

**CLASSIFICATION TESTING PROTOCOL:
2016 DOD WARRIOR GAMES**

This page to be completed by the athlete prior to classification testing

ATHLETE DEMOGRAPHIC INFORMATION

Athlete Name: _____ Athlete Contact Number: (____) _____ - _____

Gender: Male Female

Athlete Team: USAF USA USMC USN USSOCOM

Disability Diagnosis/Diagnoses: _____

Prior Classification(s): _____

Next of Kin Contact Information: Spouse Mother Father Sibling

Other: _____

Name: _____ Telephone: (____) _____ - _____

ATHLETE'S REGISTERED SPORTS

(please circle or check appropriate box)

Yes or No Archery: Recurve Compound

Yes or No Cycling: Upright Handcycle Recumbent

Yes or No Shooting: Air Rifle Prone Air Rifle Standing Air Pistol

Yes or No Swimming: Freestyle Backstroke Breaststroke

50 M 100 M

Yes or No Sitting Volleyball

Yes or No Track: Sprint/Ambulatory Wheelchair

100M 200M 400M 800M 1500M

Yes or No Field: Standing Seated

Shotput Discus

Yes or No Wheelchair Basketball

***this page should be the front page; attach subsequent pages**



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The purpose of the 2016 DoD Warrior Games Classification Testing Protocol is to establish evidence based consistent and equitable classification for all athletes by appropriately trained and/or certified classifiers.

1. 2016 DoD Warrior Games CLASSIFICATION TESTING PROTOCOL

1.1 The 2016 DoD Warrior Games Classification Testing Protocol is to be performed for all athletes that are not in the OPEN or 6.0 Classifications and includes:

- 1.1.1 Passive Range of Motion (PROM)
- 1.1.2 Impaired Muscle Tests (IMT)
- 1.1.3 Balance Testing

1.2 Expectations of Impacted Athletes and Personnel:

1.2.1 Athletes:

- Athletes are expected to arrive 15 minutes prior to their scheduled appointment.
- Complete all information on page 1.
- Enter their name and team on the bottom of each page.

1.2.2 Medical Personnel:

- Medical Personnel must arrive familiarized with the 2016 DoD Warrior Games Rules and Classification Criteria.
- Medical Personnel should possess competency in testing procedures including the PROM and IMT, and Balance Testing.

1.2.3 Service Leads and Cadre:

- Service Lead or designee must schedule and enforce attendance of their respective Athletes' classification appointment.
- Service Leads will not allow athletes to compete until they have completed their Classification Appointment.

1.2.4 Coaches:

- Coaches must arrive familiarized with the 2016 DoD Warrior Games Rules and Classification Criteria.
- Coaches must allow athletes to complete their classification appointment.
- Coaches will not allow athletes to compete until they have completed their Classification Appointment.

2. 2016 DOD WARRIOR GAMES CLASSIFICATION PANEL

2.1. The 2016 DoD Warrior Games Classification Testing Panel is made up of experienced (familiar with the PROM and IMT) and unbiased personnel as defined below:

2.1.1. Two (2) Medical Personnel (must be from the list below)

- Physician (examples; Sports Medicine, Orthopedist, Neurologist)



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- Occupational Therapist
 - Physical Therapist
 - Biomechanist: The Biomechanist should possess a doctorate or master's degree and be trained in Newtonian mechanics.
- 2.1.2. One (1) Trained Volunteer/Recorder.
- The Trained Volunteer will serve as the recorder for all testing data as dictated by Medical Personnel.
 - The Trained Volunteer is expected to be familiarized with the e Classification Testing Form before participating in the testing procedure.

3. CLASSIFICATION TESTING PERFORMANCE

3.1 Recommended assessments: Each athlete who is not OPEN or 6.0 is required to have a physical and technical assessment, and may require an observational assessment.

3.1.1 Physical assessment:

3.1.1.1 The Classification panel should conduct a physical assessment of the athlete to establish that the athlete has an eligible impairment that meets the Minimum Disability Criteria.

3.1.1.2 Physical assessment tests are conducted in order to provide a measurement of impairment against a nominal athlete who does not have any relevant impairment (a relevant impairment being one that would fall within the classification categories.)

