on the good leg and/or to reduce the resistance on the injured leg.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 2D: THE SINGLE-LEG CURL (PRONE)

This exercise is performed similar to the Leg Curl (Prone), using only one leg at a time. Soldiers with low back or hip injuries may prefer to use the Seated Leg Curl if it is available. The range of motion and resistance is decreased for the injured leg. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion. The Single-leg Curl is used to maintain a heavy resistance on the good leg and/or to reduce the resistance on the injured leg.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 3: THE HEEL RAISE

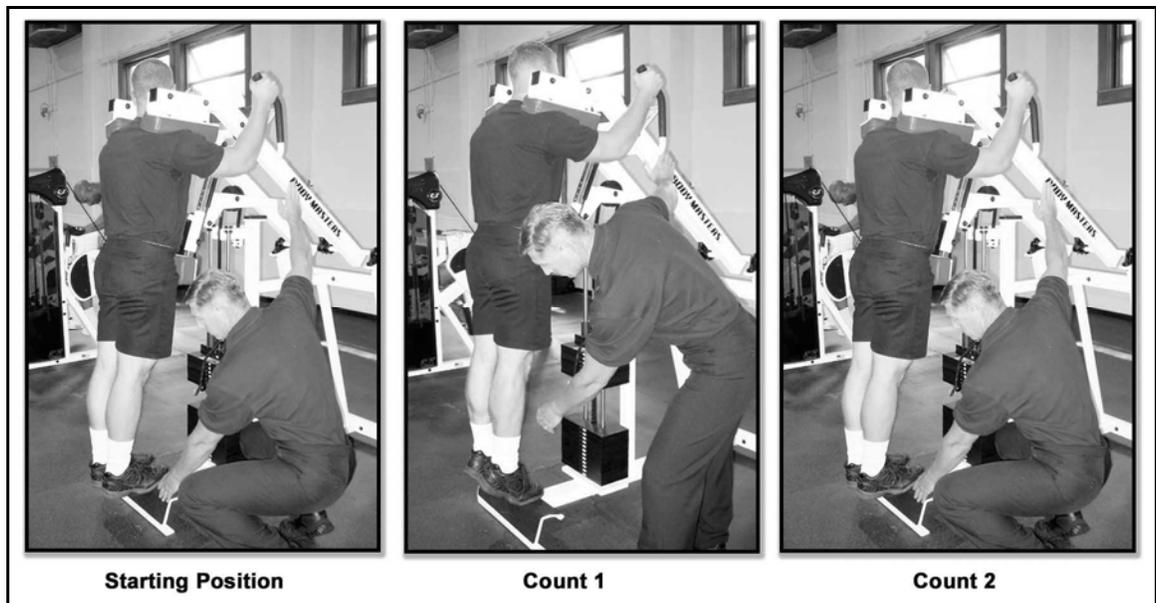
Purpose: This exercise develops strength in the back of the lower leg muscles.

Starting Position: Stand with the balls of the feet on the elevated platform, toes pointing straight ahead, feet aligned directly below the hips and the knees slightly flexed.

Cadence: SLOW

Count:

1. Raise the entire body slowly by pulling the heels up, maintaining a slight bend in the knees, and a natural arch in the low back.
2. Return to the starting position.



Check Points:

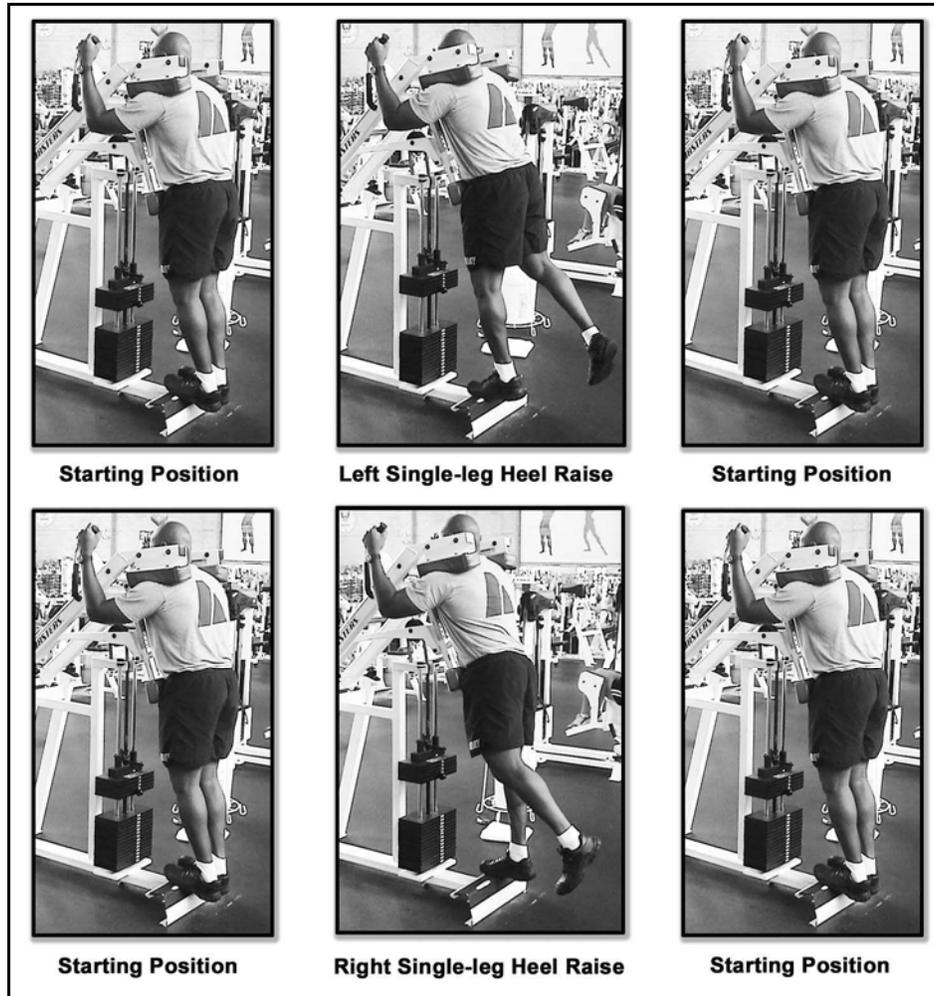
- Maintain a natural arch in the lower back.
- Keep the knees slightly flexed throughout the exercise.
- Maintain the head and neck in a neutral position , looking straight ahead.
- Keep the knees aligned over the feet
- Exhale on count 1 and inhale on count 2.

Precautions: Avoid flexing or extending the trunk. Do not allow the ankles to turn in or out.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 3A: THE SINGLE-LEG HEEL RAISE

This exercise is performed similar to the Heel Raise, using only one leg at a time. The range of motion and resistance is decreased for the injured leg. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion. The Single-leg is used to maintain a heavy resistance on the good leg and/or to reduce the resistance on the injured leg.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 4: THE CHEST PRESS

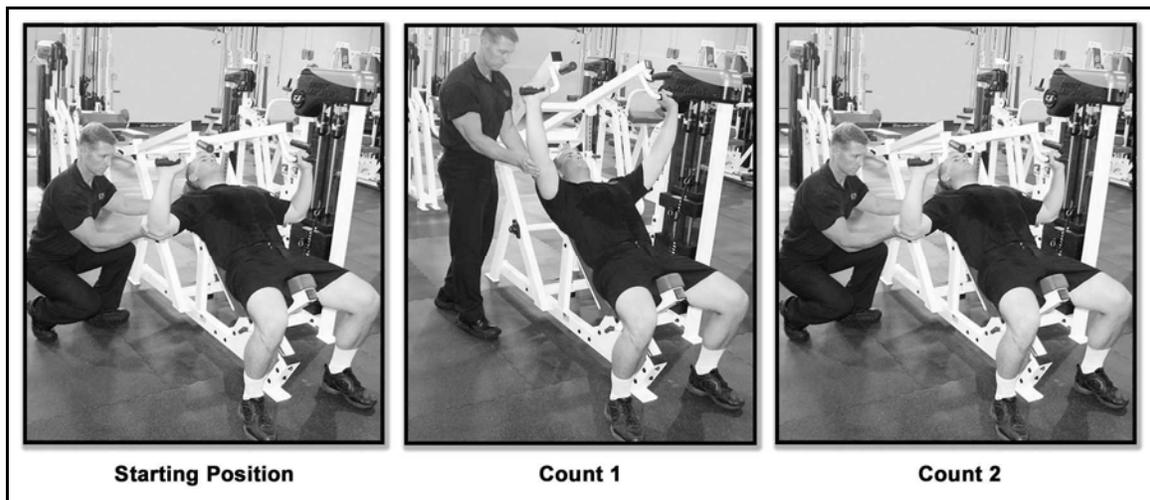
Purpose: This exercise develops strength in the arms, shoulders, and chest muscles.

Starting Position: Seated position with the feet firmly on the ground. The seat is adjusted so a 90-degree angle is formed between the upper and lower arms with the shoulders directly below the handgrips. The hips, low back, shoulders, and head are firmly against the seat back with the eyes looking straight ahead. A natural arch is maintained in the lower back. Select the appropriate weight and ensure the pin is secure in the weight stack.

Cadence: SLOW

Count:

1. Push upward until both arms are fully extended, but not locked.
2. Return to the starting position.



Check Points:

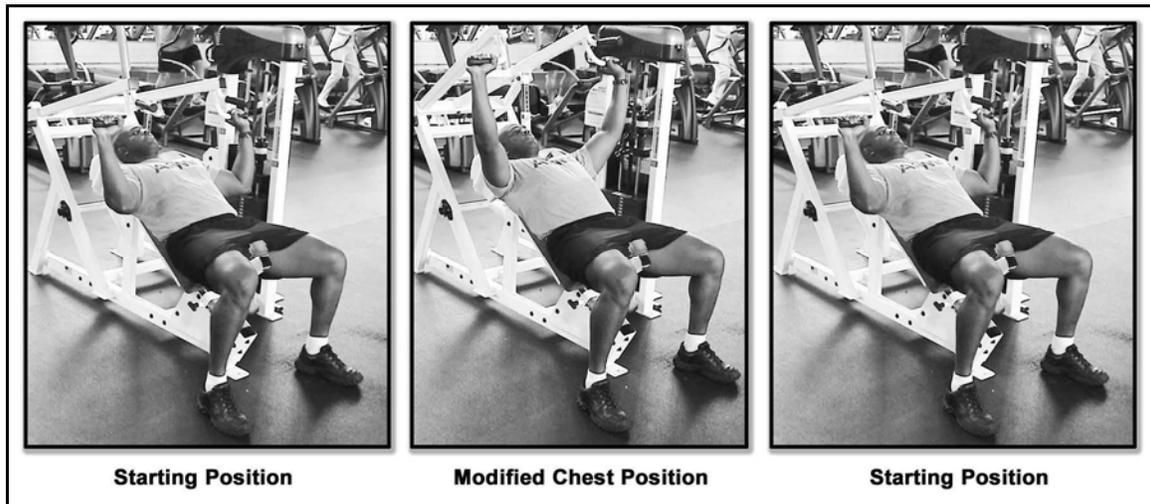
- ❑ Feet remain on the ground, with hips, back, shoulders, and head firmly on the bench.
- ❑ Maintain the head and neck in a neutral position, looking straight ahead.
- ❑ Exhale on count 1 and inhale on count 2.

Precautions: Do not arch the back or allow the hips to rise off the bench.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 4A: THE MODIFIED CHEST PRESS

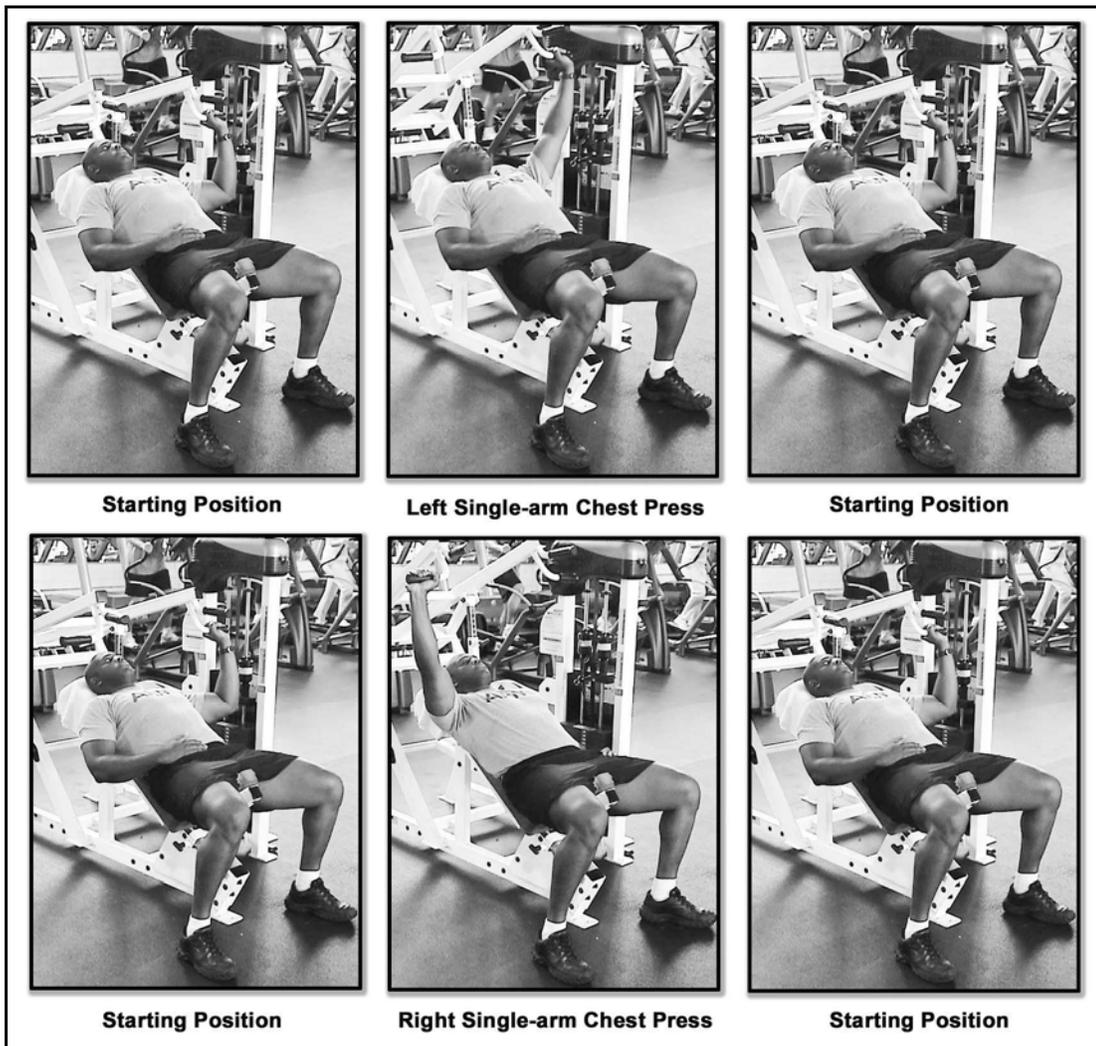
This exercise is performed the same as the Chest Press, but with much less range of motion. The elbows will not flex below 90 degrees as the resistance is lowered, nor will they fully straighten when the resistance is raised. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion and perform the exercise to standard. The Soldier may also employ the Single-arm Chest Press to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 4B: THE SINGLE-ARM CHEST PRESS

This exercise is performed similar to the Chest Press, using only one arm at a time. The range of motion and resistance is decreased for the injured side. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion. The Single-arm Chest Press is used to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 5: THE SEATED ROW

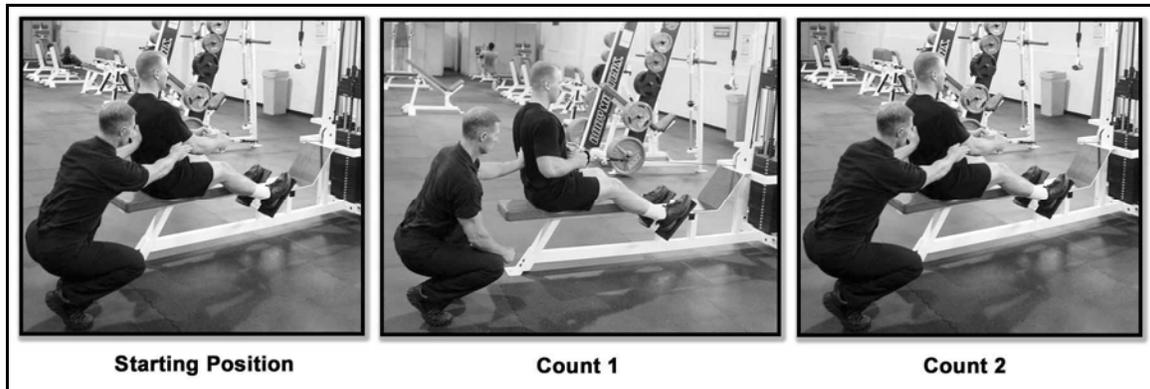
Purpose: This exercise develops strength in the arm and back muscles.

