

## Chapter 13

# Dumbbell Drill

*"The race is to the swift; the battle to the strong."*

John Davidson, 19<sup>th</sup> Century Poet

Dumbbell training is an essential element of soldier strength development, providing shoulder-dominant movements that are not adequately trained in the calisthenic, climbing, and log drills. When dumbbell, calisthenic, and climbing drills are performed regularly, with precise movement and the appropriate progression, they develop the balanced, functional strength soldiers need to perform critical tasks against resistance. In addition, dumbbell training reinforces proper lifting mechanics, thereby promoting the safe execution of everyday lifting tasks.

### SECTION I – DUMBBELL EXERCISES

13-1. The purpose of the dumbbell drill is to improve functional strength, postural alignment, and the body mechanics for lifting. Dumbbell exercises are an excellent augmentation to calisthenics, employing resistance while executing many of the movements in Calisthenics Drills 1 and 2. The resistance allows the dumbbell exercises to strengthen areas of the body, such as the shoulders that are not sufficiently challenged with body weight alone. The drills are easily adaptable to large groups, and augment the calisthenic and climbing drills in their enhancement of strength, endurance, and mobility. Dumbbell training should be conducted following the same procedures used in instructing and leading calisthenics.

#### TRAINING AREA

13-2. Any level area of adequate size is satisfactory for conduct of the dumbbell drill.

#### UNIFORM

13-3. Soldiers will wear BDUs and boots or PFU. BDUs and boots will be worn when performing the dumbbell drill in combination with the climbing drills and/or Guerrilla Drill 2.

#### EQUIPMENT

13-4. Each soldier will begin dumbbell training with a pair of lightweight dumbbells (8-10 lbs. for men and 3-5 lbs. for women) and progress to heavier weights. Cast iron, hexagon-shaped dumbbells are the preferred choice.

Hexagon-shaped dumbbells prevent rolling when the dumbbells are grounded.

## **FORMATION**

13-5. For the most efficient instruction, the unit size should be limited to one platoon. Larger units up to a battalion can successfully perform the drill if properly taught and mastered at the small unit level. The extended rectangular formation is prescribed.

## **LEADERSHIP**

### **INSTRUCTION AND EXECUTION**

13-6. A PRT leader and assistant instructor (AI) are required to instruct and lead the dumbbell drill. The PRT leader must be familiar with the method of teaching these exercises, commands, counting cadence, cumulative count, formations, and utilization of AI(s) as described in Chapter 6. Soldiers should memorize the exercises by name and movement. The exercises are always given in cadence. Soldiers begin and terminate each exercise at the position of attention with the dumbbells grounded as described in paragraph 13-11. The goal is to be able to complete the entire drill with only enough pause between exercises for the instructor to indicate the next one by name. This continuous method of conducting the dumbbell drill, like the calisthenic drills, intensifies the workload and conserves time. Considerable time and effort must be expended during the early stages to teach precise performance of each exercise.

## **PRECISION**

13-7. Dumbbell exercises lose much of their value unless performed exactly as prescribed. Precision should never be compromised for quantity of repetitions or weight of dumbbells. Optimal training benefits will come from precise, controlled movements, not from a lot of fast, sloppy repetitions. PRT leaders must ensure that they prescribe a dumbbell weight that is appropriate for each soldier. If soldiers cannot complete three sets of five repetitions of all six exercises with proper form, then PRT leaders must adjust the dumbbell weight to achieve this standard.

## **PROGRESSION**

13-8. Each soldier will start with a pair of lightweight dumbbells (8-10 lbs. for men and 3-5 lbs. for women). Soldiers always perform five repetitions of each exercise and repeat for a second and third set when performing the dumbbell drill during the activity part of a PRT session. PRT leaders prescribe a dumbbell weight so that soldiers can complete the three sets of five repetitions with proper form.

13-9. Soldiers can gradually progress to heavier dumbbells. PRT leaders prescribe a heavier dumbbell weight such that soldiers can still complete the three sets of five repetitions of all exercises with proper form. PRT leaders must use caution when prescribing heavier dumbbells for soldiers. PRT leaders should especially monitor their soldier's response to the Shoulder

Raise and the Bent-over Lateral Raise, as these two exercises will limit the appropriate dumbbell weight for each individual. For example, on all of the shoulder raise exercises, if on counts one and three, the soldier demonstrates any one or more of the actions below, they must use a lighter weight:

- inability to pause before initiating the next movement.
- jerking the trunk to create momentum to raise the weight.
- shrugging the shoulders upward to complete the movement.