3.1.1.3 The physical assessment tests will address the following:

- Impaired Passive Range of Motion (PROM)
- Impaired Muscle Power
- Balance Testing
- Measurement of level of amputation

3.1.2 Technical Assessment: The classification panel should conduct a technical assessment of the athlete which includes

- Athlete's ability to perform in a non-competitive environment
- Specific tasks and activities that are integral to the athlete's sport(s)

3.1.3 Observation assessment: The classification panel may conduct observation assessment which shall include:

- Observation of the athlete performing the specific skills for their respective sport(s).
- Observation assessment may be conducted if the classification panel believes that they cannot complete the athlete's evaluation without observing the athlete in action.



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- Cannot provide a fair classification without observing the athlete in action.

3.2 Athlete testing:

3.2.1 The entire classification panel (Both medical providers and volunteers) must be present to perform classification testing.

3.2.2 Prior to any examinations or testing, medical personnel are expected to explain to the athlete in layman's terms:

- Why they are performing classification testing.
- What tests will be conducted.
- Some of the movements may be slightly painful.

3.2.3 Medical personnel should expect the athlete to complete as much of the range of motion or muscle test as possible.

- Additionally, even if the athlete thinks they cannot complete the requested test the athlete must attempt the movement
- The athlete will also be instructed to comply with all instructions and do the best they can with all tests.

3.2.3 Medical personnel will:

- Conduct testing in the prescribed order
- Protect the information entered on the 2016 DoD Warrior Games classification form on each athlete tested (page ____ of this document)
- Complete the 2016 DoD Warrior Games classification form on each athlete tested (page ____ of this document)
- Provide a copy of the 2016 DoD Warrior Games classification form on each athlete tested to the service lead (page ____ of this document)
- Maintain a copy of the 2016 DoD Warrior Games classification form on each athlete tested until completion of 2016 DoD Warrior Games (page ____ of this document)

4. CLASSIFIER DOCUMENTATION AND REFERENCES

4.1 Impaired passive range of motion/movement (PROM):

4.1.1 PROM requires the athlete to relax completely while medical personnel attempts to move the joint being testing through the available range.

4.1.2 The athlete should be relaxed and not attempting voluntary movement during these tests.

4.1.3 Criteria for impaired lower body PROM includes:

- Hip flexion deficit of > 60 degrees
- Hip extension deficit of > 40 degrees
- Knee flexion deficit of >75 degrees
- Knee extension deficit of >35 degrees



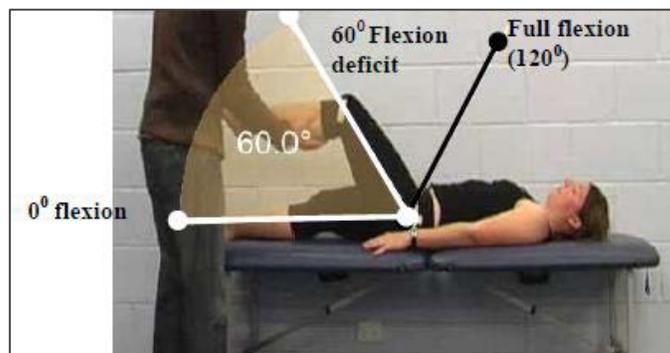
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- < 10 degrees ankle dorsi/plantar flexion available in the range between 10 degrees dorsiflexion and 25 degrees plantar flexion
- Secondary criteria for impaired lower body PROM includes:
 - Hip flexion deficit of > 45 degrees but < 60 degrees
 - Hip extension deficit of > 25 but < 40 degrees
 - Knee flexion deficit of > 55 degrees but < 75 degrees
 - Knee extension deficit of > 25 degrees but < 35 degrees
 - < 20 degrees ankle dorsi/plantar flexion available in the range between 10 degrees dorsiflexion and 25 degrees plantar flexion