Starting Position: Seated position with the feet firmly planted on the foot supports. Lean forward and grasp the hand grips with the hands in a neutral closed grip. Sit erect so the upper body is perpendicular to the floor. Select the appropriate weight and ensure the pin is secure in the weight stack.

Cadence: SLOW

Count:

1. Simultaneously, bend the elbows and pull the handgrips to the chest or upper abdomen while keeping the trunk rigid and the back flat.
2. Return to the starting position by slowly extending the elbows.



Check Points:

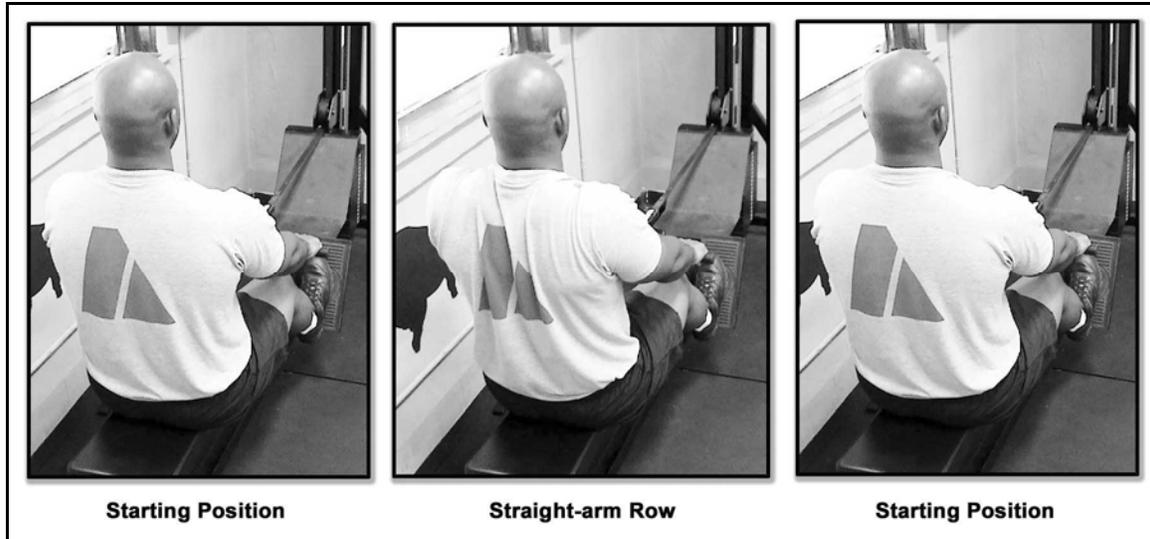
- Feet remain flat on the ground or foot supports.
- The trunk is erect and the back is flat.
- Maintain the head and neck in a neutral position, looking straight ahead or slightly downward.
- The arms are about parallel to the ground.
- On count 1 ensure the elbows point up and to the rear.
- Exhale on count 1 and inhale on count 2.

Precautions: Do not jerk the trunk to move the handgrips towards the chest. Maintain a flat back.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 5A: THE STRAIGHT-ARM SEATED ROW

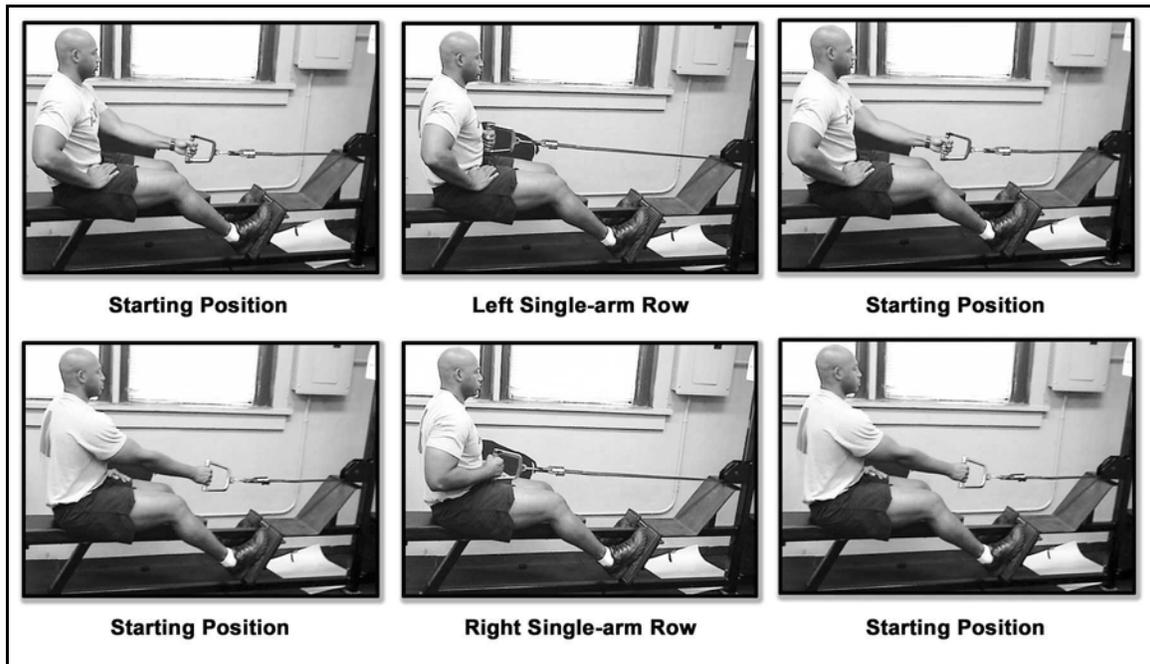
This exercise is performed the same as the Seated Row, however, the range of motion is much less. The elbows remain fully extended and the arms straight as the resistance is lowered and when the resistance is raised. As the Soldier's range of motion improves, he may employ the Single-arm Seated Row to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 5B: THE SINGLE-ARM SEATED ROW

This exercise is performed similar to the Seated Row, using only one arm at a time. The range of motion and resistance is decreased for the injured side. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The Single-arm Seated Row is used to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 6: THE OVERHEAD PRESS

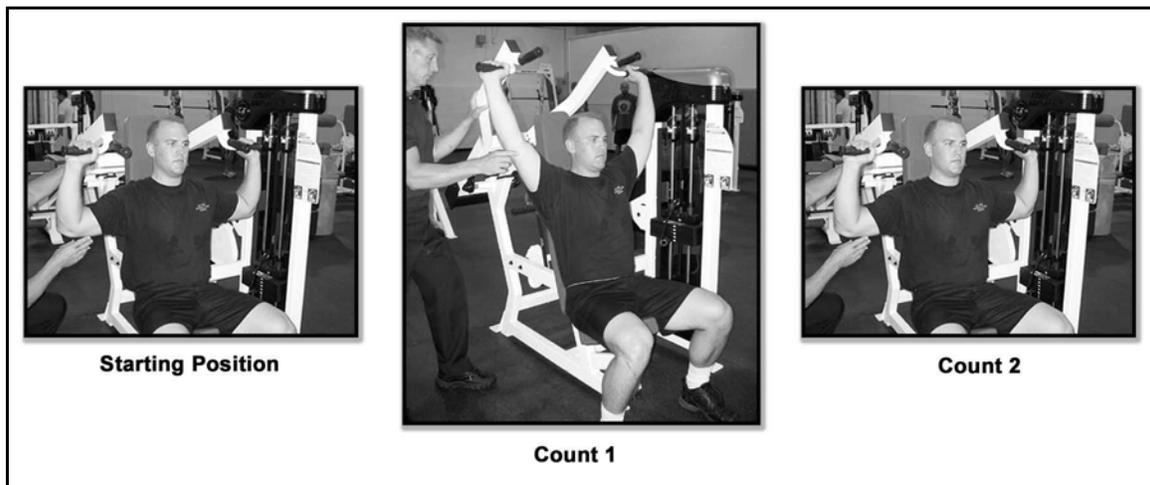
Purpose: This exercise develops strength in the arm and shoulder muscles.

Starting Position: Seated position with the feet firmly on the ground. The seat is adjusted so that a 90-degree angle is formed between the upper and lower arms with the shoulders directly below the handgrips. The hips, low back, shoulders and head are firmly against the seat back with the eyes looking straight ahead. A natural arch is maintained in the lower back. Select the appropriate weight and ensure the pin is secure in the weight stack.

Cadence: SLOW

Count:

1. Push upward until both arms are fully extended, but not locked.
2. Return to the starting position.



Check Points:

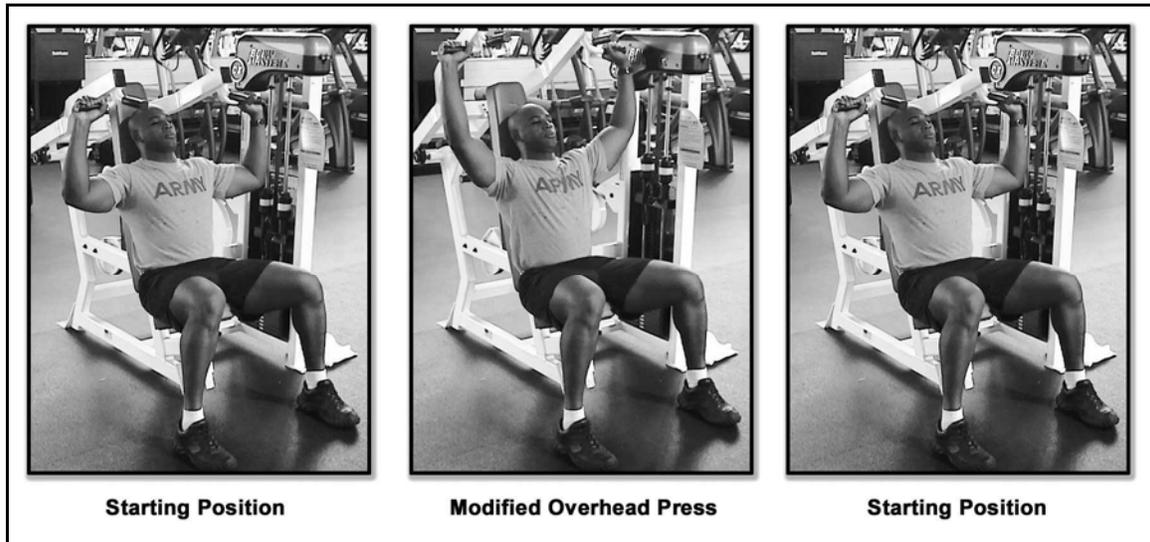
- ❑ Feet remain on the ground, with hips, back, shoulders, and head firmly on the bench.
- ❑ Maintain the head and neck in a neutral position, looking straight ahead.
- ❑ Exhale on count 1 and inhale on count 2.

Precautions: Do not arch the back or allow the hips to rise off the bench.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 6A: THE MODIFIED OVERHEAD PRESS

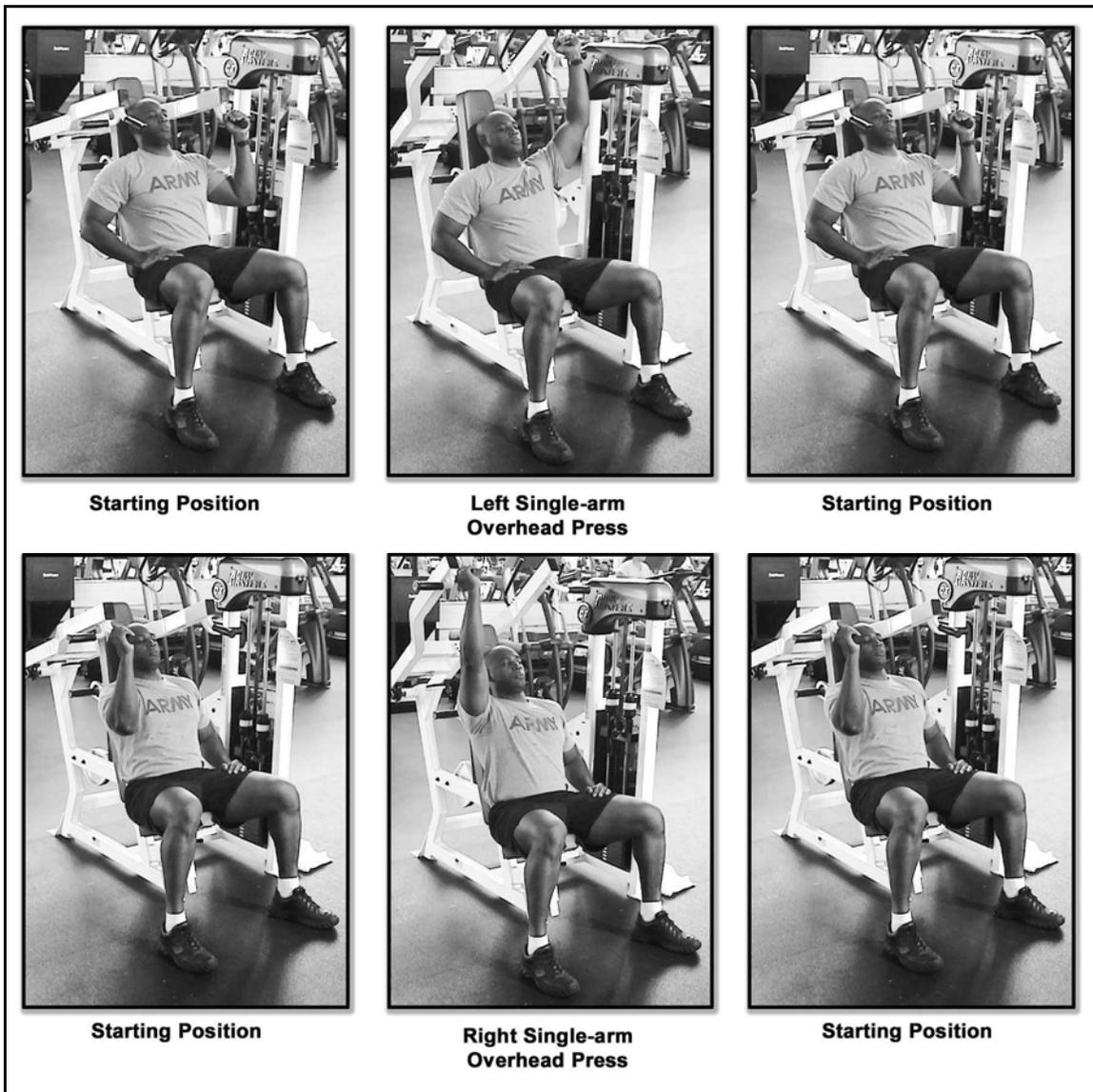
This exercise is performed the same as the Overhead Press, but with much less range of motion. The elbows will not flex below 90 degrees as the resistance is lowered, nor will they fully straighten when the resistance is raised. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion and perform the exercise to standard. The Soldier may also employ the Single-arm Overhead Press to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 6B: THE SINGLE-ARM OVERHEAD PRESS

