## 805P-MFT-0021 Conduct a Movement Assessment Status: Approved

officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Security Classification: U - Unclassified

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the U.S. Center for Initial Military Training, Ft Eustis, VA foreign disclosure

**Conditions:** Given a requirement to assess movement in an indoorfitness facility, a Functional Movement Screen (FMS) Kit, a FMS manual, a blank FMS Scoring Sheet, and a pen and clip board. Standard MOPP 4 conditions do not exist for this task. See the MOPP 4 statement for specific conditions.

Standards: Conduct a movement assessment using the Functional Movement Screen (FMS) IAW the FMS standards and record the results of all seven (7) movements on the FMS Scoring Sheet.

Special Conditions: None

Safety Risk: Low

MOPP 4: N/A

**Task Statements** 

Cue: None

# DANGER

Sudden cardiac event could occur during the execution of this assessment. Unit chain of command should be aware of Soldiers that have self-reported previous cardiac injury and/or Soldiers requiring over-40 screening.

## WARNING

- Injury may occur from improper execution of screening movements. It is important that each movement executed in this assessment be executed IAW FMS Manual.

 Dehydration may occur in Soldiers not properly hydrated. Proper hydration needs to be monitored by the unit leadership.

- Heat or Cold Weather injuries may occur in Soldiers not properly acclimated and/or trained. Unit leadership needs to monitor as per their Deliberate Risk Assessment.

# CAUTION

Conduct visual reconnaissance of training area before execution of this assessment.

Remarks: None

Notes: None



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-		R			
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-	IMPINGEMENT CLEARING L TEST R				
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	ACTIVE STRAIGHT-LEG RAISE				
	TRUNK STABILITY PUSHUP				
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8	KOTAKT STADILITT				
	POSTURE ROCKING CLEARING TEST				
Raw Score: This score is used to denote right and left side scoring. The right and left sides are scored in five of the seven tests and both are documented in this space. Final Score: This score is used to denote the overall score for the test. The lowest score for the					

#### **FMS Scoring Sheet**

Functional Movement Screen Scoring Sheet

#### **Performance Steps**

1. Conduct the Deep Squat Movement Pattern:

Note: PURPOSE: The deep squat pattern is part of many functional movements. It demonstrates fully upper and lower extremity and core stability, with the hips and shoulders functioning in symmetrical positions. While full deep squatting is not often required in modern daily life, general exercise and sport moves, active individuals still require the basic components for the deep squat.

Upper and lower extremity, postural control, pelvic and core stability are well represented in the deep squat movement pattern. The deep squat is a move that challenges total body mechanics and neuromuscular control when performed properly. We use it to test bilateral, symmetrical, functional mobility and stability of the hips, knees and ankles.

The dowel held overhead calls on bilateral, symmetrical mobility and stability of the shoulders, scapular region and the thoracic spine. The pelvis and core must establish stability and control throughout the entire movement to achieve the full pattern.

a. Direct the Soldier to assume the starting position by placing the instep of the feet in vertical alignment with the outside of the shoulders. The feet and toes must be directly in front. The Soldier rests the dowel on top of the head to adjust the hand position resulting in the elbows at a 90-degree angle.

b. Direct the Soldier to press the dowel overhead with the shoulders flexed and abducted and the elbows fully extended.

c. Direct the Soldier to descend slowly into the deepest possible squat position, heels on the floor, head and chest facing forward and the dowel maximally pressed overhead. The knees should be aligned over the feet with no valgus collapse.

d. Direct the Soldier to resume the starting position and ask the Soldier if he/she had pain with the movement.

e. Repeat for three repetitions (if needed). (If the initial movement falls within the criteria for a score of three, there is no need to perform another test. If any of the criteria for a score of three are not achieved, ask the Soldier to perform the test with the board from the earlier described FMS kit under the heels. If any of the criteria for the score of two are not achieved while using the FMS board, the Soldier receives a score of one.)

f. Annotate the Soldier's assessed score on the FMS Scoring Sheet.

#### Note:

- 1. To achieve a score of 3, the: upper torso is parallel with tibia or toward vertical
  - femur below horizontal
  - knees are aligned over feet -
  - dowel is aligned over feet.
- 2. To achieve a score of 2, the:
  Upper torso is parallel with tibia or toward vertical
  Femur is below horizontal

  - Knees are aligned over feet
  - Dowel is aligned over feet
  - Heels are elevated over the FMS board.
- 3. To achieve a score of 1, the:
  - Tibia and upper torso are not parallel
  - -Femur is not below horizontal
  - Knees are not aligned over feet
  - -Lumbar flexion is noted

4. The Soldier receives a score of 0 if pain is associated with any portion of this test. A medical professional should perform a thorough evaluation of the painful area.