## INTEGRATION

13-10. The primary emphasis of the Dumbbell Drill is strength development. However, the various exercises involve movements that require mobility. When performed in combination with calisthenic and climbing drills, the Dumbbell Drill also contributes to the development of endurance.

## COMMANDS

13-11. When marching or moving soldiers with dumbbells in formation, soldiers will carry their dumbbells in the carry position. The Carry Position is with the dumbbells at the sides. See figure 13-1. PRT leaders give the command, “*Carry Position, MOVE.*” To assume the carry position from the position of attention with the dumbbells on the ground, soldiers 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides. 4) step to the right with the left foot to resume the position of attention with the dumbbells at the sides.



Figure 13-1. The Carry Position

13-12. When conducting dumbbell training, soldiers fall-in at the position of attention with the dumbbells in the carry position (dumbbells at the sides). From this position, PRT leaders can march or move the formation using the commands in FM 22-5, Drill and Ceremonies, or extend the formation using the commands in Chapter 6, PRT Execution. When extending in formation,

soldiers perform the movements while holding the dumbbells with the wrists straight and dumbbells parallel to the ground. Soldiers should not lift the dumbbells above shoulder level. Refer to Figure 13-2.



**Figure 13-2. Extending the Formation with Dumbbells**

13-13. To command the soldiers to place the dumbbells on the ground, the PRT leader gives the command, “**GROUND THE DUMBBELLS.**” Soldiers perform the following movements in unison, to a silent 4-count: 1) step to the left with the left foot to assume the straddle stance with dumbbells at the sides, 2) squat deeply and place the dumbbells on the ground outside of the feet so that the middle of the handle is even with the toe of the boot (refer to Figure 13-3), 3) rise to a straddle stance, 4) step to the right with the left foot to resume the position of attention.



**Figure 13-3. Dumbbell Position When Grounded**

13-14. To command the soldiers to pick up the dumbbells from the ground, the PRT leader gives the command, “**SECURE THE DUMBBELLS.**” Soldiers perform the following movements in unison, to a silent 4-count: 1) step to the left with the left foot to assume the straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with the dumbbells at the sides, 4) step to the right with the left foot to assume the position of attention with the dumbbells at the sides.

13-15. The dumbbell drill is conducted using the extended rectangular formation with the PRT leader on a platform. The PRT leader starts the drill with the dumbbells grounded. The drill consists of ten, 4-count exercises.

## BEGINNING DUMBBELL EXERCISES TO CADENCE

13-16. Once soldiers have learned the exercises by the numbers, the PRT leader merely needs to indicate the name of the exercise, command the soldiers to assume the starting position from the position of attention, and start them exercising to cadence. This is how the PRT leader begins Exercise 1 of The Dumbbell Drill, The Shoulder Raise to cadence:

- The PRT leader states, “**The Front Shoulder Raise.**”
- The soldiers respond, “**The Front Shoulder Raise.**”
- The PRT leader commands, “*Starting Position*, **MOVE.**” The soldiers assume the starting position.
- The PRT leader commands, “*In Cadence*,” (soldiers respond, “In Cadence”), “**EXERCISE, ONE, TWO, THREE.**”
- The soldiers state, “**ONE.**”

## COUNTING CADENCE

13-17. Counting cadence ensures that exercises are performed at the appropriate speed. All dumbbell exercises are performed at a moderate cadence (one count per second). The cumulative count is a method of indicating the number of repetitions of an exercise on the fourth count of a 4-count exercise. The use of the cumulative count is required for the following reasons:

- It provides the PRT leader with an excellent method of counting the number of repetitions performed.
- It serves as motivation. Soldiers like to know the number of repetitions they are expected to perform.
- It prescribes an exact amount of exercise for any group.

13-18. The PRT leader counts out the movements of each exercise and the soldiers state the number of repetitions performed on count four or count eight. A 4-count exercise is counted as follows:

- The PRT leader counts, “**ONE, TWO, THREE.**”
- The soldiers respond, “**ONE.**”
- The PRT leader counts, “**ONE, TWO, THREE.**”
- The soldiers respond, “**TWO.**”
- The PRT leader counts, “**ONE, TWO, THREE.**”
- The soldiers respond, “**THREE,**” etc.