This exercise is performed similar to the Overhead Press, using only one arm at a time. The range of motion and resistance is decreased for the injured side. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The Single-arm Overhead Press is used to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 7: THE LAT PULL-DOWN

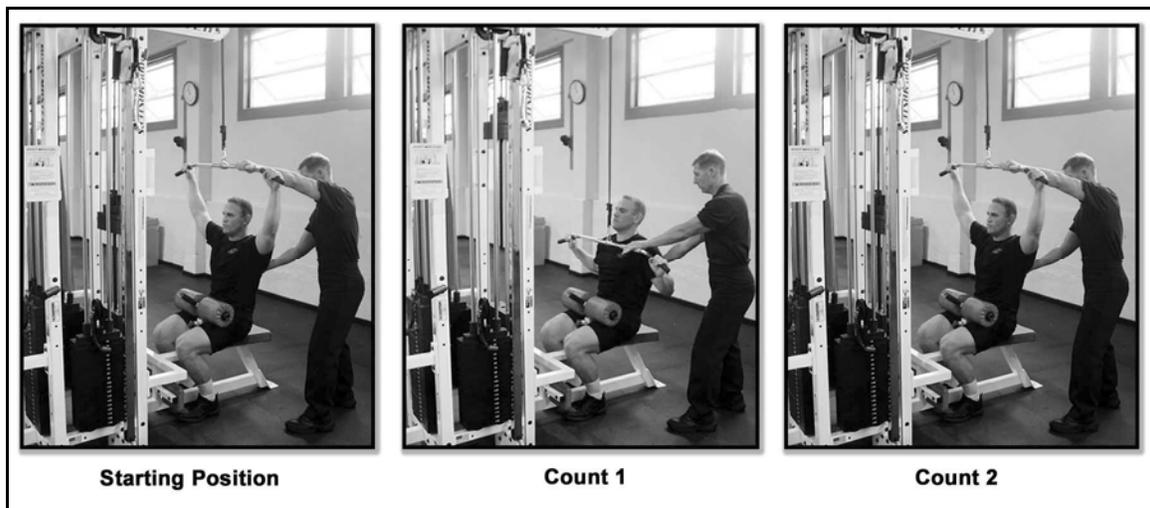
Purpose: This exercise develops strength in the arm and back muscles.

Starting Position: Select the appropriate weight and ensure the pin is secure in the weight stack before assuming the starting position. Sit erect and adjust the roller pad so it is firm against the upper thigh and hip. Grasp the bar with a closed, pronated grip and assume a seated position with the hips against the roller pad and the feet flat on the ground. The upper body is perpendicular to the floor.

Cadence: SLOW

Count:

1. Keeping the arms straight and elbows rotated out to the side and slightly flexed, simultaneously bend the elbows and pull bar toward the shoulders until the upper arms are parallel to the ground.
2. Return to the starting position by slowly extending the elbows.



Check Points:

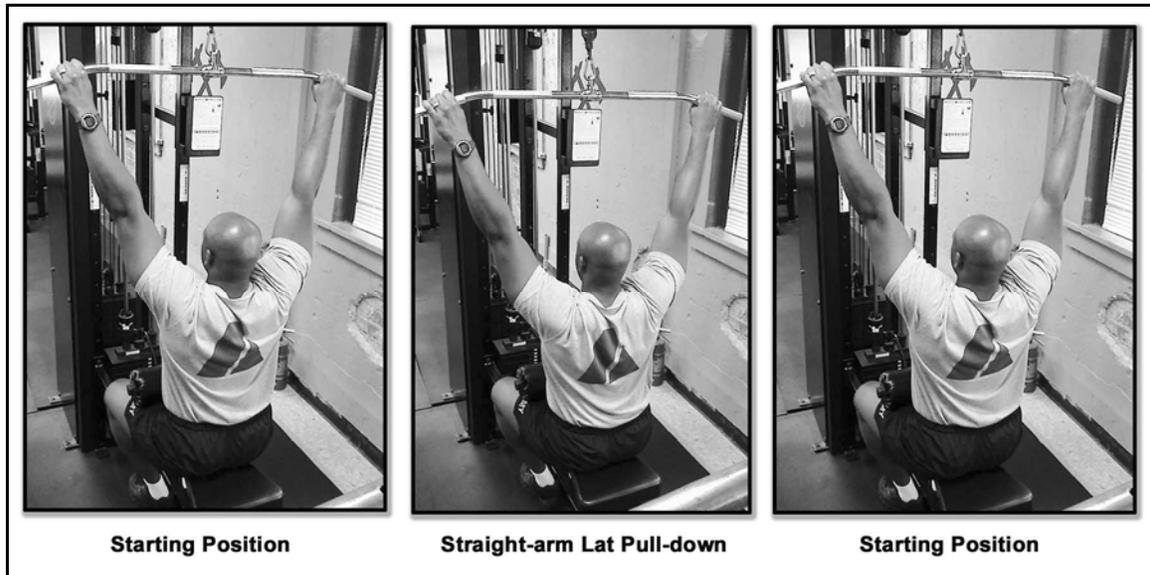
- ❑ Feet remain flat on the ground and the trunk is erect.
- ❑ Maintain a natural arch in the lower back.
- ❑ Maintain the head and neck in a neutral position, looking straight ahead or slightly upward.
- ❑ The arms straight and elbows rotated out to the side and slightly flexed and in direct line with the cable.
- ❑ Exhale on count 1 and inhale on count 2.

Precautions: Do not jerk the trunk or lean back to move the bar towards the shoulders.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 7A: THE STRAIGHT-ARM LAT PULL-DOWN

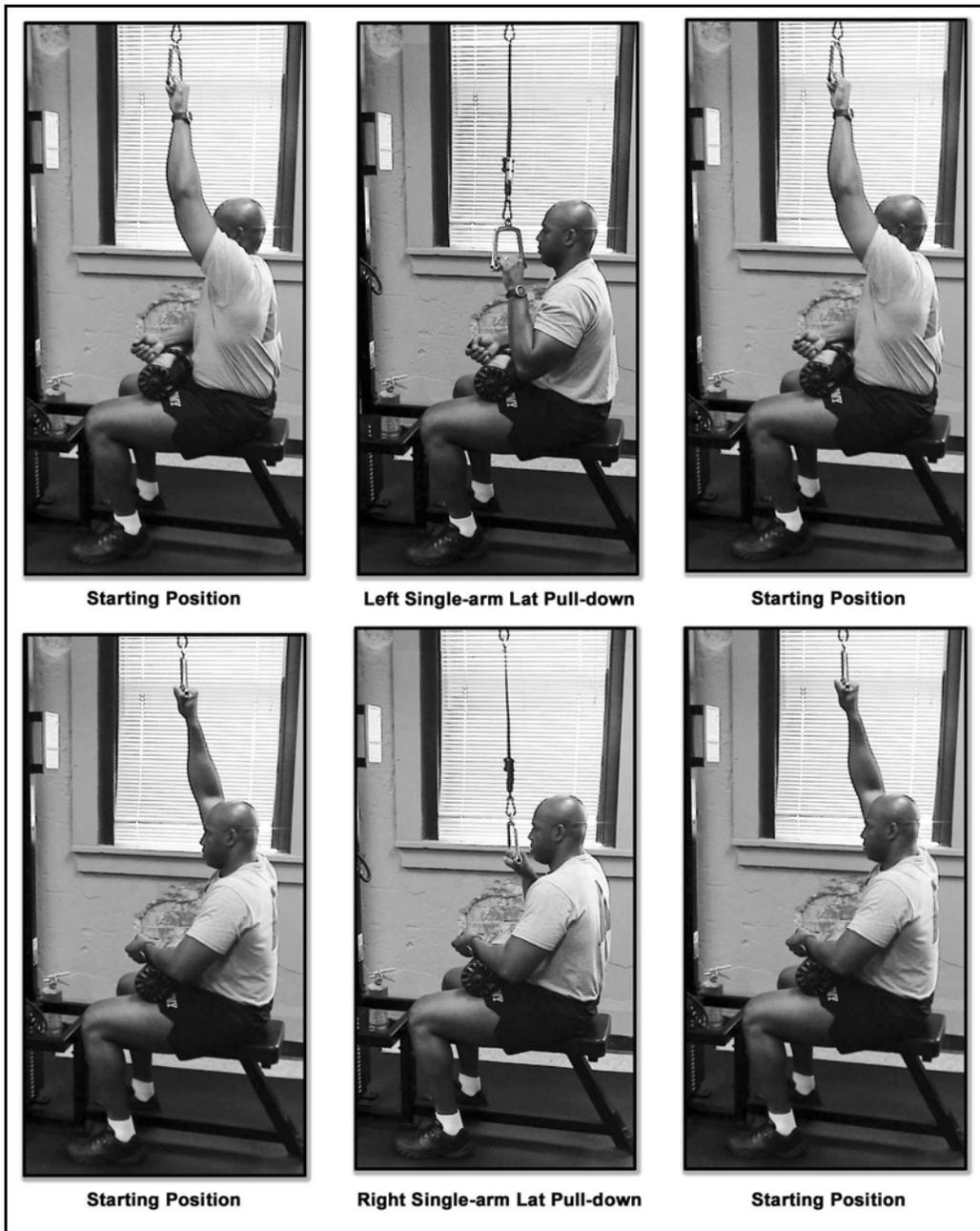
This exercise is performed the same as the Lat Pull-down, however, the range of motion is much less. The elbows remain fully extended and the arms straight as the resistance is lowered and when the resistance is raised. As the Soldier's range of motion improves, he may employ the Single-arm Lat Pull-down to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 7B: THE SINGLE-ARM LAT PULL-DOWN

This exercise is performed similar to the Lat Pull-down, using only one arm at a time. The range of motion and resistance is decreased for the injured side. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion. The Single-arm Lat Pull-down is used to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 8: THE LATERAL RAISE

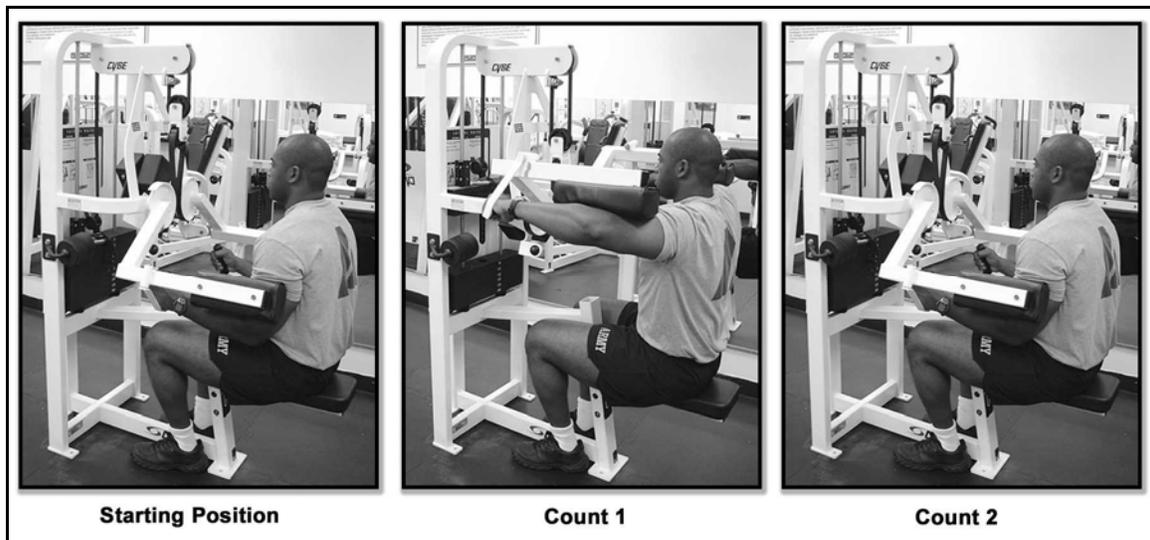
Purpose: This exercise develops strength in the shoulder and neck muscles.

Starting Position: Seated position with the feet firmly on the ground. The seat is adjusted so a 90-degree angle is formed between the upper and lower arms. The hips, lower back, shoulders, and head are firmly against the seat back with the eyes looking straight ahead. A natural arch is maintained in the lower back. Select the appropriate weight and ensure the pin is secure in the weight stack.

Cadence: SLOW

Count:

1. Raise upward until both arms are parallel to the ground.
2. Return to the starting position.



Check Points:

- ❑ Feet remain on the ground, with hips, back, shoulders and head firmly on the bench.
- ❑ Maintain the head and neck in a neutral position, looking straight ahead.
- ❑ Exhale on count 1 and inhale on count 2.

Precautions: Do not arch the back or allow the hips to rise off the bench. Do not raise arms above parallel to the ground.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 8A: THE SINGLE-ARM LATERAL RAISE

This exercise is performed similar to the Lateral Raise, using only one arm at a time. The range of motion and resistance is decreased for the injured side. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The Single-arm Lateral Raise is used to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 9: THE TRICEPS EXTENSION

Purpose: This exercise develops strength in the upper arm muscles.