4.1.4 Testing measurements for lower body PROM testing:

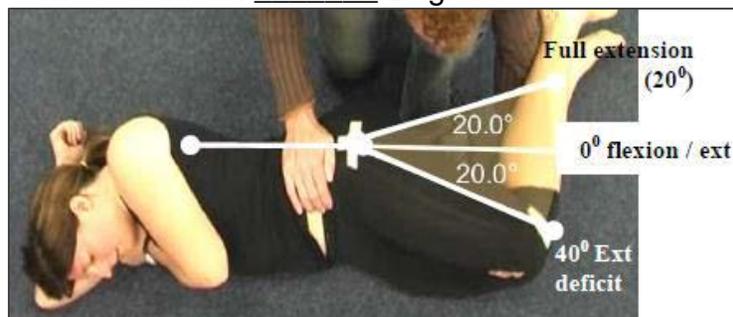
4.1.4.1 Hip flexion

Measurement: _____ Degrees



4.1.4.2 Hip extension. Normal 20 degrees

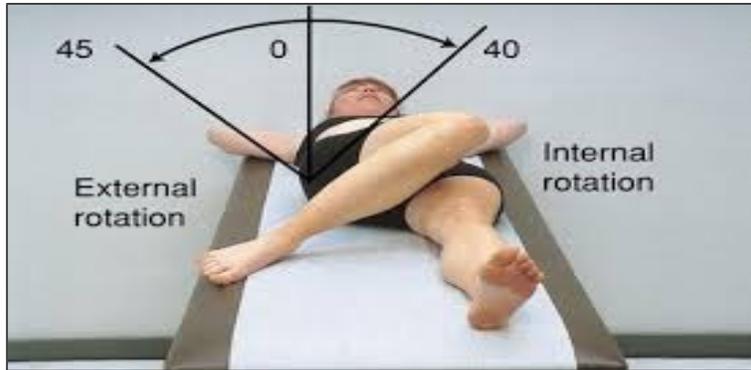
Measurement: _____ Degrees



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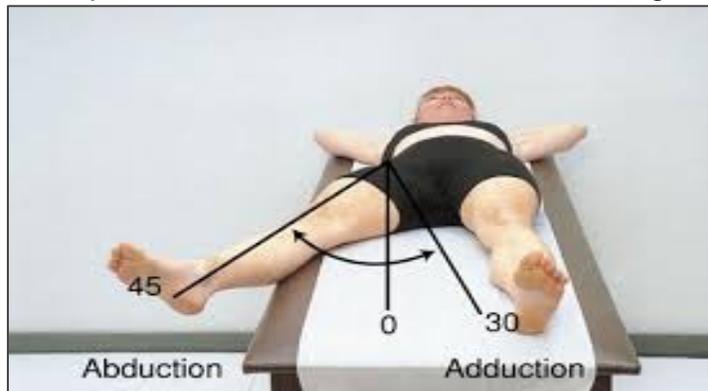
4.1.4.3 Hip rotation: Normal internal rotation