## TERMINATING DUMBBELL EXERCISES TO CADENCE

13-19. To terminate an exercise, the PRT leader will raise the inflection of his voice while counting out the cadence of the last repetition. The soldiers and PRT leader respond with **HALT** upon returning to the starting position. A 4-count exercise is terminated as follows:

- The PRT leader counts, “**ONE, TWO, THREE.**”
- The soldiers respond, “**FOUR.**”
- The PRT leader counts, “**ONE, TWO, THREE.**” (with voice inflection).

- The soldiers and PRT leader respond, “**HALT.**”
- The PRT leader commands, “*Position of Attention*, **MOVE.**” Soldiers assume the position of attention.

## SECTION II – THE DUMBBELL DRILL

13-20. The dumbbell drill improves functional strength, postural alignment, and the body mechanics for lifting. **The drill is always performed in its entirety in the order listed.** Always perform five repetitions of each exercise and repeat for a second set of the drill. PRT leaders will prescribe a starting dumbbell weight so that soldiers can complete the two sets of five repetitions with proper form. Soldiers continue to be challenged by progressively increasing the dumbbell weight. PRT leaders prescribe a heavier dumbbell weight such that soldiers can still complete the two sets of five repetitions of all exercises with proper form as described in paragraph 13-8.

## Dumbbell Drill, Exercise 1 The Front Shoulder Raise

**Purpose:** This exercise develops shoulder strength and promotes trunk stability.

**Starting Position:** Straddle Stance with dumbbells at the sides. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides.

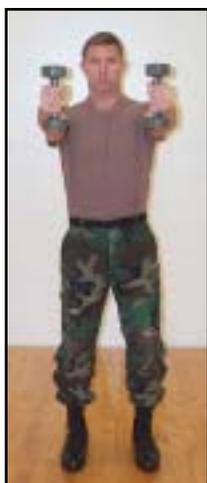
**Cadence:** Moderate.

**Count:**

1. Raise the dumbbells directly to the front to shoulder level, palms facing inward.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

**Check Points:**

- From the starting position, ensure that soldiers have their hips set, their abdominals tight.
- Throughout the exercise, the elbows are straight but not locked.
- On counts one and three, do not raise the dumbbells past shoulder level.
- Keep the wrists straight throughout the exercise.

**Precautions:** Excessive weight may strain the shoulders, as may raising the dumbbells above shoulder level on counts one and three.

## Dumbbell Drill, Exercise 2 The Rear Shoulder Raise

**Purpose:** This exercise develops shoulder strength and promotes trunk stability.

**Starting Position:** Forward Leaning Stance with arms hanging straight down, palms inward. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides, 4) Bend trunk forward 45-degrees to the ground, knees bent 45-degrees, arms straight down, palms inward.

**Cadence:** Moderate.

**Count:**

1. Raise the dumbbells directly to the rear to even with the trunk, palms facing inward.
2. Return to the starting position.
3. Repeat count 1.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

**Check Points:**

- From the starting position, ensure that soldiers have their hips set and their abdominals tight.
- Throughout the exercise, the elbows are straight but not locked.
- On counts one and three, do not swing the arms; lift and lower the dumbbells in a controlled manner.
- Keep the wrists straight throughout the exercise.

**Precautions:** Soldiers who round their back do not receive the full benefit of this exercise and place their backs at risk for injury. Excessive weight may strain the shoulders.

### Dumbbell Drill, Exercise 3 The Rear Lunge

**Purpose:** This exercise develops functional leg strength and promotes trunk stability.

**Starting Position:** Straddle Stance with dumbbells at the sides. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides



Starting Position

**Cadence:** Moderate.

**Count:**

1. Lower the body by stepping to the rear with the left leg, bearing most of the body weight on the bent right leg. Simultaneously lower the dumbbells to the right and left sides of the forward leg.
2. Return to the starting position.
3. Repeat count one to the opposite side.
4. Return to the starting position.



Count 1



Count 2



Count 3



Count 4

**Check Points:**

- At the starting position, ensure that soldiers have the hips set, the abdominals tight.
- On counts one and three, the forward heel remains flat, and the rear heel is up.
- On counts one and three, the forward knee remains directly over the ball of the foot.
- On counts one and three, the trunk is straight and forward leaning.
- On counts two and four, raise the body upward with a vigorous push of the forward leg without jerking the trunk backwards.
- On counts one and three, the dumbbell orientation remains parallel with the ground.
- Keep the wrists straight throughout the exercise.

