

**TABLE OF CONTENTS**

**PART 7**

Exercise No 51: Calf Raises (both legs)	2
Exercise No 52: Alt. Calf Raises	3
Informal exercises to develop leg muscular strength and endurance	4
Body weight training exercises	4
Exercise No 53: Isometric V sit adduction (with partner)	4
Exercise No 54: Isometric V Sit abduction (with partner)	5
Exercise No 55: Forward Lunges on Step	6
Exercise No 56: Side Lunges on Step	7
Weight training (poles)	7
Weight training (poles and rope)	7

## PHYSICAL TRAINING INSTRUCTORS MANUAL

### Exercise No 51: Calf Raises (both legs)

#### Illustration



<b>Objective</b>	To raise the body onto toes using both calves.
<b>Primary muscles</b>	Gastrocnemius (lateral and medial heads)
<b>Starting Position/ Command</b>	Pole calf- raise, position ready.
<b>Exercise Description</b>	Stand with your back straight. Place the pole on your shoulder. Rise up as high as you can on your toes (plantarflexion) while keeping your knees extended. Return to starting position.
<b>PTI Pointers</b>	<p>To stretch the muscles correctly, be sure to rise up as high as possible on your toes as you perform every repetition.</p> <p>Keep the knees locked but not hyperextended.</p> <p>Try varying foot positions (parallel, toes in, and toes out) to work all angles of the gastrocnemius.</p> <p>Make sure you flex your foot completely as you perform every repetition.</p>

## PHYSICAL TRAINING INSTRUCTORS MANUAL

### Exercise No 52: Alt. Calf Raises

#### Illustration

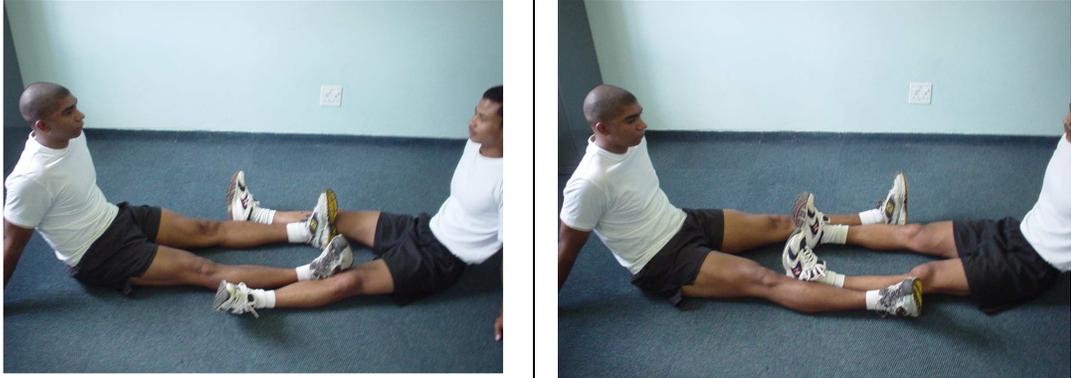


<b>Objective</b>	To raise the body onto toes using a single calf.
<b>Primary muscles</b>	Gastrocnemius (lateral and medial heads)
<b>Starting Position/ Command</b>	Pole alternative, calf raise, position ready.
<b>Exercise Description</b>	Stand on one foot, back straight. Place the pole on the shoulder. Rise up as high as you can on your toes (plantarflexion) keeping your knee extended or very slightly bent. Return to starting position.
<b>PTI Pointers</b>	<p>Make sure you flex your foot completely as you perform every repetition.</p> <p>Keep the knees locked but not hyperextended.</p> <p>Try varying foot positions (parallel, toes in, and toes out) to work all angles of the gastrocnemius.</p> <p>Make sure you flex your foot completely as you perform every repetition.</p>

## PHYSICAL TRAINING INSTRUCTORS MANUAL

### Informal exercises to develop leg muscular strength and endurance

#### *Body weight training exercises*

<b>Exercise No 53: Isometric V sit adduction (with partner)</b>	
Illustration	
	
<b>Objective</b>	To push the partners' legs closed whilst the partner offers resistance.
<b>Primary muscles</b>	Adductor muscles. Partner uses abductor muscles.
<b>Exercise Description</b>	Both learners sit with legs straight in a 'V' sit position. The active learner places his/her feet on the outside of the learner's legs. On the instructors whistle the active learner activates his adductor muscles and pushes inwards as hard as possible whilst the passive learner resist this by activating his abductor muscles and pushes outwards. This isometric contraction should be held between 5-10 seconds depending on the fitness level of the learner.
<b>PTI Pointers</b>	Avoid ballistic movements and sudden force/contraction of the adductor. Abductor muscles.

## PHYSICAL TRAINING INSTRUCTORS MANUAL

<b>Exercise No 54: Isometric V Sit abduction (with partner)</b>	
Illustration	
	
<b>Objective</b>	To push the partners legs open whilst the partner offers resistance.
<b>Primary muscles</b>	Abductor muscles. Partner uses adductor muscles.
<b>Exercise Description</b>	Both learners sit with legs straight in a 'V' sit position. The active learner places his/her feet on the inside of the learner's legs. On the instructors whistle the active learner activates his abductor muscles and pushes outwards as hard as possible whilst the passive learner resist this by activating his adductor muscles and pushes inwards. This isometric contraction should be held between 5-10 seconds depending on the fitness level of the learner.
<b>PTI Pointers</b>	Avoid ballistic movements and sudden force/contraction of the adductor. Abductor muscles.

## PHYSICAL TRAINING INSTRUCTORS MANUAL

### Exercise No 55: Forward Lunges on Step

#### Illustration



<b>Objective</b>	To lower the body toward the ground by stepping forward and flexing both knees and the hips.
<b>Primary muscles</b>	Hamstring, gluteus, quadriceps
<b>Starting Position/ Command</b>	Attention position, hands on the hips position ready.
<b>Exercise Description</b>	Stand with the feet six to eight inches apart. Take a large step forward onto a step of $\pm 30\text{cm}$ or less. As you lunge forward, you put all of your weight on your leading leg. Return the leg to the starting position. Keep the trunk erect throughout the exercise by looking straight ahead and keeping the chest out. Alternate legs.
<b>PTI Pointers</b>	Keep the trunk erect throughout the exercise. Keep the chest out. Be sure to flex both knees. Ensure that the front knee does not go past the foot.

## PHYSICAL TRAINING INSTRUCTORS MANUAL

<b>Exercise No 56: Side Lunges on Step</b>	
Illustration	
	
<b>Objective</b>	To lower the body toward the ground by stepping sideways and flexing both knees and the hips.
<b>Primary muscles</b>	Hamstring, gluteus, quadriceps and adductors.
<b>Starting Position/ Command</b>	Attention position, hands on the hips, position ready.
<b>Exercise Description</b>	Step directly to the right or left side, sinking into a squat position. Alternate between the left and right sides.
<b>PTI Pointers</b>	Keep the trunk erect throughout the exercise. Keep the chest out. Be sure to flex both knees. Ensure that the knees do not bend so deeply that they go past the front part of the feet.

### Weight training (poles)

None

### Weight training (poles and rope)

None