NOTE (Tips for Screening):

- o Observe the Soldier from the front and side.
- o All positions including the foot position should remain unchanged when the heels are elevated, with either the FMS kit or a similar size board.
- o Do not judge the pattern or interpret the cause of the score while testing.
- o Do not coach the movement; simply repeat the instructions if needed.
- o Was there pain?
- o When in doubt, score low.



Upper torso is parallel with tibia or toward vertical | Femur below horizontal Knees are aligned over feet | Dowel aligned over feet

Functional Movement Screen (FMS)



Upper torso is parallel with tibia or toward vertical | Femur is below horizontal Knees are aligned over feet | Dowel is aligned over feet | Heels are elevated

> Functional Movement Screen (FMS) Deep Squat 2



Tibia and upper torso are not parallel | Femur is not below horizontal Knees are not aligned over feet | Lumbar flexion is noted

Functional Movement Screen (FMS) Deep Squat 1

2. Conduct the Hurdle Step Movement Pattern:

Note: PURPOSE: The hurdle step movement pattern is an integral part of locomotion and acceleration. Although we do not step to this level in most activities, the hurdle step will expose compensation or asymmetry in stepping functions. The step test challenges the body's step and stride mechanics, while testing stability and control in a single-leg stance.

The movement requires proper coordination and stability between the hips, moving asymmetrically with one bearing the load of the body while the other moves freely. The pelvis and core must begin with and maintain stability and alignment throughout the movement pattern. The arms are still as they hold a dowel across the shoulders, giving the observer further representation of the static responsibility of the upper body and trunk in the stepping movement.

Excessive upper body movement in basic stepping is viewed as compensation; it is not seen when proper mobility, stability, posture and balance are available and functioning. The hurdle step challenges bilateral mobility and stability of the hips, knees and ankles. The test also challenges stability and control of the pelvis and core as it offers an opportunity to observe functional symmetry.

a. Adjust the height of the hurdle to the correct height by directing the Soldier to stand with the outside of the right foot against the base of the hurdle, in line with one of the hurdle uprights.

Note: The Soldier may adjust the hurdle's height by using the either method described in 2., a. OR 2., b..

b. Adjust the height of the hurdle to the correct height by measuring the distance from the floor to the tibial tuberosity, and raise the cord to that level.

Note: The Soldier may adjust the hurdle's height by using the either method described in 2., a. OR 2., b..

c. Direct the Soldier to position the dowel across the shoulders, below the neck.

d. Direct the Soldier to step over the hurdle to touch the heel to the floor while maintaining a tall spine, and return the moving leg to the starting position. The hurdle step is performed slowly and under control.

e. Annotate the Soldier's assessed score on the FMS Scoring Sheet.

- Note: 1. To achieve a score of 3, the: hips, knees and ankles remain aligned in the sagittal plane minimal to no movement is noted in lumbar spine
- dowel and hurdle remain parallel
- 2. To achieve a score of 2, the:
  - alignment is lost between hips, knees and ankles
  - movement is noted in lumbar spine
  - dowel and hurdle do not remain parallel
- 3. To achieve a score of 1, the:
  - Contact between foot and hurdle occurs
  - Loss of balance is noted

4. The Soldier receives a score of 0 if pain is associated with any portion of this test. A medical professional should perform a thorough evaluation of the painful area.

NOTE (Tips for Screening):

- o Ensure the cord is aligned properly.
- o Tell the Soldier get as tall as possible at the beginning of the test.
- o Watch for a stable torso.
- o Observe from the front and side.
- o Score the hurdle-stepping leg.
- o Make sure the toes of the stance leg stay in contact with the hurdle during and after each repetition.
- o Do not judge the pattern or interpret the cause of the score while testing.
- o Do not coach the movement; simply repeat the instructions if needed.
- o Was there pain?
- o When in doubt, score low.



Hips, knees and ankles remain aligned in the sagittal plane Minimal to no movement is noted in lumbar spine | Dowel and hurdle remain parallel

Functional Movement Screen (FMS) Hurdle Step 3



Alignment is lost between hips, knees and ankles | Movement is noted in lumbar spine Dowel and hurdle do not remain parallel

Functional Movement Screen (FMS) Hurdle Step 2



Contact between foot and hurdle occurs | Loss of balance is noted

## Functional Movement Screen (FMS) Hurdle Step 1

#### 3. Conduct the Inline Lunge Movement Pattern:

Note: PURPOSE: The inline lunge pattern is a component of deceleration movements and direction changes produced in exercise, activity and sport. Although the inline lunge explores more movement and control than many activities require, it provides a quick appraisal of left and right functions in the basic pattern. It is intended to place the body in a position to focus on the stresses as simulated during rotation, deceleration and lateral movements. The narrow base requires appropriate starting stability and continued dynamic control of the pelvis and core within an asymmetrical hip position equally sharing the load.