**Precautions:** Allowing the forward knee to go beyond the toe on counts one and three will increase stress to the knees. Allowing the trunk to jerk rearward to return to the starting position may cause injury to the back.

### Dumbbell Drill, Exercise 4 The Bent-over Lateral Raise

**Purpose:** This exercise develops strength of the upper back and shoulder muscles, and promotes trunk stability.

**Starting Position:** Forward Leaning Stance with arms hanging straight down, palms inward. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides, 4) Bend trunk forward 45-degrees to the ground, knees bent 45-degrees, arms straight down, palms inward.



Starting Position

**Cadence:** Moderate.

**Count:**

1. Raise the dumbbells directly to the side to shoulder level, palms down, while bending the elbows to 90-degrees.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Count 1



Count 2



Count 3



Count 4

**Check Points:**

- At the starting position, ensure that the back is straight, head is in line with the back, knees are slightly bent, arms are straight but not locked, and the dumbbells are in front of the knees.
- On counts one and three, the elbows are bent approximately 90-degrees.
- On counts one and three, the hands should be at least as high as the elbows.
- On counts one and three, do not raise the dumbbells past shoulder level.
- Throughout the exercise, the back remains straight; the trunk is forward leaning at 45-degrees.
- Keep the wrists straight throughout the exercise.

**Precautions:** Soldiers who round their back do not receive the full benefit of this exercise and place their backs at risk for injury. Excessive weight may strain the shoulders, as may raising the dumbbells above shoulder level on counts one and three.

## Dumbbell Drill, Exercise 5 The Forward Lunge

**Purpose:** This exercise stimulates balance, develops leg strength, and promotes trunk stability.

**Starting Position:** Straddle stance with dumbbells at the sides. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides.

**Cadence:** Moderate.

**Count:**

1. Take an exaggerated step forward with the left leg, allowing the left knee to bend until the left thigh is parallel to the ground.
2. Return to the starting position.
3. Repeat count one with the right leg.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

**Check Points:**

- From the starting position, ensure that soldiers have their hips set and their abdominals tight.
- On counts one and three, the forward heel remains flat, and the rear heel is up.
- On counts one and three, the forward knee remains directly over the ball of the foot.
- On counts one and three, the trunk is straight and forward leaning.
- On counts one and three, the dumbbell orientation remains parallel with the ground.
- On counts two and four, push off vigorously with the forward leg without jerking the trunk backwards.
- Keep the wrists straight throughout the exercise.

**Precautions:** Do not allow the forward knee to go beyond the toes, nor waiver from side to side. Do not allow the back to round on counts one and three. Do not jerk the trunk rearward to return to the starting position.

## Dumbbell Drill, Exercise 6 The Side Shoulder Raise

**Purpose:** This exercise develops shoulder strength and promotes trunk stability.

**Starting Position:** Straddle stance with dumbbells at the sides. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides.

**Cadence:** Moderate.

**Count:**

1. Raise the dumbbells directly to the side to shoulder level, palms down.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

### Check Points:

- From the starting position, ensure that soldiers have their hips set, their abdominals tight.
- Throughout the exercise, the elbows are straight but not locked.
- On counts one and three, do not raise the dumbbells past shoulder level.
- Keep the wrists straight throughout the exercise.

**Precautions:** Excessive weight may strain the shoulders, as may raising the dumbbells above shoulder level on counts one and three.

## Dumbbell Drill, Exercise 7 The Squat Lift

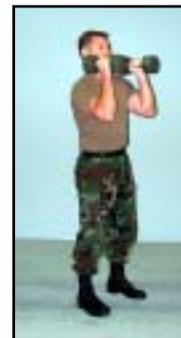
**Purpose:** This exercise develops the ability to safely squat and lift from the ground. It strengthens the legs and arms while promoting trunk stability.

**Starting Position:** Straddle stance with the dumbbells at shoulder level, palms inward. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides, 4) curl the dumbbells to shoulder level, palms facing one another.

**Cadence:** Moderate.

**Count:**

1. Squat until the thighs are parallel to the ground and simultaneously lower the dumbbells to the sides.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

**Check Points:**

- From the starting position, ensure that soldiers have their hips set and their abdominals tight.
- On counts one and three, squat with the trunk tilted slightly forward but straight from head to hips.
- On counts one and three, keep the heels flat.
- Keep the wrists straight throughout the exercise.

**Precautions:** If the back begins to round or the heels come off the ground on counts one and three, do not continue to squat any deeper.