Starting Position:

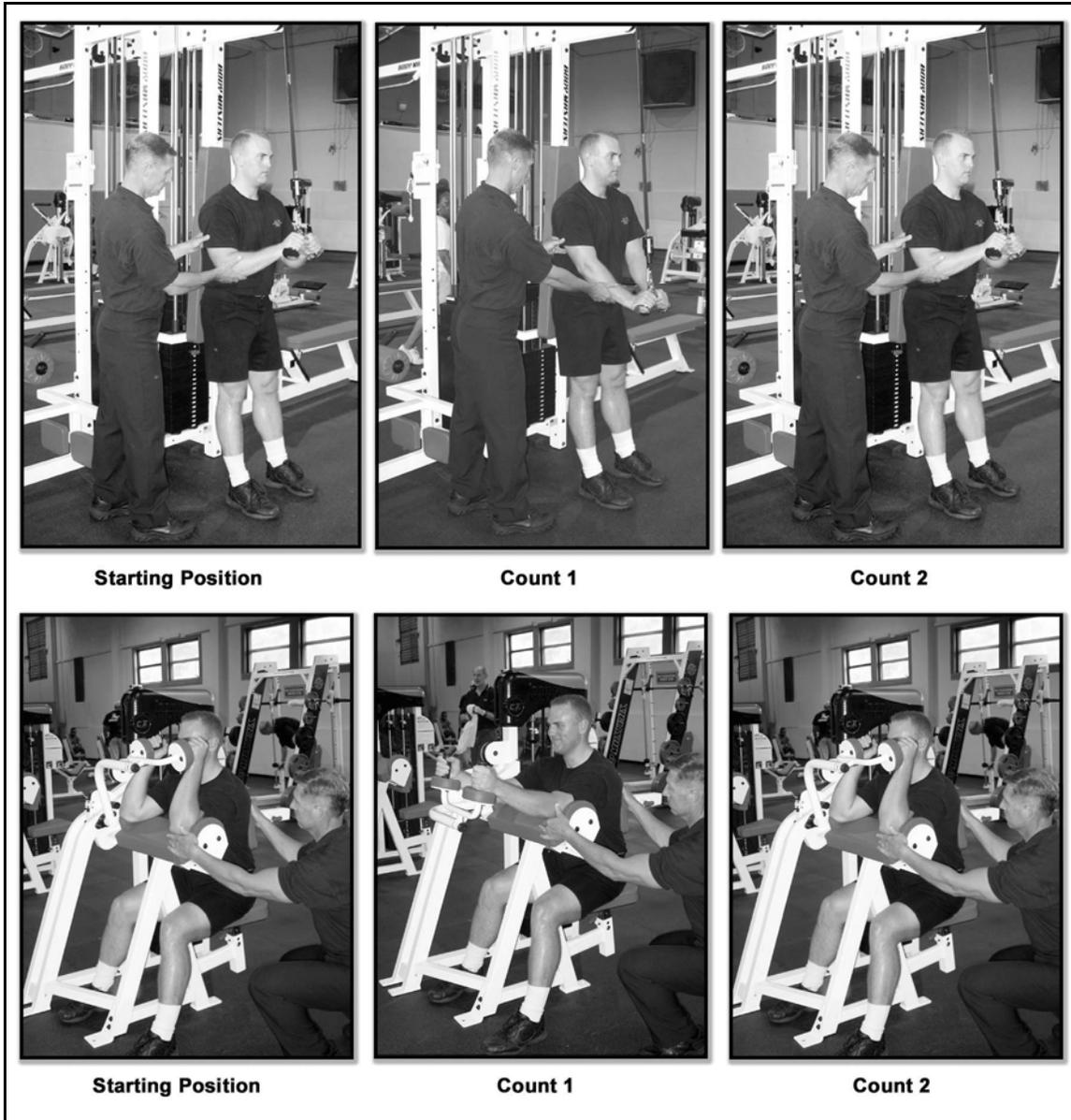
Standing: Straddle stance with a 90-degree angle formed at the upper and lower arms. Select the appropriate weight and ensure the pin is secure in the weight stack. Maintain an erect position, eyes looking straight ahead, grasping the bar with a closed, pronated grip.

Seated: Seated position with the feet firmly on the ground. The seat is adjusted so a 90-degree angle is formed between the upper and lower arms, with elbows shoulder-width apart on the supporting pad, with hands in a closed-grip. The hips and low back are firmly against the seat back with the eyes looking straight ahead. A natural arch is maintained in the lower back. Select the appropriate weight and ensure the pin is secure in the weight stack.

Cadence: SLOW

Count:

1. Push downward until both arms are fully extended, but not locked.
2. Return to the starting position.



Check Points:

- ❑ Feet remain on the ground, with hips and back firmly on the bench during seated triceps extension.
- ❑ Maintain the head and neck in a neutral position, looking straight ahead.
- ❑ Exhale on count 1 and inhale on count 2.

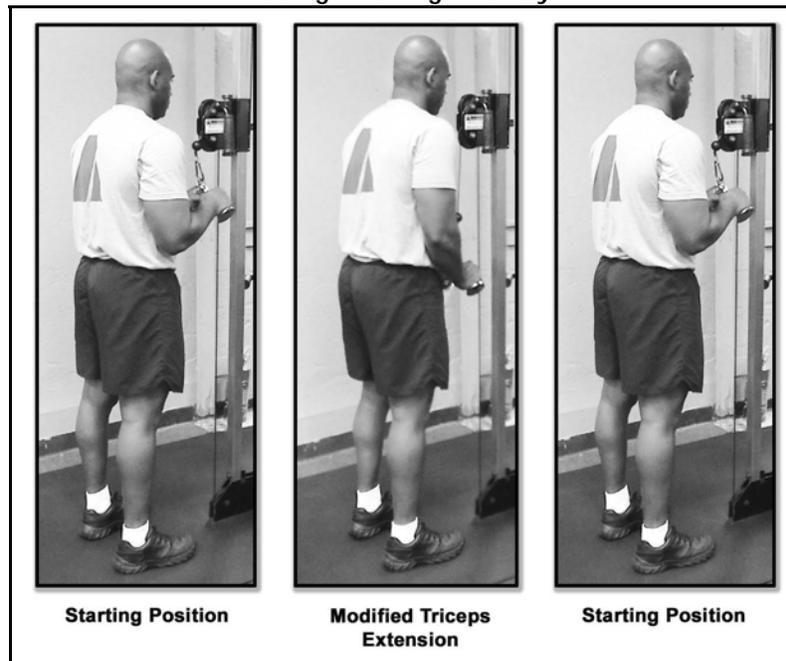
Precautions: Do not arch the back or allow the hips to rise off the bench during seated exercise. Do not lean forward while performing standing triceps extension.

STRENGTH TRAINING MACHINE DRILL 1

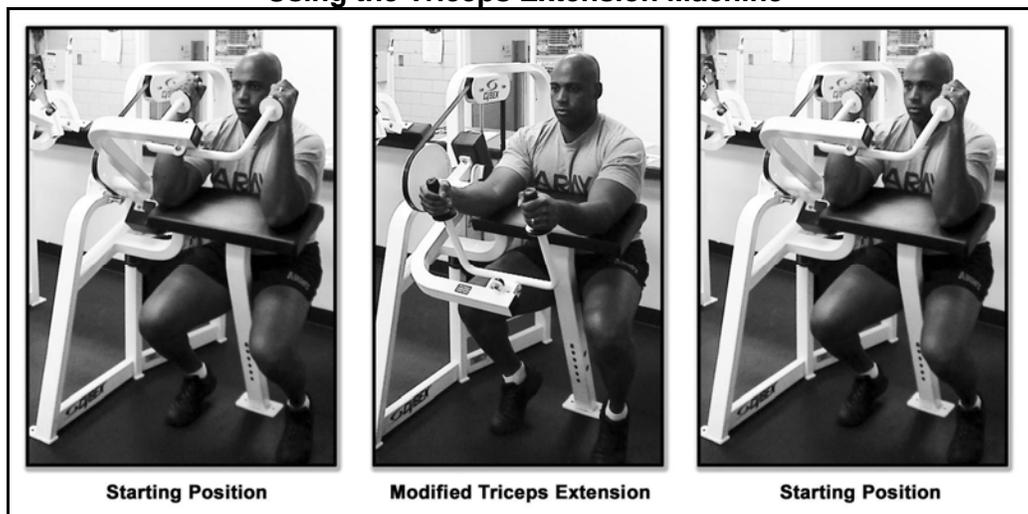
MODIFIED EXERCISE 9A: THE MODIFIED TRICEPS EXTENSION

This exercise is performed the same as the Triceps Extension, but the range of motion is much less. The elbows will not fully flex as the resistance is lowered, nor will they fully straighten when the resistance is raised. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion and perform the exercise to standard. The Soldier may also employ the Single-arm Triceps Extension to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.

Using The High Pulley



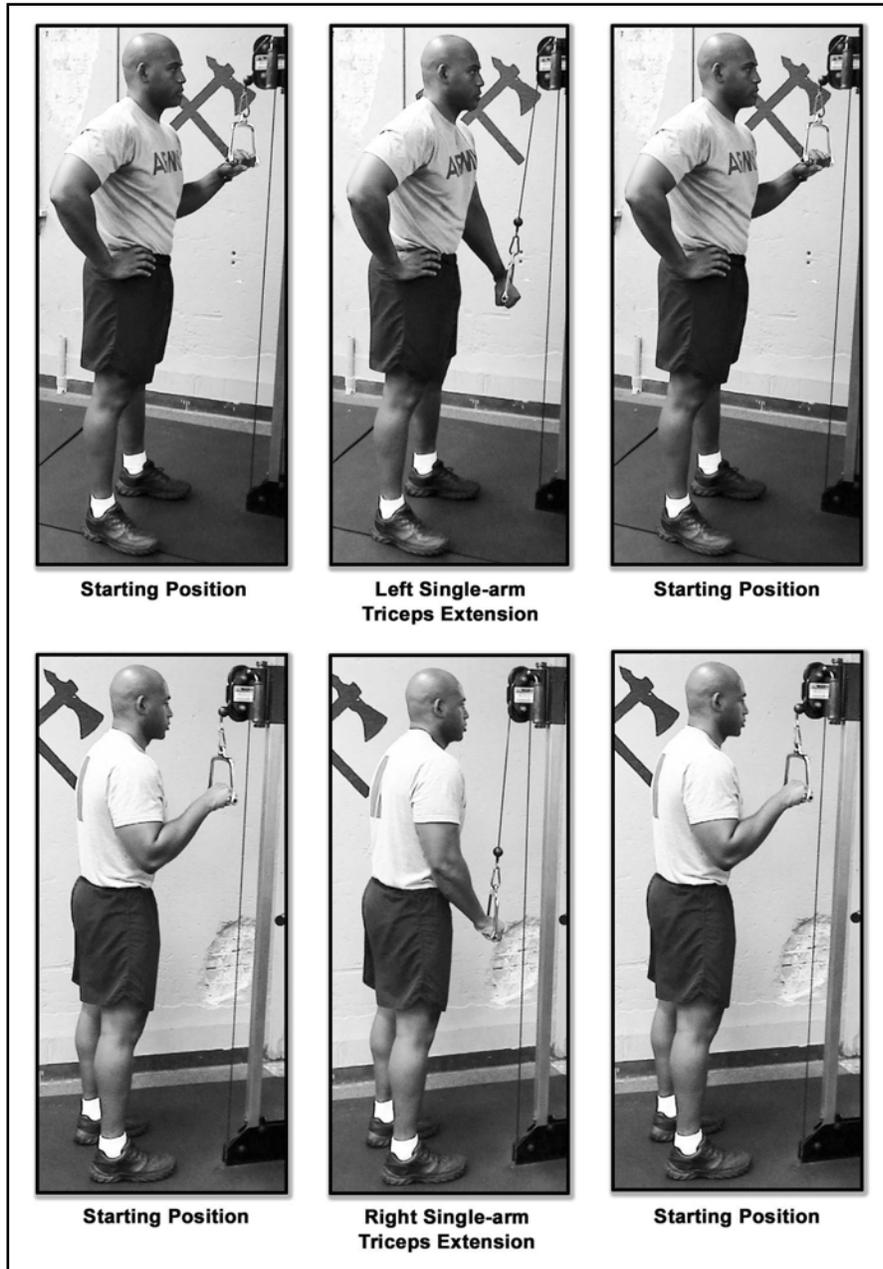
Using the Triceps Extension Machine



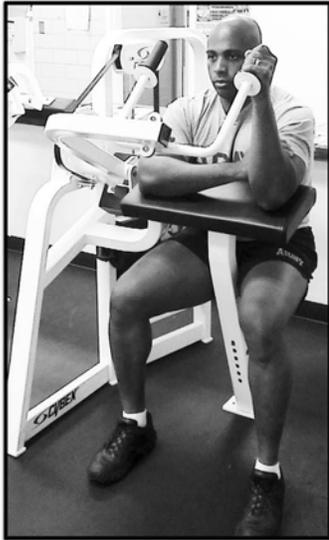
STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 9B: THE SINGLE-ARM TRICEPS EXTENSION

This exercise is performed similar to the Triceps Extension, using only one arm at a time. The range of motion and resistance is decreased for the injured side. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion. The Single-arm Triceps Extension is used to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



Using the Triceps Extension Machine



Starting Position



**Left Single-arm
Triceps Extension**



Starting Position



Starting Position



**Right Single-arm
Triceps Extension**



Starting Position

STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 10: THE BICEPS CURL

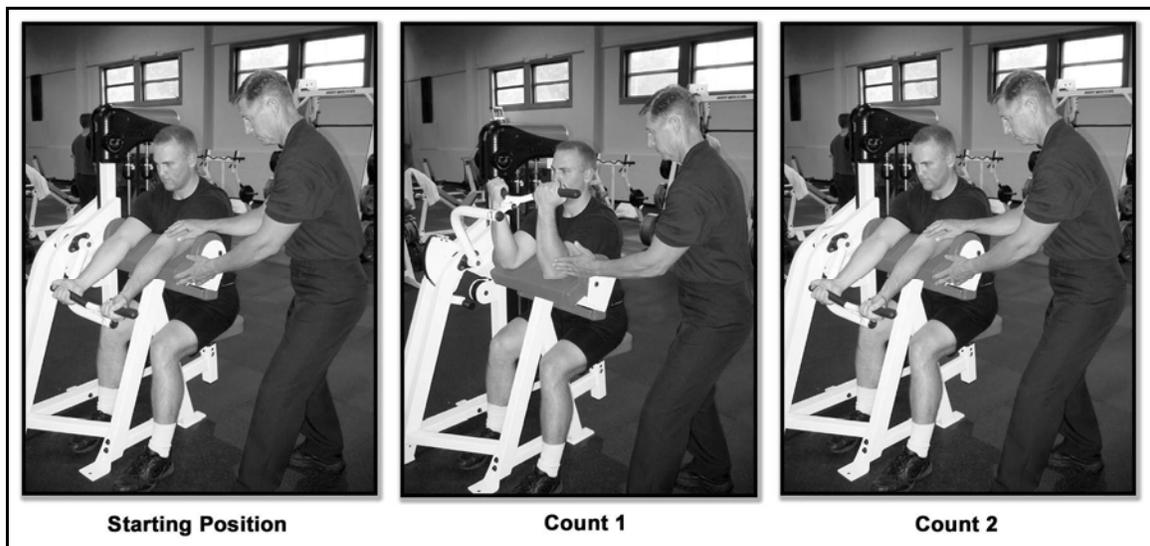
Purpose: This exercise develops strength in the upper arm muscles.