The inline lunge places the lower extremities in a split-stance position while the upper extremities are in an opposite or reciprocal pattern. This replicates the natural counterbalance the upper and lower extremities use to complement each other, as it uniquely demands spine stabilization. This test also challenges hip, knee, ankle and foot mobility and stability, at the same time simultaneously challenging the flexibility of multi-articular muscles such as the latissimus dorsi and the rectus femoris.

True lunging requires a step and descent. The inline lunge test only provides observation of the descent and return; the step would present too many variables and inconsistencies for a simple movement screen. The split-stance narrow base and opposite-shoulder position provide enough opportunities to discover the mobility and stability problems of the lunging pattern.

a. Attain the Soldier's tibia length by either measuring it from the floor to the top center of the tibial tuberosity, or acquiring it from the height of the cord during the hurdle step test.

- b. Direct the Soldier to place the toe of the back foot at the start line on the kit.
- c. (Using the tibia measurement), direct the Soldier to put the heel of the front foot at the appropriate mark on the kit.
  - Note: In most cases, it's easier to establish proper foot position before introducing the dowel.

d. Direct the Soldier to place the dowel behind the back, touching the head, thoracic spine and sacrum. The Soldier's hand opposite the front foot should be the hand grasping the dowel at the cervical spine. The other hand grasps the dowel at the lumbar spine. The dowel must maintain its vertical position throughout both the downward and upward movements of the lunge test.

e. Direct the Soldier to lower the back knee to touch the board behind the heel of the front foot and return to the starting position.

#### f. Annotate the Soldier's assessed score on the FMS Scoring Sheet.

Note: If any of the criteria for a score of three are not achieved, the Soldier receives a score of two. If any of the criteria for the score of two are not achieved, the Soldier receives a score of one.

- 1. To achieve a score of 3, the:
  - dowel contacts maintained
  - dowel remains vertical
  - no torso movement noted
  - dowel and feet remain in sagittal plane
    knee touches board behind heel of front foot
  - knee touches board benind heer of none
- 2. To achieve a score of 2, the:
  - Dowel contacts not maintained
  - Dowel does not remain vertical
    Movement noted in torso
  - Dowel and feet do not remain in sagittal plane
  - Dower and reet do not remain in sagittal plane
     Knee does not touch behind heel of front foot
- 3. To achieve a score of 1. the:
  - Loss of balance is noted

4. The Soldier receives a score of 0 if pain is associated with any portion of this test. A medical professional should perform a thorough evaluation of the painful area.

#### NOTE (Tips for Screening):

- o The front leg identifies the side you're scoring-this simply represents the pattern and does not imply the functional ability of a body part or side.
- o Always remember you are screening patterns, not parts.
- o The dowel remains vertical and in contact with the head, thoracic spine and sacrum during the movement.
- o The front heel remains in contact with the board, and the back heel touches the board when returning to the starting position.
- o Watch for loss of balance.
- o Remain close to the Soldier to prevent a complete loss of balance.
- o Do not judge the pattern or interpret the cause of the score while testing.
- o Do not coach the movement; simply repeat the instructions if needed.
- o Was there pain?
- o When in doubt, score low.



Dowel contacts maintained | Dowel remains vertical | No torso movement noted Dowel and feet remain in sagittal plane | Knee touches board behind heel of front foot

> Functional Movement Screen (FMS) Inline Lunge 3



Dowel contacts not maintained | Dowel does not remain vertical | Movement noted in torso Dowel and feet do not remain in sagittal plane | Knee does not touch behind heel of front foot



Loss of balance is noted

## Functional Movement Screen (FMS) Inline Lunge 1

4. Conduct the Shoulder Mobility Movement Pattern:

Note: PURPOSE: The shoulder mobility reaching pattern demonstrates the natural complementary rhythm of the scapular-thoracic region, thoracic spine and rib cage during reciprocal upper-extremity shoulder movements. Although the full reciprocal reaching pattern is not seen in basic activities, it uses each segment to its range of active control, leaving little room for compensation. Removing compensation provides a clear view of movement ability.

The cervical spine and surrounding musculature should remain relaxed and neutral, and the thoracic region should have a natural extension before doing the alternate upper-extremity patterns.

This pattern observes bilateral shoulder range of motion, combining extension, internal rotation and adduction in one extremity, and flexion, external rotation and abduction of the other.

a. Determine the Soldier's hand length by measuring the distance from the distal wrist crease to the tip of the longest digit.

b. Direct the Soldier to stand with the feet together, and make a fist with each hand, thumbs inside the fingers.

c. Direct the Soldier to simultaneously reach one fist behind the neck and the other behind the back, assuming a maximally adducted, extended and internally rotated position with one shoulder, and a maximally abducted and externally rotated position with the other.