## Dumbbell Drill, Exercise 8 The Curl and Press

**Purpose:** This exercise develops arm and shoulder strength while promoting trunk stability.

**Starting Position:** Straddle Stance with dumbbells at the side. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides.

**Cadence:** Moderate.

**Count:**

1. Curl the dumbbells to shoulder level, palms facing the shoulders.
2. Press the dumbbells overhead by rotating the arms outward
3. Lower the dumbbells to shoulder level, palms facing the shoulders, as in count one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

**Check Points:**

- At the starting position, ensure that soldiers have the hips set and their abdominals tight.
- On count two, the arms should be directly overhead with the elbows straight but not locked.
- On counts one and three, the hands and elbows should line up vertically with the dumbbells just above shoulder level and parallel to the ground.
- Keep the wrists straight throughout the exercise.

**Precautions:** Do not allow the trunk to sway during any portion of this exercise, as this may place undue strain on the back.

## Dumbbell Drill, Exercise 9 The Straight Back Lift

**Purpose:** This exercise develops strength of the back and leg muscles. It also trains soldiers to keep the back straight when circumstances prevent lifting with the knees bent, such as lifting items from a crate or the trunk of a vehicle.

**Starting Position:** Straddle stance with dumbbells in front of body, palms facing the thighs. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides, 4) bring dumbbells in front of the body, palms facing the thighs.

**Cadence:** Moderate.

**Count:**

1. Bend forward at the waist with the knees slightly bent. The arms hang straight down, perpendicular to the ground.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

**Check Points:**

- On counts one and three, the back is straight, the knees are slightly bent, the heels remain on the ground and the head is in line with the trunk.
- On counts two and four, do not allow the trunk to bend backwards past the starting position.
- Throughout the exercise, do not allow the shoulders to round forward.

**Precautions:** Soldiers who round their back do not receive the full benefit of this exercise and place their backs at risk for injury.

## Dumbbell Drill, Exercise 10 The Push Press

**Purpose:** This exercise develops the ability to lift an object overhead. It strengthens the legs and arms while promoting trunk stability.

**Starting Position:** Straddle stance with arms overhead, palms facing inward. To assume the starting position from the position of attention with the dumbbells on the ground, 1) assume a straddle stance, 2) squat deeply and grasp the dumbbells, 3) rise to a straddle stance with dumbbells at the sides, 4) Curl dumbbells to shoulder level, palms facing inward, 5) Press dumbbells overhead, palms facing inward.

**Cadence:** Moderate.

**Count:**

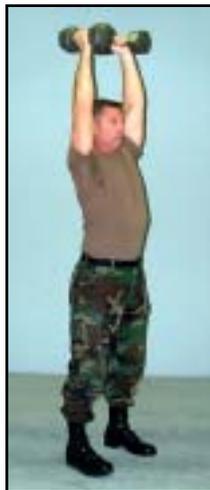
1. Squat and lower the dumbbells to the dumbbells to shoulder level.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Starting Position



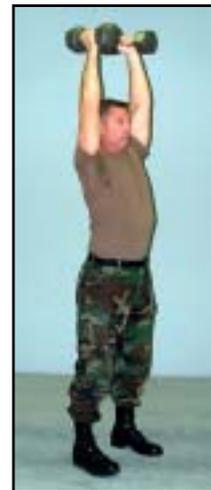
Count 1



Count 2



Count 3



Count 4

**Check Points:**

- At the starting position, ensure that soldiers have their hips set and their abdominals tight.
- On counts one and three, the heels remain on the the ground and the back is straight with the trunk leaning slightly forward.
- If the back begins to round or the heels come off of the ground on counts one and three, do not continue to squat any deeper.
- On counts two and four, rise from the squat and press the dumbbells overhead in one continuous movement, keeping the trunk straight.
- Throughout the exercise, keep the wrists straight, with palms facing inward.

**Precautions:** Allowing the knees to go beyond the toes on counts one and three will increase stress to the knees. Allowing the trunk to jerk rearward to return to the starting position may cause injury to the back.

### **SECTION III - SUMMARY**

13-21. Dumbbell exercises develop the ability to overcome resistance by building strength and improving the body mechanics needed for lifting tasks. They are an essential element of the PRT system's strength development plan. Together with calisthenic, climbing, log, and guerrilla drills, they ensure that soldiers are prepared for the strength demands of both critical soldier tasks and everyday lifting requirements.