Starting Position: Seated position with the feet firmly on the ground. The seat is adjusted so the arms are straight, with elbows shoulder-width apart. The back of the upper arms are on the supporting pad with hands in a closed-grip. The hips and low back are firmly against the seat back with the eyes looking straight ahead. A natural arch is maintained in the lower back. Select the appropriate weight and ensure the pin is secure in the weight stack.

Cadence: SLOW

Count:

1. Pull upward until both arms are fully flexed.
2. Return to the starting position.



Check Points:

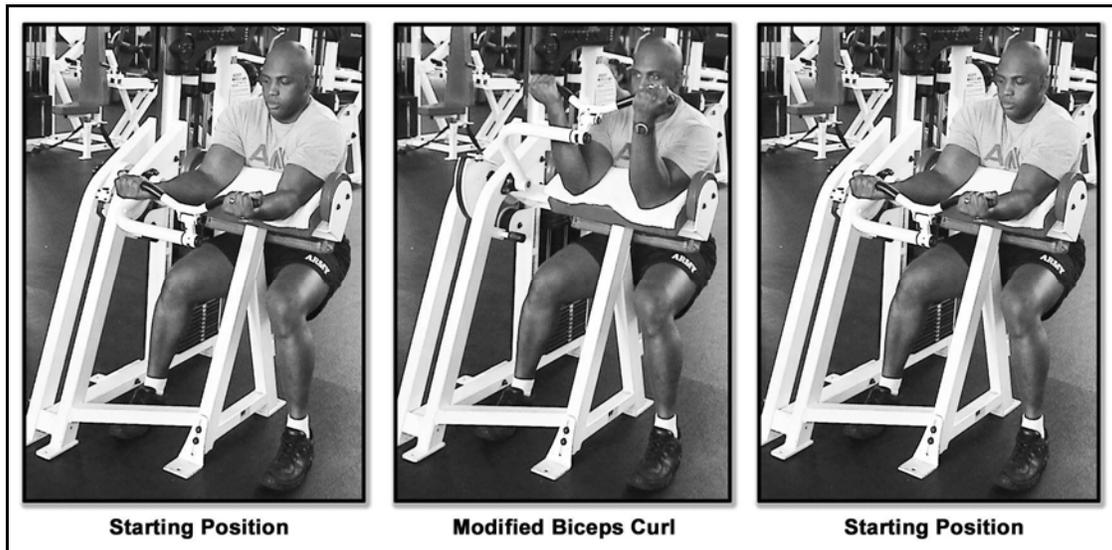
- ❑ Feet remain on the ground, with hips and back firmly on the bench during seated triceps extension.
- ❑ Maintain the head and neck in a neutral position, looking straight ahead.
- ❑ Exhale on count 1 and inhale on count 2.

Precautions: Do not arch the back or allow the hips to rise off the bench. Do not arch backward while performing the biceps curl.

STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 10A: THE MODIFIED BICEPS CURL

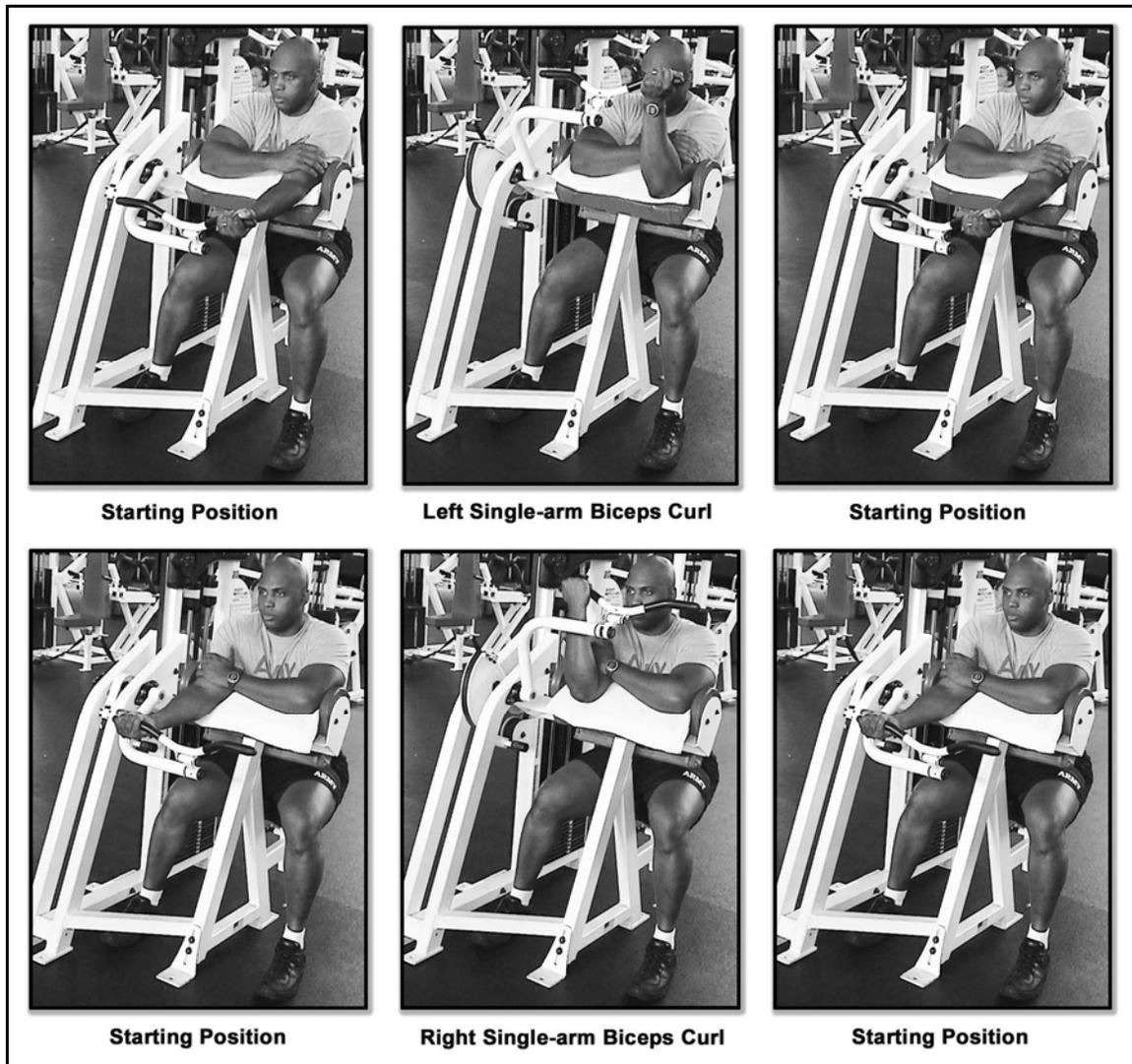
This exercise is performed the same as the Biceps Curl, but the range of motion is much less. The elbows will not fully flex as the resistance is lowered, nor will they fully straighten when the resistance is raised. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion and perform the exercise to standard. The Soldier may also employ the Single-arm Biceps Curl to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

MODIFIED EXERCISE 10B: THE SINGLE-ARM BICEPS CURL

This exercise is performed similar to the Biceps Curl, using only one arm at a time. The range of motion and resistance is decreased for the injured side. As the Soldier's condition improves, the range of motion may gradually increase until the exercise is performed to standard. The resistance should not be increased until the Soldier can move through the full range of motion. The Single-arm Biceps Curl is used to maintain a heavy resistance on the good side and/or to reduce the resistance on the injured side.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 11: TRUNK FLEXION

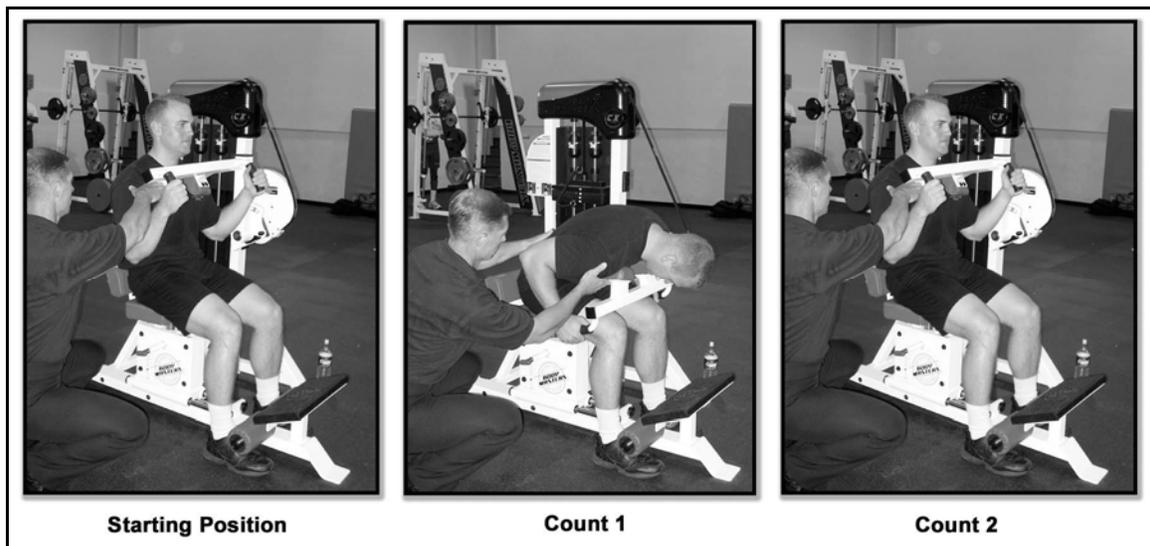
Purpose: This exercise develops strength in the abdominal muscles.

Starting Position: Seated position with the feet firmly on the ground. Select the appropriate weight and ensure the pin is secure in the weight stack. The seat is adjusted so the chest pad is located on the upper chest, below the collarbone. The elbows are shoulder-width apart and bent at 90-degrees, with hands in a closed-grip. The hips and low back are firmly against the seat back with the eyes looking straight ahead.

Cadence: SLOW

Count:

1. Bend forward, flexing the trunk and bringing the chest pad to the thighs.
2. Return to the starting position.



Check Points:

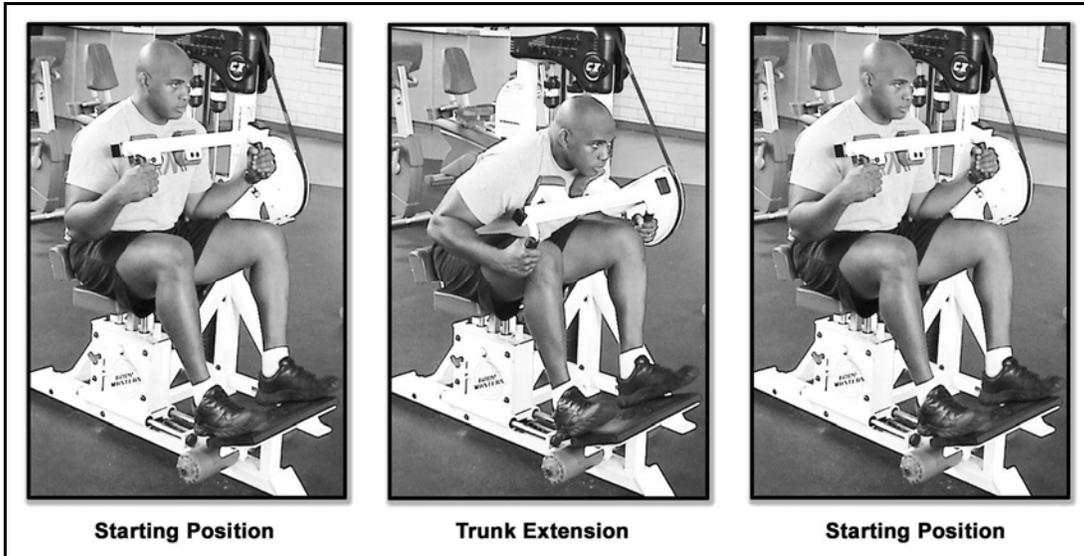
- Feet remain on the ground, with hips and back firmly on the bench.
- Maintain the head and neck in a neutral position.
- Exhale on count 1 and inhale on count 2.

Precautions: Do not jerk into position or allow the hips to rise off the bench.

STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 11A: MODIFIED TRUNK FLEXION

Physical Profiles may limit the range of motion at which Soldiers are able to safely perform trunk flexion exercises. The weight load should be low and the range of motion of the movements should be within the comfort zone of the Soldier. Gradually increase the weight load and range of motion as tolerated until the exercise can be performed to standard.



STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 12: TRUNK EXTENSION

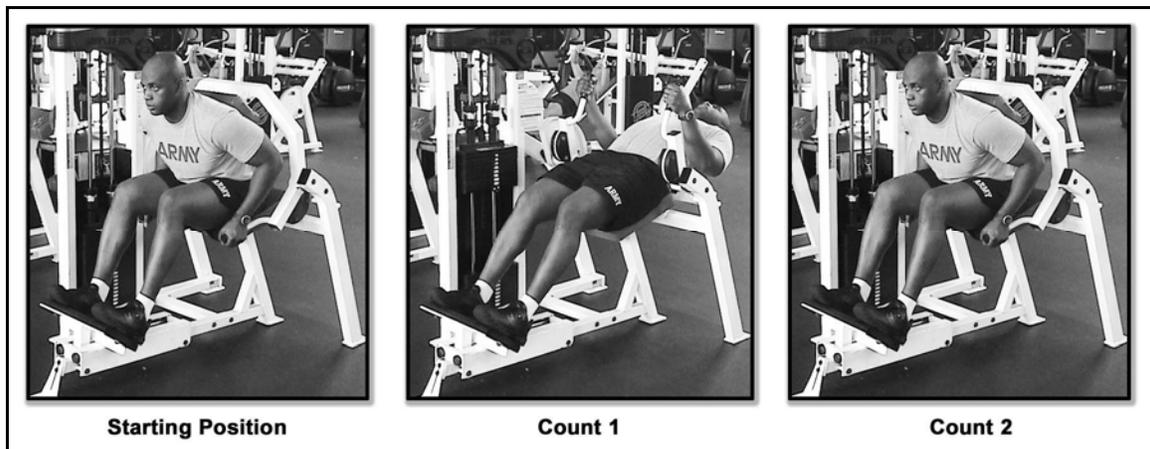
Purpose: This exercise develops strength in the low back muscles.

Starting Position: Sit in the machine, leaning slightly forward, with the back firmly against the padded lever arm. Select the appropriate weight and ensure the pin is secure in the weight stack. The hands grip the support bars using a neutral, closed-grip. The head is in a neutral position with eyes looking straight ahead.

Cadence: SLOW

Count:

1. Raise the upper body and continue extending the trunk, moving to the supine position.
2. Return to the starting position.