Note: During the test, the hands should move in one smooth motion, and should remain fisted.

d. Measure the distance between the two closest points of the hands to determine the Soldier's symmetrical reach.

e. Direct the Soldier to perform the shoulder mobility screen a maximum of three times bilaterally.

f. Conduct the Impingement Clearing Test.

Note: There is a clearing exam at the end of the shoulder mobility test. You're not scoring this, but instead are watching for a pain response. If pain is produced, a positive (+) is recorded on the score sheet, and a score of zero is given to the entire shoulder reach test.

The Soldier places a palm on the opposite shoulder and lifts the elbow as high as possible while maintaining the palm-to-shoulder contact. This clearing exam is necessary because shoulder impingement will sometimes go undetected by shoulder mobility testing alone.

g. Annotate the Soldier's assessed score on the FMS Scoring Sheet.

Note:

- To achieve a score of 3, the:
   Fists are within one hand length
- To achieve a score of 2, the:
   Fists are within one-and-a-half hand lengths
- 3. To achieve a score of 1, the:
  - Fists are not within one and half hand lengths

4. The Soldier receives a score of 0 if pain is associated with any portion of this test. A medical professional should perform a thorough evaluation of the painful area.

#### NOTE (Tips for Screening):

o The top shoulder identifies the side being scored. This simply represents the pattern and does not imply the functional ability of a body part or side.

- o If the hand measurement is the same as the distance between the two points, score low.
- o If pain is present in the clearing test, the Soldier receives a zero.
- o Make sure the Soldier does not try to walk the hands toward each other following the initial placement.
- o Do not judge the pattern or interpret the cause of the score while testing.
- o Do not coach the movement; simply repeat the instructions if needed.
- o Was there pain?
- o When in doubt, score low.



Fists are within one hand length

Functional Movement Screen (FMS) Shoulder Mobility 3



Fists are within one-and-a-half hand lengths

Functional Movement Screen (FMS) Shoulder Mobility 2



Fists are not within one and half hand lengths

### Functional Movement Screen (FMS) Shoulder Mobility 1

5. Conduct the Active Straight-Leg Raise Movement Pattern:

Note: PURPOSE: The active straight-leg raise may appear to be the least functional screen, but don't be fooled by its simplicity. This pattern not only identifies the active mobility of the flexed hip, but includes the initial and continuous core stability within the pattern, as well as the available hip extension of the alternate hip. This is not so much a test of hip flexion on one side, as it is an appraisal of the ability to separate the lower extremities in an unloaded position. This movement is often lost when flexibility of multi-articular muscles is compromised.

The glute maximus/iliotibial band complex and the hamstrings are the structures most likely to result in flexion limitations. Extension limitations are often seen in the iliopsoas and other muscles of the anterior pelvis. This pattern challenges the ability to dissociate the lower extremities while maintaining stability in the pelvis and core. The movement also challenges active hamstring and gastroc-soleus flexibility, while maintaining a stable pelvis and active extension of the opposite leg.

a. Direct the Soldier to lie supine with the arms by the sides, palms up and the head flat on the floor.

Note: A board is placed under the knees; this can be either the FMS kit board, or a board of similar dimensions. Both feet should be in a neutral position, the soles of the feet perpendicular to the floor.

b. Find the point between the anterior superior iliac spine (ASIS) and the joint line of the knee, and places a dowel at this position, perpendicular to the ground.

c. Direct the Soldier to lift the test leg while maintaining the original start position of the ankle and knee.

Note: The opposite knee should remain in contact with the board; the toes should remain pointed upward in the neutral limb position, and the head remains flat on the floor.

d. Once reaching the end-range, note the position of the upward ankle relative to the non-moving limb.

Note: If the malleolus passes the dowel, record a score of three. If the malleolus does not pass the dowel, move the dowel, much like a plumb line from the malleolus of the test leg, and again score per the criteria.

e. Direct the Soldier to perform the active straight-leg raise screen a maximum of three times bilaterally.

f. Conduct the trunk stability press-up test.

Note: This movement is not scored; it is performed to observe a pain response. If pain is produced, a positive (+) is recorded and a score of zero is given to the entire press-up test. Clear spinal extension with a press up from the pushup position. If the client receives a positive score, document both scores for future reference.

- g. Annotate the Soldier's assessed score on the FMS Scoring Sheet.
- Note:
- 1. To achieve a score of 3, the:
  - Vertical line of the malleolus resides between mid-thigh and ASIS
  - The non-moving limb remains in neutral position
- 2. To achieve a score of 2, the:
  - Vertical line of the malleolus resides between mid-thigh and joint line
  - The non-moving limb remains in neutral position

3. To achieve a score of 1, the:

- Vertical line of the malleolus resides below joint line
- The non-moving limb remains in neutral position

4. The Soldier receives a score of 0 if pain is associated with any portion of this test. A medical professional should perform a thorough evaluation of the painful area.