Measurement: _____ Degrees



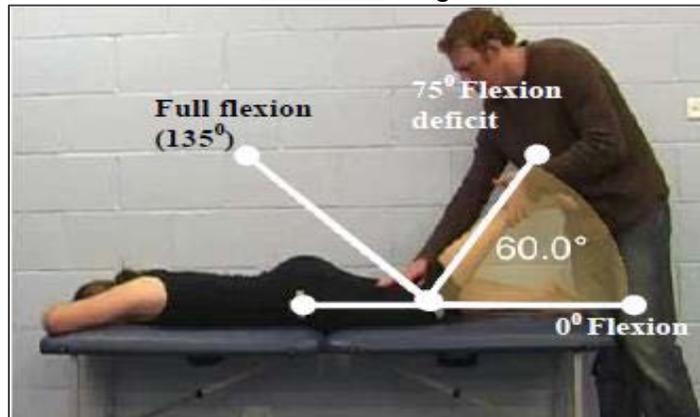
4.1.4.4 Hip abduction and adduction

Hip abduction measurement: _____ Degrees



4.1.4.5 Knee flexion

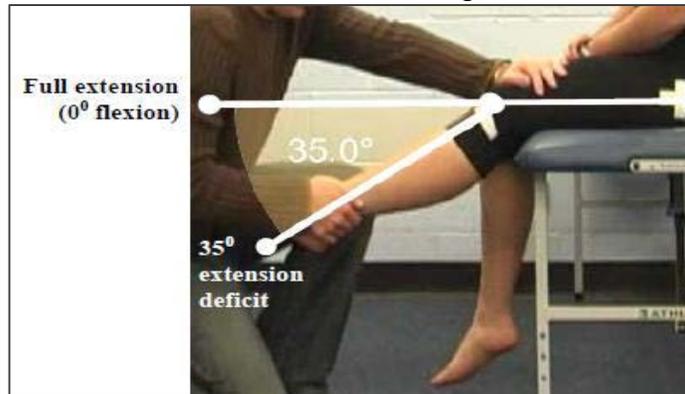
Measurement: _____ Degrees



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4.1.4.6 Knee extension

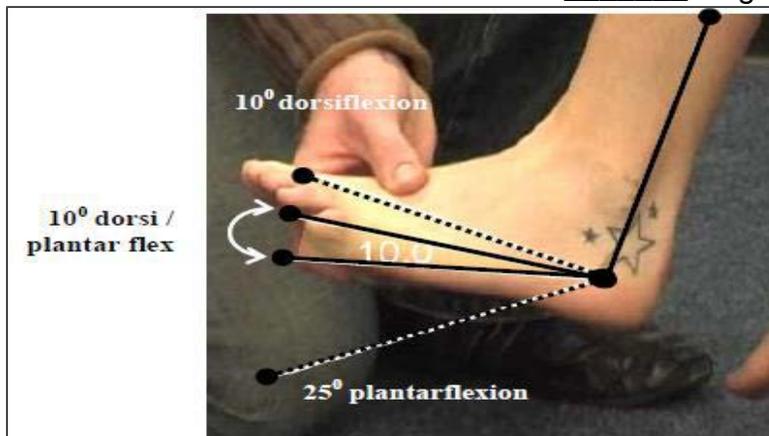
Measurement: _____ Degrees



4.1.4.7 Dorsiflexion and plantar flexion

Dorsiflexion measurement: _____ Degrees

Plantar flexion measurement: _____ Degrees



4.1.4.8 Ankle: Pronation & supination

Measurement: _____ Degrees



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4.2 Testing Measurements for upper body PROM testing:

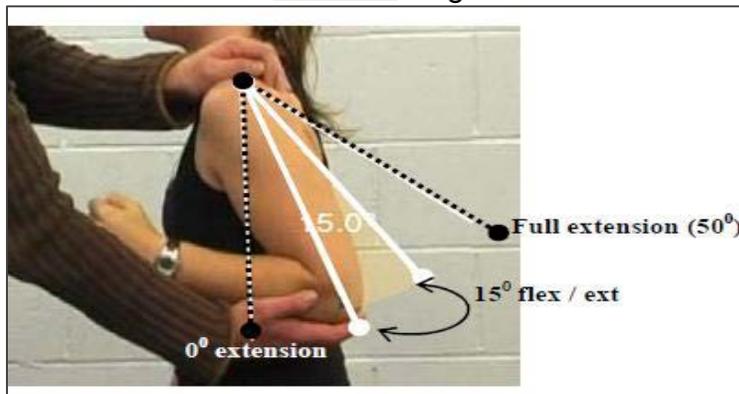
4.2.1 Criteria for Impaired upper body PROM includes:

- < 15 degrees shoulder extension available in the range between neutral and 50 degrees extension.
- Elbow flexion deficit of ≥ 130 degrees
- < 45 degrees shoulder flexion available in the range between neutral and 90 degrees extension.
- Elbow extension deficit of ≥ 70 degrees
- Secondary criteria for Impaired upper body PROM includes:
 - < 60 degrees available in the range between 0 degrees and 90 degrees abduction ≥ 45 degrees but ≤ 60 degrees
 - Elbow extension deficit of ≥ 70 degrees

4.2.2 Testing measurements for upper body PROM testing:

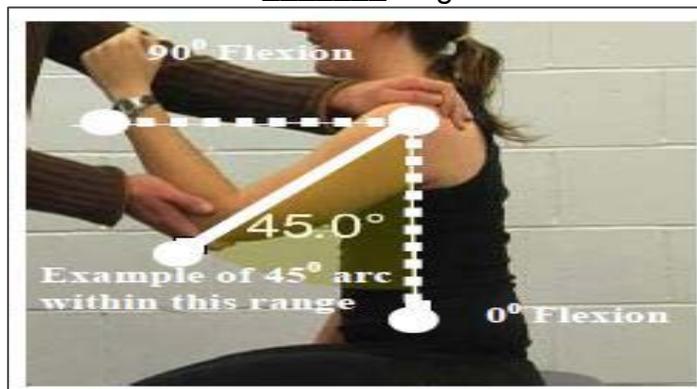
4.2.2.1 Shoulder extension (backwards)