Check Points:

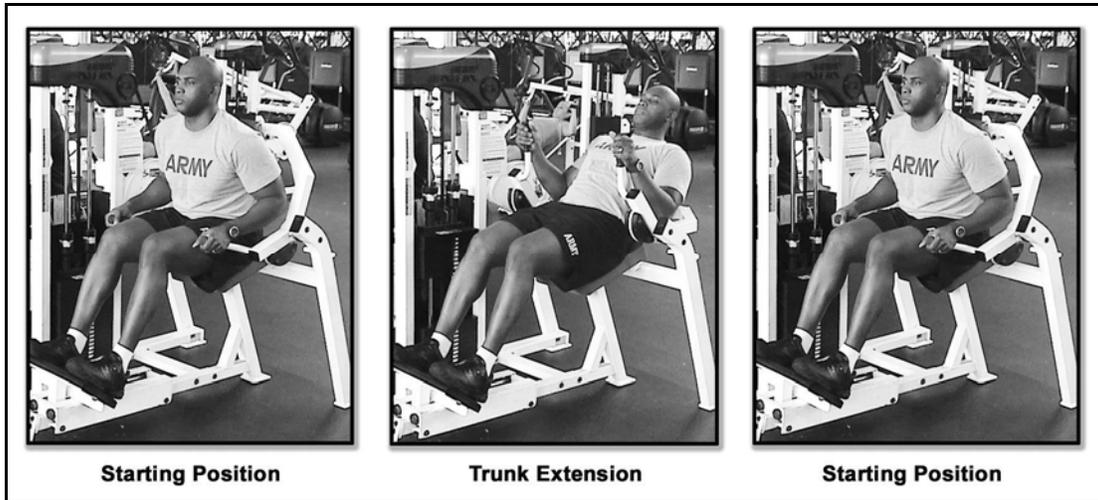
- Maintain the head and neck in a neutral position.
- Exhale on count 1 and inhale on count 2.

Precautions: Do not jerk into position. The hips and low back remain in contact with the pads throughout the exercise.

STRENGTH TRAINING MACHINE DRILL 1

EXERCISE 12A: MODIFIED TRUNK EXTENSION

Physical Profiles may limit the range of motion at which Soldiers are able to safely perform trunk extension exercises. The weight load should be low and the range of motion of the movements should be within the comfort zone of the Soldier. Gradually increase the weight load and range of motion as tolerated until the exercise can be performed to standard.



Appendix C: Core Strengthening

Abdominal Bracing: During all core exercises you should contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

The core muscles should be considered with a 360° concept in mind. The abdominal and back muscles form a supportive ring around your spine and they all must be trained. The shoulder blade, pelvic, and buttock muscles also serve to stabilize the trunk to assist in effective movements of the arms and legs.

When performing core strength training, exercises should be selected that provide a workout for the front, sides, back, and shoulders. This will include the abdominals, lower spine muscles, pelvic and buttock muscles, and shoulder blade stabilizers.

If any exercise increases their pain, the Soldier should reduce the range of movement, duration, or repetitions until the exercise is no longer painful. If the exercise is still painful, skip that exercise.

Forward Plank (FRONT)



Cadence: None. This exercise is done for time.
Start Position: Start by lying on your stomach and propped on elbows with forearms resting on the ground. Contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

Count: NA

- Raise body up on elbows and toes so that it forms a straight line from the shoulders to the ankles. Hold for a goal of 15 seconds working up to 3 minutes.
- Don't sag in the middle; either keep your back straight or push your hips upward.
- A harder variation is to move your arms forward. Another variation is to lift one foot barely off the ground. Switch legs halfway through the time.
- Choose the most difficult variety of the plank that you can maintain for the standard time listed.

Crunches (FRONT)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Slow

Start Position: On your back with your knees bent and your feet flat on the ground, arms crossed over your chest. Contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

- Count:
1. Lift your shoulder blades off the ground just until the tips of your shoulder blades come off the ground.
 2. Return to the start position.
 3. Repeat count one.
 4. Repeat count two.

Double Crunches (FRONT)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Moderate

Start Position: On your back with your knees bent and your feet flat on the ground, arms crossed over your chest. Contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

Count:

1. Lift your feet slightly off the ground and your shoulder blades off the ground just until the tips of your shoulder blades come off the ground.
2. Tuck your legs so that your hips and knees are at right angles. Bring your torso up higher so that your elbows touch your thighs.
3. Return to count one position.
4. Return to the start position.

Bent Leg Hold (FRONT)



Cadence: None. This exercise is done for time.

Start Position: Lying on the back, knees bent, feet on the ground, and placing both hands underneath the small of your back, not your pelvis. Contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

Count: NA

- Raise your feet off the ground until both hips and knees are flexed to 90°.
- Flatten your lower back toward the ground.
- Keep the same amount of pressure from your back on your hands and slowly lower and straighten your legs.
- As soon as you feel less pressure on your hands, bring the legs slightly back and hold for 15 seconds working up to 60 seconds.

Side Plank Progression (SIDE)



Cadence: None. This exercise is done for time.

Start position: Make your body into a perfect L shape with your knees, hips, and shoulders making a perfect line and your feet behind you.

Count: NA



- Come up on your elbow and contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.
- Hold for a goal of 15 seconds to 90 seconds, each side.
- To add challenge, perform the same exercise with your legs straight.



- To add more challenge, perform the same exercise with your legs straight and your elbow straight.



- To add even more challenge, cross the lower foot over the top foot. Perform the same exercise keeping the top leg straight and your elbow straight.



- Another challenging variation is to perform the same exercise with your legs straight and your elbow straight, then raise one leg or straighten the other arm out above you.



- For the greatest challenge, perform the star position. Lift the top leg and straighten the other arm out above you.



- Choose the most difficult variety of the side plank that you can maintain correctly for 15 seconds working up to 90 seconds.

Side Sit-Ups (SIDE)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Slow.

Start Position: Lying on your back with knees bent, lower knees to left side (go to right side on second set of the exercise). Arms can be supporting your neck/head or crossed over your chest.

Count:

1. Lift your head and shoulder blades off the ground, just until the tip of your right shoulder blade comes off the ground (left shoulder blade for the second set of the exercise).
2. Return to the start position.
3. Repeat count one.
4. Repeat count two.

Bent-Leg Body Twist (SIDE)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Slow.

Start Position: On your back with your arms outstretched and your knees and hips bent at right angles (feet off the ground). Contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath. Keep your knees close together throughout the exercise.

Count:

1. Rotate the legs to the left.
2. Return to the start position.
3. Repeat count one to the right.
4. Return to the start position.

Shoulder Bridge Progression (BACK)



Cadence: None. This is an exercise done for time.

Start Position: Lying on your back with your knees bent. Contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

Count: NA

- Bring your hips up until the trunk and thighs form a generally straight line. Try to hold for 15 seconds to 3 minutes. Additional challenge can be achieved by lifting either your toes or heels from the ground.
- To add challenge, start in the same position as above, bring your hips up, and straighten one leg. Keep your hips level (don't let one hip dip down lower). Try to hold for 15 seconds to 90 seconds. Repeat by lifting the other leg.



- To add more challenge, start in the same position as above, bring your hips up, and extend your arms above your head and hold them 3-6 inches from the ground. You can also straighten one leg. Try to hold for 15 seconds to 90 seconds. Repeat by lifting the other leg.

Quadruplex (BACK)



Cadence: None. This is an exercise done for time.

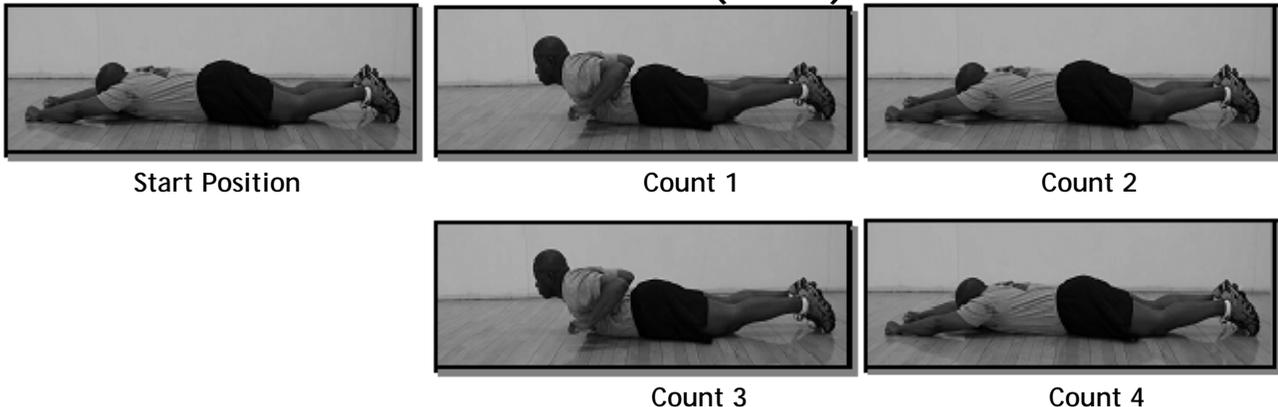
Start Position: The starting position is on the hands and knees with the back flat.

Contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

Count: NA

- Straighten the left leg to the rear and the right arm to the front.
- Do not let trunk rotate or sag. Hold for 5 seconds.
- Alternate the arm and leg movements on subsequent repetitions, repeat exercise for one minute.
- The key to this exercise is controlled lowering and raising of the opposite arm/leg while keeping the rest of the body still. This can be done as a partner exercise to give feedback on core stability.

Prone Row (BACK)



Cadence: Moderate

Start Position: Prone position with the arms overhead, palms face down, 1-2 inches off the ground. **Contract/tighten** the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

- Count:**
1. Raise the head and chest slightly while lifting the arms and pulling them rearward. Hands make fists as they move toward shoulders. Ensure that the toes remain on the ground.
 2. Return to the starting position.
 3. Repeat count one.
 4. Return to the starting position.

Superman (BACK)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Slow to moderate.

Start Position: Prone position with the arms overhead, palms face down.

Contract/tighten the abdominal and lower back muscles as if you were bracing to take a punch. Avoid holding your breath.

- Count:
1. Raise the head, arms, and legs about six inches off the ground.
 2. Return to the starting position.
 3. Repeat count one.
 4. Return to the starting position.

T's (SHOULDER)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Slow to moderate.

Start Position: Prone position with the arms out to the sides, chin off the ground, palms forward, thumbs up, toes in contact with the ground.

- Count:
1. Raise the arms 3-6 inches off the ground.
 2. Return to the starting position.
 3. Repeat count one.
 4. Return to the starting position.

Y's (SHOULDER)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Slow to moderate.

Start Position: Prone position with the arms 45 degrees to the front, looking forward with chin off the ground, thumbs up, toes in contact with the ground.

- Count:**
1. Raise the arms 3-6 inches off the ground.
 2. Return to the starting position.
 3. Repeat count one.
 4. Return to the starting position.

L's (SHOULDER)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Slow to moderate.

Start Position: Prone position with the arms bent 90 degrees at the shoulders and elbows, looking forward with chin off the ground, thumbs up, toes in contact with the ground.

- Count:**
1. Raise both arms 3-6 inches off the ground so that the entire arm lifts as one unit.
 2. Return to the starting position.
 3. Repeat count one.
 4. Return to the starting position.

W's (SHOULDER)



Start Position



Count 1



Count 2



Count 3



Count 4

Cadence: Slow to moderate.

Start Position: Prone position with the arms bent 90 degrees at the shoulders and elbows, looking forward with chin off the ground, thumbs up, toes in contact with the ground.

- Count:
1. Raise the arms up 3-6 inches off the ground and back 3-6 inches, pulling the elbows back towards the hips.
 2. Return to the starting position.
 3. Repeat count one.
 4. Return to the starting position.

Appendix D: Injury Specific Exercises

During Injury-Specific Exercise time, Soldiers should do exercises prescribed to them by a Physical Therapist or those on a handout provided by another medical provider such as physician, physician assistant, or nurse practitioner.*

*If the Soldier has NOT seen a Physical Therapist yet AND does NOT have a handout from another medical provider, the Soldier will do the exercises listed for their injury location on the hand-outs provided in the following pages. These are exercises to substitute until they are able to get an appointment for a personalized program from a medical provider.

If any exercise increases their pain, the Soldier should skip that exercise.

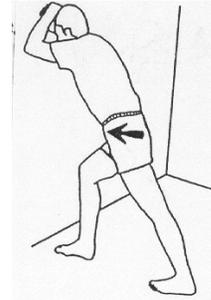
Heel Pain

*Use these exercises ONLY if you do not have exercises from a medical care provider. If you have exercises from your care provider, do those instead.

Do all 5 exercises and stretches below (skip any that cause sharp pain):

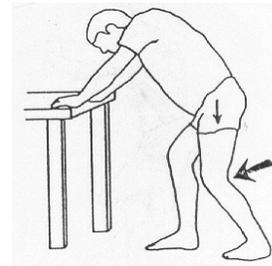
1. Calf Stretch (Gastrocnemius):

Keeping back leg straight, with heel on the floor and turned slightly outward, lean into wall until a stretch is felt in the calf. Hold 15-30 seconds. Repeat 2 times, each leg.



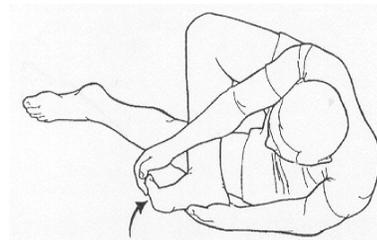
2. Calf Stretch (Soleus):

Standing with both knees bent and involved foot back, gently lean into the wall until a stretch is felt in the lower calf. Hold 15-30 seconds. Repeat 2 times, each leg.



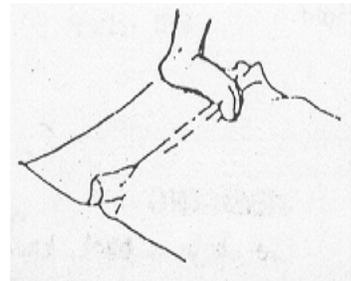
3. Plantar Foot Stretch:

Pull up all of your toes and bring your whole foot towards your face to feel a stretch on the bottom of your foot. Hold 15-30 seconds. Repeat 2 times, each foot.



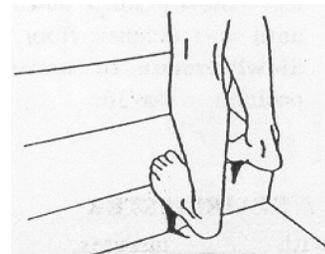
4. Towel Scrunching:

Use your toes to scrunch up a towel (brown towel works well). Repeat 3 x 30 seconds.



5. Advanced Heel Cord Stretch:

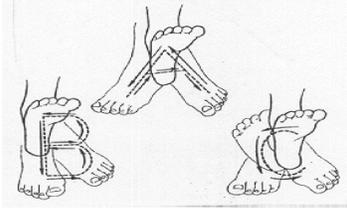
Stand with heel over the edge of a step lower your heel to get a moderate stretch. Try with knee straight and bent as before.



Ankle Sprain

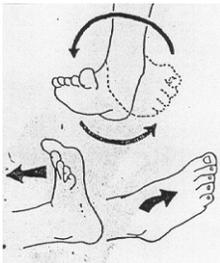
PHASE 1

Phase 1 is over when these exercises are easy. Do all 7 (skip any that cause pain):



1. Alphabet Writing:

Pretend there is a pen between your big toe and second toe. Use that imaginary pen to write the alphabet in large letters. Repeat 2 times.