NOTE (Tips for Screening):

- o The moving limb identifies the side being scored.
- o If there is difficulty finding the joint line, identify the line by flexing and extending the knee.
- o Make sure the non-moving limb maintains a neutral position.
- o Do not judge the pattern or interpret the cause of the score while testing.
- o Do not coach; this is not exercise. This means if there's fault in the execution, simply repeat the instructions, not offering corrections.
- o Was there pain?
- o When in doubt, score low.



Vertical line of the malleolus resides between mid-thigh and ASIS The non- moving limb remains in neutral position

> Functional Movement Screen (FMS) Active Straight-Leg Raise 3



Vertical line of the malleolus resides between mid- thigh and joint line The non-moving limb remains in neutral position

Functional Movement Screen (FMS)



Vertical line of the malleolus resides below joint line The non-moving limb remains in neutral position

## Functional Movement Screen (FMS) Active Straight-Leg Raise 1

6. Conduct the Trunk Stability Pushup Movement Pattern:

Note: PURPOSE: The trunk stability pushup is a unique, single-repetition version of the common floor-based pushing exercise. It is used as a basic observation of reflex core stabilization, and is not a test or measure of upper-body strength. The goal is to initiate movement with the upper extremities in a pushup pattern without allowing movement in the spine or hips.

Extension and rotation are the two most common compensatory movements. These compensations indicate the prime movers within the pushup pattern incorrectly engage before the stabilizers.

The push-up movement pattern tests the ability to stabilize the spine in the sagittal plane during the closed kinetic chain, upper body symmetrical pushing movement.

a. Direct the Soldier to assume a prone position with the arms extended overhead.

Note: During this test, males and females have different start positions. Males begin with their thumbs at the top of the forehead, while females begin with their thumbs at chin level. The thumbs are then lowered to the chin or shoulder level per the scoring criteria. The knees are fully extended, the ankles are neutral and the soles of feet are perpendicular to floor.

b. Direct the Soldier to perform one push-up in this position.

Note: The body should be lifted as a unit; there should be no sway in the spine during this test. If the Soldier cannot perform a pushup in the initial position, the hands are lowered to an easier position.

c. Direct the Soldier to perform the trunk stability push-up screen a maximum of three times.

d. Annotate the Soldier's assessed score on the FMS Scoring Sheet.

Note: If any of the criteria for a score of three are not achieved, the Soldier receives a score of two. If any of the criteria for the score of two are not achieved, the Soldier receives a score of one.

- 1. To achieve a score of 3, the:
  - the body lifts as a unit with no lag in the spine
  - males perform a repetition with thumbs aligned with the top of the head
  - females perform a repetition with thumbs aligned with the chin
- 2. To achieve a score of 2, the:
  - the body lifts as a unit with no lag in the spine
  - males perform a repetition with thumbs aligned with the chin
  - females with thumbs aligned with the clavicle
- 3. To achieve a score of 1, the:
  - males are unable to perform a repetition with hands aligned with the chin.
  - females unable with thumbs aligned with the clavicle

4. The Soldier (regardless of gender) receives a score of 0 if pain is associated with any portion of this test. A medical professional should perform a thorough evaluation of the painful area.

NOTE (Tips for Screening):

- o The Soldier should lift the body as a unit.
- o On each attempt, make sure the Soldier maintains the hand position and the hands do not slide down as the Soldier prepares to push.
- o Make sure the chest and stomach come off the floor simultaneously.
- o If pain is present in the clearing test, the Soldier receives a zero.
- o Do not judge the pattern or interpret the cause of the score while testing.
- o Do not coach; this is not exercise.
- o Was there pain?
- o When in doubt, score low.



The body lifts as a unit with no lag in the spine

Men perform a repetition with thumbs aligned with the top of the head Women perform a repetition with thumbs aligned with the chin

> Functional Movement Screen (FMS) Trunk Stability Pushup 3



Women with thumbs aligned with the clavicle

Functional Movement Screen (FMS) Trunk Stability Pushup 2



Men are unable to perform a repetition with hands aligned with the chin Women unable with thumbs aligned with the clavicle

Functional Movement Screen (FMS)

#### 7. Conduct the Rotary Stability Movement Pattern:

Note: PURPOSE: The rotary stability pattern observes multi-plane pelvis, core and shoulder girdle stability during a combined upper- and lowerextremity movement. This pattern is complex, requiring proper neuromuscular coordination and energy transfer through the torso. It has as its roots the creeping pattern that follows basic crawling in our developmental sequence.