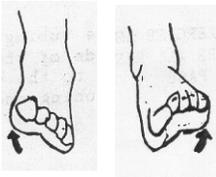


2. Ankle Circles:

Do clockwise and counterclockwise. Repeat 10 - 20 times each way.

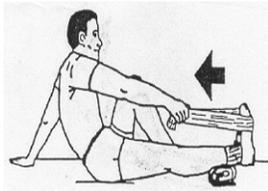
3. Ankle Pumps:

Bring foot up and point foot down. Repeat 10-15 times.



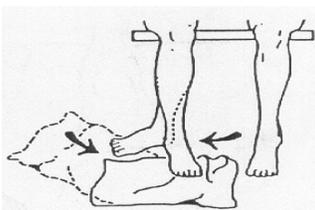
4. Inversion/ Eversion:

Bring foot in and out to the side (most important out). Repeat 10-15 times, 3 sets.



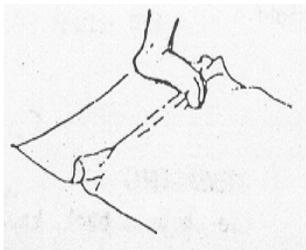
5. Heel Cord Stretch:

Using a towel around your foot, pull foot towards your body. Hold 15-30 seconds. Repeat 2 times each side.



6. Towel Slide:

Bring the foot on the towel towards the outside. Hold 1 second. Repeat 3 x 10-15.



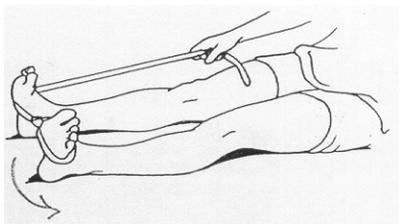
7. Towel Scrunching:

Use your toes to scrunch up a towel (brown towel works well). Do 3 x 30 sec.

Ankle Sprain

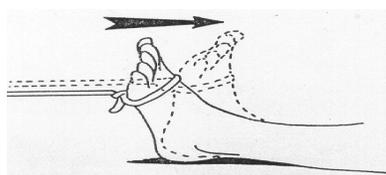
PHASE 2

Do all 6 (skip any that cause pain):



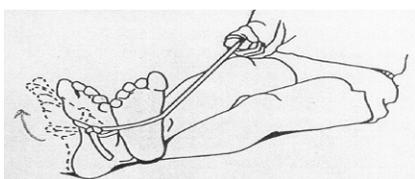
1. Eversion:

Put tubing around both ankles as pictured and push injured ankle out and slightly upward to the side (away from opposite ankle). Do 3 sets of 10-15 reps.



2. Dorsiflexion:

Hook band to bottom of bed or have someone hold to provide resistance against bringing your foot up towards you. Do 3 sets of 10-15 reps.



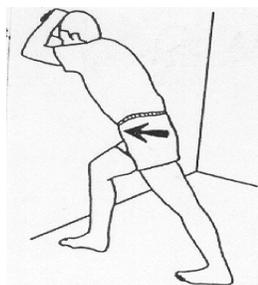
3. Inversion:

Cross uninjured ankle over the injured one and with the tubing around both, bring foot inwards. Do 3 sets of 10-15 reps.



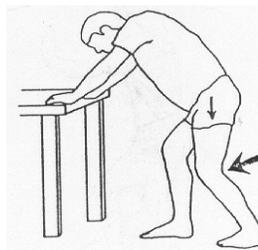
4. Seated Heel Raise:

Raise the weight of your leg off of your heel while being seated. Do 3 sets of 10-15 reps.



5. Calf Stretch (Gastrocnemius)

Keeping back leg straight, with heel on the floor and turned slightly outward, lean into wall until a stretch is felt in the calf. Hold 15-30 seconds. Repeat 2 times, each leg.



6. Calf Stretch (Soleus)

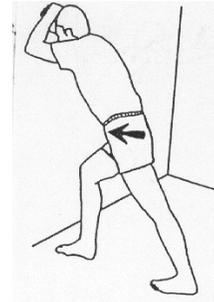
Standing with both knees bent and involved foot back, gently lean into the wall until a stretch is felt in the lower calf. Hold 15-30 seconds. Repeat 2 times, each leg.

Shin Splints

Do all 5 stretches and exercises (skip any that cause pain):

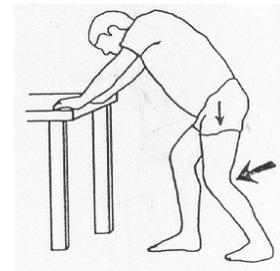
1. Calf Stretch (Gastrocnemius):

Keeping back leg straight, with heel on the floor and turned slightly outward, lean into wall until a stretch is felt in the calf. Hold 15-30 seconds. Repeat 2 times, each leg.



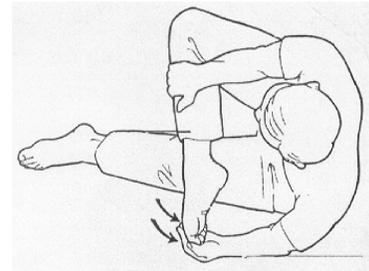
2. Calf Stretch (Soleus):

Stand with both knees bent and involved foot back, gently lean into the wall until a stretch is felt in the lower calf. Hold 15-30 seconds. Repeat 2 times, each leg.



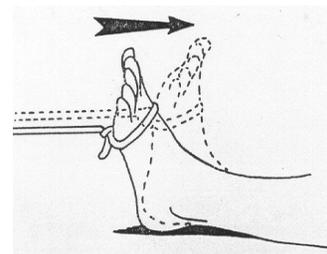
3. Ankle Plantarflexion Stretch:

Gently grasp foot and bend ankle down, hold 15-30 seconds. Repeat 2 times, each leg.



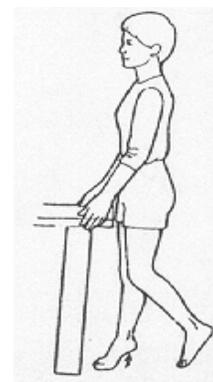
4. Resisted Dorsiflexion :

With tubing anchored to a door jam, pull your foot toward your face. Hold 2 seconds. Repeat 10-15 times, 3 sets each leg. If no tubing is available, lean back against a wall with your feet 1 ft. away from the wall. Raise your toes off the ground. Hold 2 seconds. Repeat 10-15 times, 3 sets.



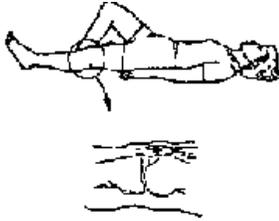
5. Heel Raises Single Limb Stance:

Start by using a table or wall for balance initially for one leg or use both legs without holding on and progress as you become stronger to doing it on one foot without touching anything. Hold 1 second. Repeat 10 repetitions, 3 times. Then do the same thing with your knee bent. BE SAFE!

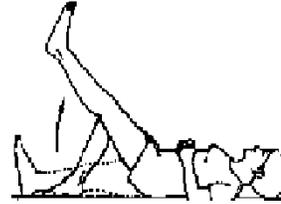


Knee Pain

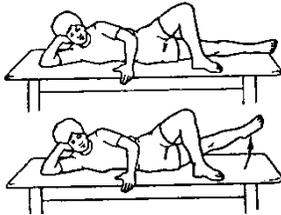
Knee exercises: Choose 3 each day. Skip any that cause pain. It 's okay to do 3 different exercises each day or stick with your favorites.



1. Quad Set:
With leg straight, tighten the muscle on top of the thigh. Hold 5 seconds. Keep holding, and tighten even more. Hold 5 more seconds. Repeat 10 times. Do 3 sets each side.



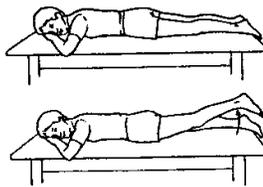
2. Straight Leg Raise:
Tighten the muscle on top of thigh, Raise the leg 8-10 inches from floor. Hold 2 seconds. Repeat 10 times. As you get better, work up to 30 repetitions. Do 3 sets each leg.



3. Side Lying Hip Adduction:
Lying on side, tighten muscle on top of thigh, then lift leg 8-10 inches from floor. Hold 2 seconds. Repeat 10 times. As you get better, work up to 30 repetitions. Do 3 sets each leg.



4. Side Lying Hip Abduction:
Lying on side, tighten the muscle on the top of thigh, then lift the leg 8-10 inches from floor. Hold 2 seconds. Repeat 10 times. As you get better, work up to 30 repetitions. Do 3 sets each leg.



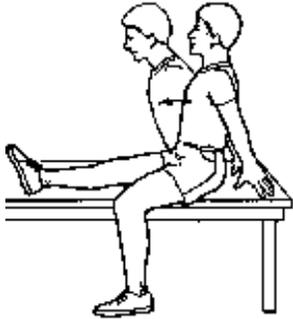
5. Prone Hip Extension:
Lying on stomach, tighten the muscles on the top of thigh, lift leg 8-10 inches from floor. Hold 2 seconds. Repeat 10 times. As you get better, work up to 30 repetitions. Do 3 sets each leg.



6. Wall Squat:
Place your back against the wall. Move your feet out f 2-3 feet from the wall. Slide down as far as you can without causing pain. Keep your hips higher than your knees. Make sure your knees never go forward of your toes. Adjust your foot placement as needed. Hold for 15 seconds working up to 2 minutes. Repeat 3 times.

Knee Pain

Knee Stretches: Do all 4



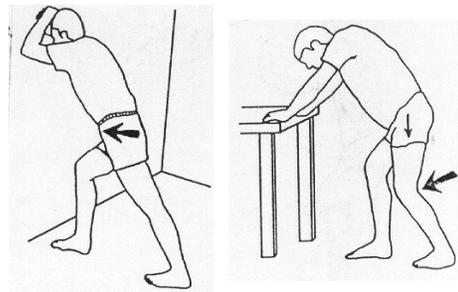
1. Hamstring Stretch:
Sit with leg straight on the bench, lean forward, keeping back straight. Hold 15-30 seconds. Repeat 2 times, each side.



2. Quad Stretch:
Stand straight. Grasp your same ankle with same hand. Pull ankle towards buttocks. Avoid letting your knee go out to the side, and try to bring the knee you're stretching behind the one you're standing on. Hold 15-30 seconds. Repeat 2 times, each side.



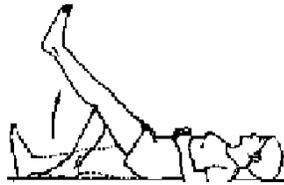
3. ITB Stretch:
Stand with the side you're stretching facing the wall. Lean your hip towards the wall, leaning at the trunk. Avoid bending forward at the waist. Hold 15-30 seconds. Repeat 2 times, each side.



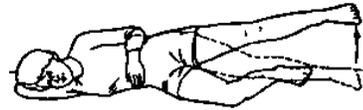
4. Calf Stretch:
Keeping back leg straight, with heel on the floor and turned slightly outward, lean into wall until a stretch is felt in the calf. Hold 15 - 30 seconds. Do this exercise again with your knee slightly bent. Hold 15-30 seconds. Repeat each stretch 2 times, both sides.

Hip Pain

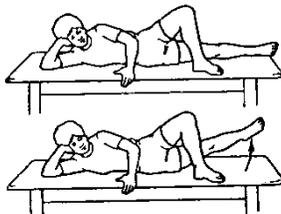
Hip exercises and stretches: Do all 7 (skip any that cause pain or popping)



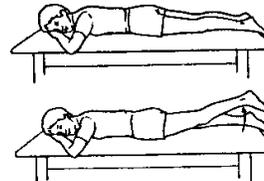
1. **Straight Leg Raise:**
Tighten the muscle on top of thigh, raise the leg 8-10 inches from floor. Hold 2 seconds. Repeat 10 times. As you get better, work up to 30 repetitions. Do 3 sets each leg.



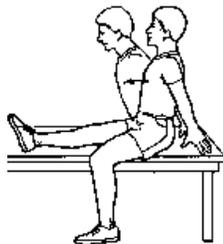
2. **Side Lying Hip Abduction:**
Lying on side, tighten the muscle on the top of thigh, then lift the leg 8-10 inches from floor. Hold 2 seconds. Repeat 10 times. As you get better, work up to 30 repetitions. Do 3 sets each leg.



3. **Side Lying Hip Adduction:**
Lying on side, tighten muscle on top of thigh, then lift leg 8-10 inches from floor. Hold 2 seconds. Repeat 10 times. As you get better, work up to 30 repetitions. Do 3 sets each leg.



4. **Prone Hip Extension:**
Lying on stomach, tighten the muscles on the top of thigh, lift leg 8-10 inches from floor. Hold 2 seconds. Repeat 10 times. As you get better, work up to 30 repetitions. Do 3 sets each leg.



5. **Hamstring Stretch:**
Sit with leg straight on the bench, lean forward, keeping back straight. Hold 15-30 seconds. Repeat 2 times, each side.



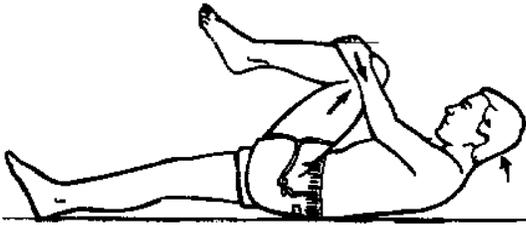
6. **Quad Stretch:**
Stand straight. Grasp your same ankle with same hand. Pull ankle towards buttocks. Avoid letting your knee go out to the side, and try to bring the knee you're stretching behind the one you're standing on. Hold 15-30 seconds. Repeat 2 times, each side.



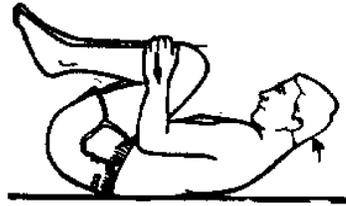
7. **ITB Stretch:**
Stand with the side you're stretching facing the wall. Lean your hip towards the wall, leaning at the trunk. Avoid bending forward at the waist. Hold 15-30 seconds. Repeat 2 times, each side.

Back Pain

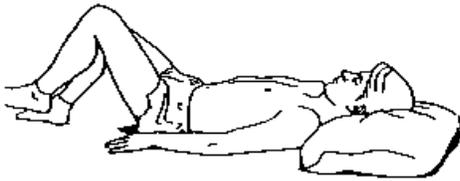
Back exercises and stretches: Choose 5 from the 10 listed below (skip any that cause an increase in your pain before or after the exercise. It's okay to do the same 5 each day or to choose a different 5 each day.



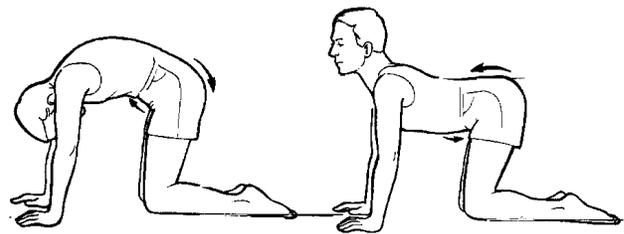
1. Single Knee to Chest:
Pull one knee to your chest until a comfortable stretch is felt in the lower back and buttocks. Repeat with opposite knee. Hold 2 seconds. Repeat 10 times, each side.