The test has two important implications. It demonstrates reflex stabilization and weight shifting in the transverse plane, and it represents the coordinated efforts of mobility and stability observed in fundamental climbing patterns.

a. Direct the Soldier to assume a quadruped position with the FMS kit board on the floor between the hand and knees.

Note: The board should be parallel to the spine, and the shoulders and hips should be 90 degrees relative to the torso, with the ankles neutral and the soles of the feet perpendicular to the floor.

Before the movement begins, the hands should be open, with the thumbs, knees and feet all touching the board.

b. Direct the Soldier to flex the shoulder while extending the same-side hip and knee, and then bring elbow to knee while remaining in line over the board.

Note: Spine flexion is allowed as the Soldier brings the knee and elbow together.

This is performed bilaterally for a maximum of three attempts if needed. If one repetition is completed successfully, there is no reason to perform the test again.

c. (If a score of three is not attained) Direct the Soldier to perform a diagonal pattern using the opposite shoulder and hip in the same manner described above.

Note: During this diagonal variation, the arm and leg need not be aligned over the board; however, the elbow and knee do need to touch over it.

d. Conduct the Posterior Rocking Clearing Test.

Note: This movement is not scored; it is performed to observe a pain response. If pain is produced, a positive (+) is recorded on the sheet and a score of zero is given to the entire rotary stability test. We clear spinal flexion from the quadruped position, then rocking back and touching the buttocks to the heels and the chest to the thighs. The hands remain in front of the body, reaching out as far as possible. If there is pain associated with this motion, give a zero score. If the Soldier receives a positive score, document both scores for future reference.

e. Annotate the Soldier's assessed score on the FMS Scoring Sheet.

- Note: 1. To achieve a score of 3, the:
- Performs a correct unilateral repetition

2. To achieve a score of 2, the:

- Performs a correct diagonal repetition
- To achieve a score of 1, the:
   Inability to perform a diagonal repetition

4. The Soldier (regardless of gender) receives a score of 0 if pain is associated with any portion of this test. A medical professional should perform a thorough evaluation of the painful area.

NOTE (Tips for Screening):

- o The upper moving limb indicates the side being tested.
- o Make sure the unilateral limbs remain over the board to achieve a score of three.
- o The diagonal knee and elbow must meet over the board to achieve a score of two.
- o Make sure the spine is flat and the hips and shoulders are at right angles at the start.
- o Do not judge the pattern or interpret the cause of the score while testing.
- o Do not coach; this is not exercise.
- o Was there pain?
- o When in doubt, score low.



Performs a correct unilateral repetition

Functional Movement Screen (FMS) Rotary Stability Movement 3



Performs a correct diagonal repetition

Functional Movement Screen (FMS)



Inability to perform a diagonal repetition

Functional Movement Screen (FMS) Rotary Stability Movement 1

(Asterisks indicates a leader performance step.)

## **Evaluation Guidance:**

Positioning during the screening:

a. Where to stand: Where to stand during testing is a common question, because you might have three or four different criteria to review during each test, each putting you in a quandary of trying to be in two places at once. This is one of the reasons the Soldier will perform three (3) repetitions in each movement. If needed, this allows more than one opportunity to see the pattern. Two things to consider when observing the movements of the screen are distance and movement. Considering these two things will take care of most of the issues involved in trying to see everything during the screen.

(1) Distance: Step back from the Soldier to create enough distance, allowing you to see the whole picture at once. Most of the confusion over where to stand comes from being too close and too focused on one area of the test. Stand far enough away to allow a more global focus. View the entire movement and let the test criteria become evident.

(2) Movement: The Soldier being screened has three (3) attempts to perform each test, so don't be afraid to move around during the test. There are certain tests where standing to the side or facing the person provide the best vantage points. Take advantage of all three trials and move around if the score is not obvious from one point of view.

## **Evaluation Preparation:**

1. To administer the FMS correctly, you'll need to be familiar with the following bony structures or superficial landmarks.

- a. Tibial tuberosity
- b. Anterior superior iliac spine (ASIS)
- c. Lateral and medial malleolus
- d. The most distal wrist crease
- e. Joint line of the knee

2. Inventory and assemble the FMS Kit: The kit equipment is self-contained in a two-by-six box. There is a cap on one end of the two-by-six that can be removed so the pieces used for the FMS can slide out. The required components of the FMS Kit are:

- a. 1 each 2" x 6" box with caps on each end
- b. 1 each 4' PVC dowel rod
- c. 2 each 2' PVC dowel rods
- d. 1 each 2" PVC capped piece
- e. 1 each elastic band
- f. 1 each FMS Scoring Sheet for each Soldier
- g. Pen or Pencil

NOTE 1: Once removed, the two 2' PVC dowel pieces are inserted in holes in the 2 x 6. The 2' PVC dowel pieces must be forced into the two holes in the box in order to be snug. The 2" PVC capped piece is inserted into a small hole at the end of the 2 x 6, which balances the hurdle once it is upright. The elastic band is then placed around the two 2' PVC dowels, making the hurdle.