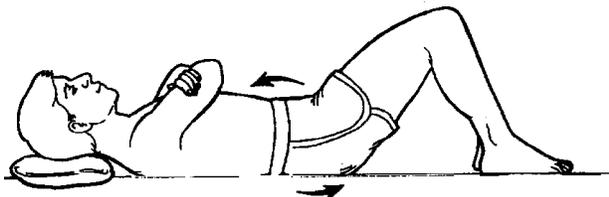
2. Double Knees to Chest:
Pull one knee to the chest, then bring the other knee to the chest and pull until you feel a comfortable stretch in the lower back and buttocks. Hold 2 seconds. Repeat 10 times, each side.



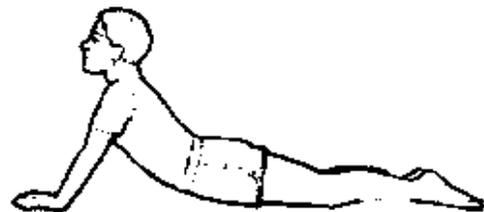
3. Hook Lying Leg Lifts:
Tighten stomach muscles to keep trunk rigid and slowly raise one leg 1 to 2 inches from the floor. Hold 3 seconds then slowly lower, keeping trunk rigid. Repeat 15 times, alternating R and L leg. Do 3 sessions per day.



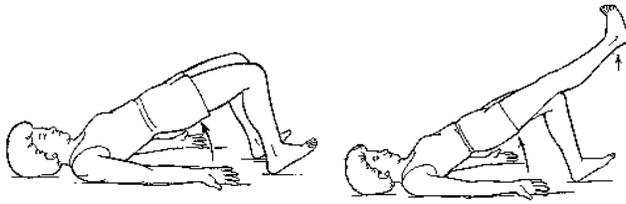
4. Cat / Camel Stretch:
Tuck chin and tighten stomach rounding back. Let your stomach drop down and your back arch. Repeat 15 times, 3 sets.



5. Pelvic Tilt:
Flatten back by tightening stomach muscles and buttocks. Hold 10 seconds. Repeat 10 times.

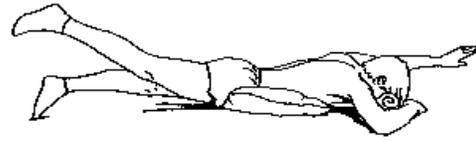


6. Press-up:
Press upper body upward into position shown, keeping hips in contact with floor. Keep low back and buttocks relaxed. Hold 1 second, then return to the start position. Repeat 10 times.

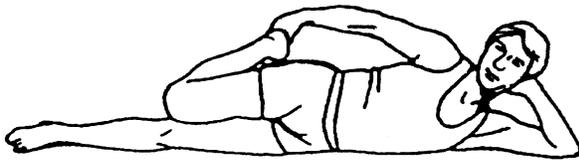


7. Bridging:

Start in pelvic tilt position, lift your pelvis up and hold for 2-3 seconds, repeat. Progress to alternately extending your legs from the bent position while holding the pelvis level. This exercise focuses on the lower back and pelvis.

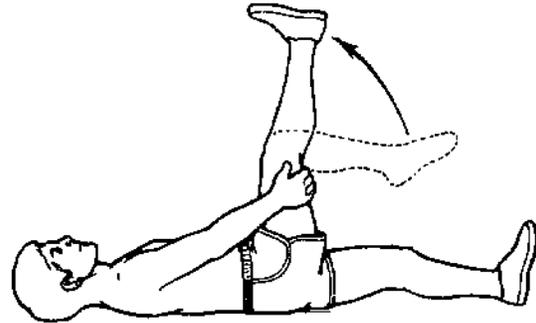


8. Prone Opposite Arm and Leg Lift: Simultaneously raise locked leg and opposite arm 6 to 8 inches from floor. Hold 1 second. Repeat 10 times, each side.



9. Quadriceps Stretch:

Lie on your side. Pull heel in toward buttocks until a comfortable stretch is felt in front of thigh. Hold 15-30 seconds. Do 3 times each side.

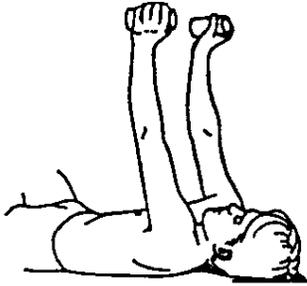


10. Active Hamstring Stretch

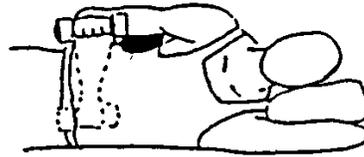
Support back of thigh behind knee. Starting with knee bent, attempt to straighten knee until a comfortable stretch is felt in back of thigh. Hold 3 seconds. Repeat 10 times, each side.

Shoulder Pain

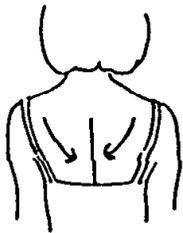
Shoulder exercises: Choose 2 from the column on the right and 2 from the column on the left (skip any that cause pain):



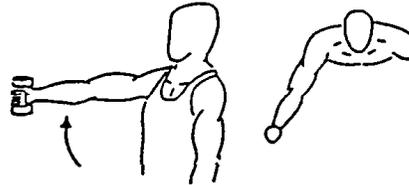
1. **Shoulder Blade Punch:**
Attempt to push arms straight up towards ceiling while keeping back against floor and elbows straight. Repeat 15-30 times. Do 3 sets. Use weights (water bottles are a good option).



2. **External Rotation:**
Lying on uninvolved side, place towel roll between upper arm and rib cage. Keep elbow bent to 90 degrees and tucked to side. Rotate arm upwards until horizontal.



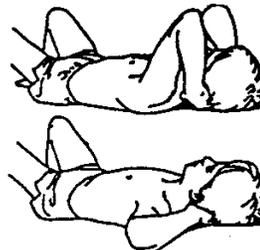
3. **Scapular Squeezes:**
Slowly pinch shoulder blades down and back. Hold 3 seconds. Repeat 10 times. Do 3 sets.



4. **Shoulder Scaption:**
Hold weight with thumb pointing up at a 30 degree angle from forward. Lift arm to just below shoulder height (or lower if raising the arm higher causes pain). Use weights (water bottles are a good option). Do 3 sets of 10-15 repetitions.



5. **Chair Push-Ups:**
Seated in a chair with arms at side, slowly lift body weight off chair, keeping back straight. Repeat 10-15 times. Do 3 sets.



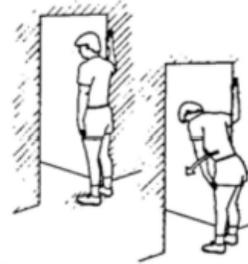
6. **Retraction in External Rotation:**
With fingers clasped behind head, pull elbows back while pinching shoulder blades together. Repeat 10-15 times. Do 3 sets.

Shoulder Pain

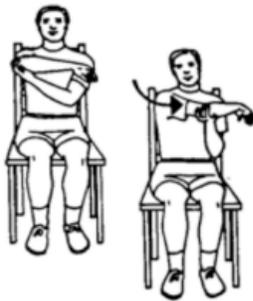
Shoulder stretches: Choose 2 (skip any that cause pain):



1. **Horizontal Shoulder Doorway Stretch:** Stand in front of doorway. Hands on doorframe at shoulder height. Tighten abdominal muscles keeping back straight. Step out and lean body forward, bending at ankles. Feel stretch in front of shoulders/chest. Hold 15-30 seconds. Repeat 2 times.



2. **Medial Rotator/Horizontal Adductor Stretch:** Stand in doorway. Bring arm to shoulder height, elbow bent to 90 degrees and forearm on doorframe. Tighten abdominal muscles, keeping back straight. Move trunk forward, bending at hips. Feel stretch in front of shoulder/chest. Hold 15-30 seconds. Repeat 2 times, each side.



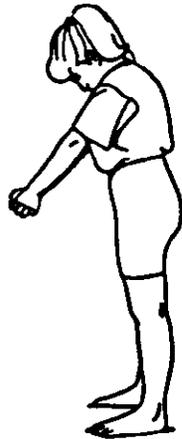
3. **Horizontal Shoulder Stretch:** Hold onto elbow at shoulder height with opposite hand. Pull arm across chest. Keep trunk still. Feel stretch in back and side of shoulder. Hold 15-30 seconds. Repeat 2 times, each side.



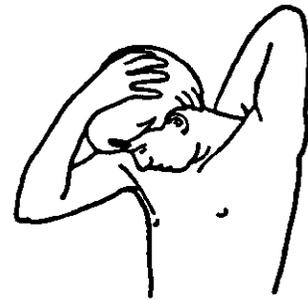
4. **Inferior Capsule Stretch:** Gently pull elbow over head until a stretch is felt. Hold 15-30 seconds. Repeat 2 times, each side.

Neck Pain

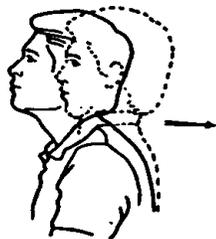
Neck Stretches: Do all 3 (skip any that cause pain):



1. Lower Cervical/Upper Thoracic Stretch:
Clasp hands together in front with arms extended. Gently pull shoulder blades apart and bend head forward. You should feel the stretch in your upper back. Hold 15-30 seconds. Repeat 3 times.



2. Levator Scapulae Stretch:
Place hand on shoulder blade on one side. With your other hand gently stretch head down and away. You should feel the stretch at the base of your skull down to your shoulder blade. Hold 15-30 seconds. Repeat 3 times, each side.



3. Chin Tuck:
Gently pull head straight back keeping jaw and eyes level. To intensify this exercise, put your hand on your chin and gently push back. You should feel a stretch in the back of the neck, under the base of the skull. Hold 3 seconds. Repeat 10 times.

Neck Pain

Neck Exercises: Start with #1 and 2, and progress to #3 and 4 when these get easy (avoid if they cause pain):



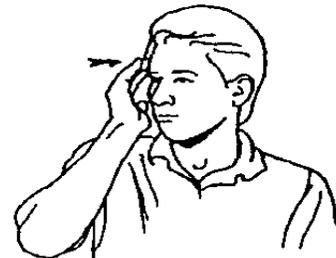
1. Isometric Lateral Bending (beginner: in neutral): Using light pressure from fingertips, press into side of head above ear. Resist bending sideways. Hold 3-5 seconds. Repeat 3-5 times, both directions.



2. Isometric Rotation (beginner: in neutral): Using light pressure from fingertips, press into temple/forehead area. Resist turning head. Hold 3-5 seconds. Repeat 3-5 times, both directions.



3. Isometric Lateral Bending (advanced: out of neutral): Tilt head toward shoulder. Apply light pressure to side of head just above ear and resist tilting head down further. Hold 3-5 seconds. Repeat 3-5 times, both directions.



4. Isometric Rotation (advanced: out of neutral): Turn head to side, apply light pressure to area just in front of temple, resist turning head further. Turn head to other side and repeat. Hold 3-5 seconds. Repeat 3-5 times.

Appendix E: Return to Run Progression

Guidelines:

1. Begin this program only if you are able to walk 30 minutes without symptoms at a moderately challenging pace.
2. Perform every other day only. Do not run two days in a row.
3. Perform at easy pace on level surfaces - no hills. Treadmills are a good choice that allow easy monitoring of time/distance.
4. Use good jogging shoes that are not more than 6-9 months old (even if you were injured during that 6-9 months, that time still counts for the age of the shoe because the cushioning will break down with time alone).
5. Consider changing the kind of shoe you buy if your shoes may have contributed to your injury. Discuss with your medical provider if you are unsure of which shoes to wear.
6. Stop if you experience increased pain, swelling, or stiffness. Such symptoms might not arise until the day after running. Do not run again until these symptoms are gone, and then resuming running at the last phase in which running was pain- free. Discuss with your medical provider when in doubt.
7. Try each phase at least twice and progress if you experience no increased pain, swelling, or stiffness.
8. After phase 10, if greater running distance is desired, progress gradually by no more than 10 percent per week.

Begin each session with a 10 minute warm-up of walking or biking, followed by stretching if directed by your medical provider.

Phase	Walk (min)	Run (min)	Repetitions	Total Time (min)
1	5	1	5	30
2	4	2	5	30
3	3	3	5	30
4	2	4	5	30
5	1	5	5	30
6	5	10	2	30
7	0	15	1	15
8	0	20	1	20
9	0	25	1	25
10	0	30	1	30

Appendix F: Foot March Progression

New, unfit, or return from profile Soldier:

Week	Weight / Gear	Distance (mi)
1	IOTV no plates	2
2	IOTV with 1 plate	2.5
3	IOTV with 2 plates	3
4	IOTV with all 4 plates	3
5	IOTV with plates and assault pack with 10 lbs	3
6	IOTV with plates and assault pack with 10 lbs	4
7	IOTV with plates and assault pack with 15 lbs	4
8	IOTV with plates and assault pack with 15 lbs	5
9	IOTV with plates and assault pack with 20 lbs	5
10	IOTV with plates and assault pack with 20 lbs	6
11	IOTV with plates and assault pack with 20 lbs	7
12	IOTV with plates and assault pack with 20 lbs	8
13	IOTV with plates and assault pack with 20 lbs	9
14	IOTV with plates and assault pack with 20 lbs	10
15	IOTV with plates and assault pack with 20 lbs	11
16	IOTV with plates and assault pack with 20 lbs	12

For elite Soldiers and missions:

- If your mission or MOS requires that you carry more weight, advance weight by no more than 5 lbs per week.
- If your mission or MOS requires that you march a farther distance, do not increase both distance and weight at the same time.
- Advance weight, then the next week advance distance.
- Advance distance no more than 1 mile per week.

Reference weights:

Medium IOTV with all 4 plates (no ammunition): 30 lbs

Large IOTV with all 4 plates (no ammunition): 35 lbs

Appendix G: Understanding the Profile

Common questions:

1. What is the difference between a T and a P profile?
 - T stands for temporary and P stands for permanent
2. What makes a profile a 2 or 3 (ie T2, T3, P2, P3)?
 - Checking “NO” in any of the boxes listed under Section 5 (Functional Activities for Permanent and Temporary Profiles) means that it is a level 3. If all boxes are checked “YES,” it is a level 2.
3. If APFT sit ups and APFT push ups are marked “NO,” can I still practice them during physical training?
 - Yes, unless the text in section 10 says otherwise, this section (Section 6) is in reference to the APFT itself ONLY.
 - During the first 90 days of the profile for the same injury, any box checked “NO” in the column to the left means that this Soldier may not take a PT test; therefore all 3 must be checked “NO.”
 - It is only after the first 90 days that an alternate event can be authorized and sit ups and push ups can again be marked “YES.”
4. When can a profiled Soldier take an alternate PT test?
 - See question #3. Once a Soldier has been on a continuous profile for the same injury for 90 days, the medical care provider MAY authorize an alternate PT test event for the run. This applies for temporary profiles, not just permanent.
5. Is the short form sick slip (SF689) valid?
 - Yes. According to AR 40-501 section 7-8, the SF689 is a valid form a medical provider can use as a profile. It is only valid for up to 30 days.