NOTE 2: 2 x 6 box—used to carry equipment and to add compensation for the deep squat test. It is also used in the inline lunge and rotary stability tests for reliability and for reference during testing.

NOTE 3: 4' dowel rod—used for the deep squat, inline lunge, hurdle step, shoulder mobility measurement and active straight-leg raise. The dowel is used in these tests for reliability and for more efficient scoring.

NOTE 4: The Hurdle is composed of the board serving as the base, the two 2' PVC dowel pieces and an elastic band that goes around the dowels. It is used for the hurdle step, and allows for body-relative testing and improvement in scoring accuracy.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Conducted the Deep Squat Movement Pattern:			
a. Directed the Soldier to assume the starting position by placing the instep of the feet in vertical alignment with the outside of the shoulders. The feet and toes were directly in front. The Soldier rested the dowel on top of the head and adjusted the hand position resulting in the elbows at a 90-degree angle.			
<ul> <li>b. Directed the Soldier to press the dowel overhead with the shoulders flexed and abducted and the elbows fully extended.</li> </ul>			
c. Directed the Soldier to descend slowly into the deepest possible squat position, heels on the floor, head and chest facing forward and the dowel maximally pressed overhead. The knees were aligned over the feet with no valgus collapse.			
d. Directed the Soldier to resume the starting position and asked the Soldier if he/she had pain with the movement.			
e. Repeated for three repetitions (if needed).			
f. Annotated the Soldier's assessed score on the FMS Scoring Sheet.			
2. Conducted the Hurdle Step Movement Pattern:			
a. Adjusted the height of the hurdle to the correct height by directing the Soldier to stand with the outside of the right foot against the base of the hurdle, in line with one of the hurdle uprights. (Mark "GO" or "NO-GO" only if this technique was used to adjust the hurdle height. Mark N/A if not used.)			
b. Adjusted the height of the hurdle to the correct height by measuring the distance from the floor to the tibial tuberosity, and raise the cord to that level. (Mark "GO" or "NO-GO" only if this technique was used to adjust the hurdle height. Mark N/A if not used.)			
c. Directed the Soldier to position the dowel across the shoulders, below the neck.			
d. Directed the Soldier to step over the hurdle to touch the heel to the floor while maintaining a tall spine, and return the moving leg to the starting position.			
e. Annotated the Soldier's assessed score on the FMS Scoring Sheet.			
3. Conducted the Inline Lunge Movement Pattern:			
a. Attained the Soldier's tibia length by either measuring it from the floor to the top center of the tibial tuberosity, or acquiring it from the height of the cord during the hurdle step test.			
b. Directed the Soldier to place the toe of the back foot at the start line on the kit.			
c. (Using the tibia measurement), directed the Soldier to put the heel of the front foot at the appropriate mark on the kit.			
d. Directed the Soldier to place the dowel behind the back, touching the head, thoracic spine and sacrum. The Soldier's hand opposite the front foot was grasping the dowel at the cervical spine. The other hand grasped the dowel at the lumbar spine. The dowel was maintained its vertical position throughout both the downward and upward movements of the lunge test.			
e. Directed the Soldier to lower the back knee to touch the board behind the heel of the front foot and return to the starting position.			
f. Annotated the Soldier's assessed score on the FMS Scoring Sheet.			
4. Conducted the Shoulder Mobility Movement Pattern:			
a. Determined the Soldier's hand length by measuring the distance from the distal wrist crease to the tip of the longest digit			
b. Directed the Soldier to stand with the feet together, and make a fist with each hand, thumbs inside the fingers			
c. Directed the Soldier to simultaneously reach one fist behind the neck and the other behind the back,			
maximally adducted, extended and internally rotated position with one shoulder, and a maximally adducted and externally rotated position with the other.			
d. Measured the distance between the two closest points of the hands to determine the Soldier's symmetrical reach.			
e. Directed the Soldier to perform the shoulder mobility screen a maximum of three times bilaterally.			
f. Conducted the Impingement Clearing Test.			
g. Annotated the Soldier's assessed score on the FMS Scoring Sheet.			
5. Conducted the Active Straight-Leg Raise Movement Pattern:			
a. Directed the Soldier to lie supine with the arms by the sides, palms up and the head flat on the floor.			
b. Found the point between the anterior superior iliac spine (ASIS) and the joint line of the knee, and placed a downlast this position, percendicular to the ground			
c. Directed the Soldier to lift the test leg while maintaining the original start position of the ankle and			
d. Noted the position of the upward ankle relative to the non-moving limb Once the Soldier reached the			
e. Directed the Soldier to perform the active straight-leg raise screen a maximum of three times bilaterally.			
f. Conducted the trunk stability press-up test			
g. Annotated the Soldier's assessed score on the FMS Scoring Sheet.			

6. Conducted the Trunk Stability Pushup Movement Pattern:		
a. Directed the Soldier to assume a prone position with the arms extended overhead.		
b. Directed the Soldier to perform one push-up in this position.		
c. Directed the Soldier to perform the trunk stability push-up screen a maximum of three times.		
d. Annotated the Soldier's assessed score on the FMS Scoring Sheet.		
7. Conducted Rotary Stability Movement Pattern:		
a. Directed the Soldier to assume a quadruped position with the FMS kit board on the floor between the hand and knees.		
b. Directed the Soldier to flex the shoulder while extending the same-side hip and knee, and then brought the elbow to knee while remaining in line over the board.		
c. (If a score of three was not attained), directed the Soldier to perform a diagonal pattern using the opposite shoulder and hip in the same manner described above.		
d. Conducted the Posterior Rocking Clearing Test.		
e. Annotated the Soldier's assessed score on the FMS Scoring Sheet.		

## Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary	Source Information
	FM 7-22	Army Physical Readiness Training (Change 001 05/03/2013 8 Pages	Yes	No	USAPFS
	Functional Movement Screen	The Functional Movement Screen (FunctionalMovement.com)	Yes	Yes	FunctionalMovement.com

## TADSS: None

## Equipment Items (LIN): None

## Materiel Items (NSN) :

Step ID	NSN	LIN	Title	Qty
	7520-01-127-0749		Writing Pen, Black, 4 Inch Long (DISCONTINUED WITHOUT REPLACEMENT)	15
	7520-00-281-5918		Clipboard File, 9 X 12-1/2 Inch, Composition Board Back	15

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. a. Based on its commitment to environmental protection, the Army will conduct its operations in ways that minimize environmental impacts. The Army will—

(1) Comply with all environmental laws and regulations. This includes federal, state, local, and Host Nation laws.

(2) Prevent pollution at the source by reducing, reusing, and recycling material that causes pollution.

(3) Conserve and preserve natural and cultural resources so that they will be available for present and future generations.

b. Units and installations will prepare an environmental risk assessment using ATP 5-19 and GTA 05-08-002.

c. Additionally, individuals instructing this task must ensure they are familiar with FM 7-22, Appendix D, pages D-1 thru D-5, Environmental Considerations prior to training this task.

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW current CBRN doctrine. Safety is a major consideration when planning and evaluating PRT programs. Commanders should use the composite risk management process for all physical fitness activities to ensure they do not place their Soldiers at undue risk for injury or accident. The commander should address:

- Environmental conditions
- Emergency procedures
- Facilities
- Differences in age
- Gender
- Level of conditioning of each Soldier in the unit
- Equipment Conditions (if applicable)

NOTE: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

## Prerequisite Individual Tasks : None

## Supporting Individual Tasks :

Task Number	Title	Proponent	Status
805P-COM-1107	Perform the Push-Up and Sit-Up Drill (PSD)	805P - Physical Readiness (Individual)	Approved
805P-COM-1103	Perform Four for the Core (4C)	805P - Physical Readiness (Individual)	Approved

## Supported Individual Tasks : None

## Supported Collective Tasks : None

## Knowledges :

Knowledge ID	Knowledge Name
805P-K-0101	Human Skeletal Bone Stress Injury
805P-K-0100	Human Skeletal Anatomy
805P-K-0102	Muscle Anatomy
805P-K-0109	Basic Mathematics
805P-K-0108	The Army PRT System
805P-K-0107	Army PRT Exercises, Drills, and Activities (Classroom)
805P-K-0106	Kinesiology
805P-K-0112	Army PRT Related Policies and Regulations
805P-K-0111	Army Terminology and Acronyms
805P-K-0148	Body Mechanics

## Skills :

Skill ID	Skill Name
805P-S-0105	Ability to recall information from previous lessons
805P-S-0104	Ability to organize information
805P-S-0103	Ability to form and ask questions
805P-S-0102	Ability to take detailed notes
805P-S-0101	Ability to comprehend (reading comprehension)
805P-S-0100	Ability to read instructions
805P-S-0108	Ability to record information (written and/or digital)
805P-S-0109	Ability to analyze information/data
S3641	Functional Movement Screen (FMS)
805P-S-0143	Observe Fitness Activity

ICTL Data : None