Measurement: _____ Degrees



4.2.2.2 Shoulder flexion (forward)

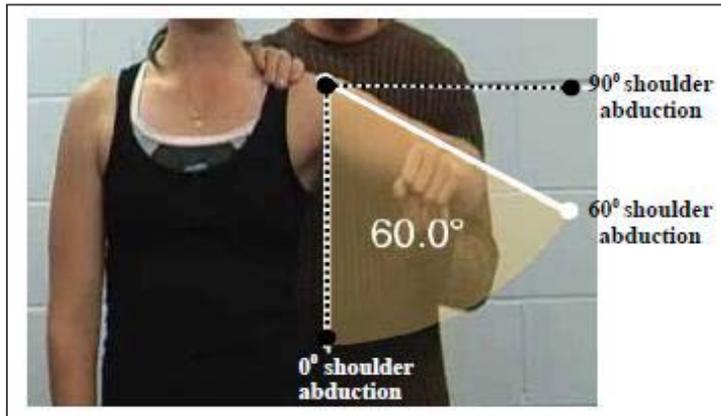
Measurement: _____ Degrees



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4.2.2.3 Shoulder abduction

Measurement: _____ Degrees



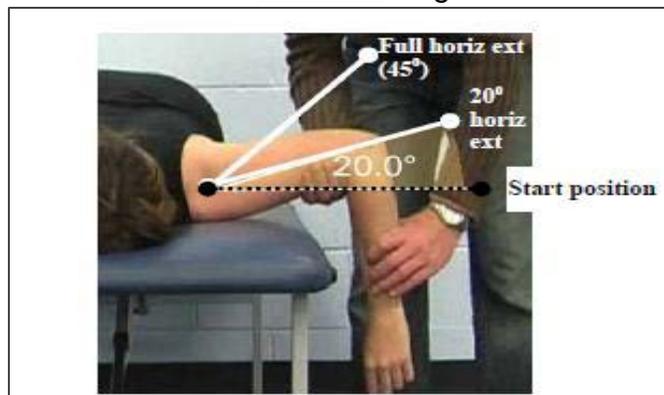
4.2.2.4 Shoulder horizontal flexion

Measurement: _____ Degrees



4.2.2.5 Shoulder horizontal extension

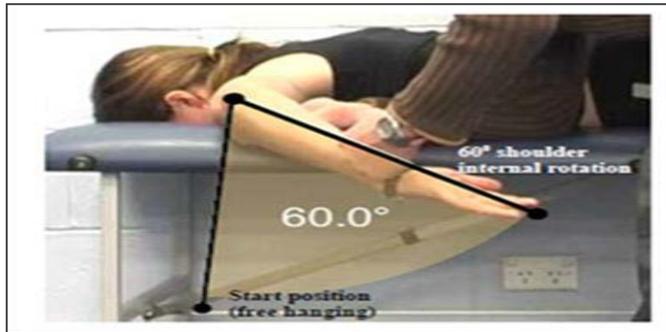
Measurement: _____ Degrees



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4.2.2.6 Shoulder internal rotation

Measurement: _____ Degrees



4.2.2.7 Shoulder external rotation

Measurement: _____ Degrees



4.2.2.8 Elbow extension

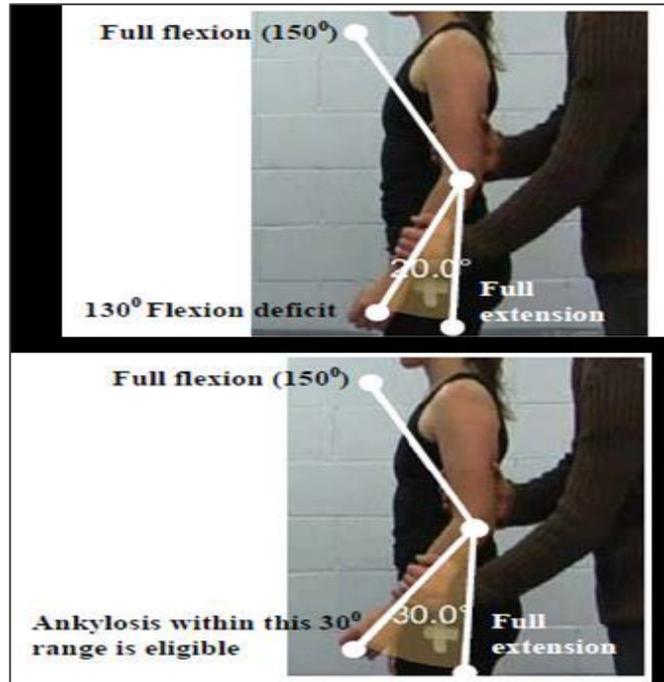
Measurement: _____ Degrees



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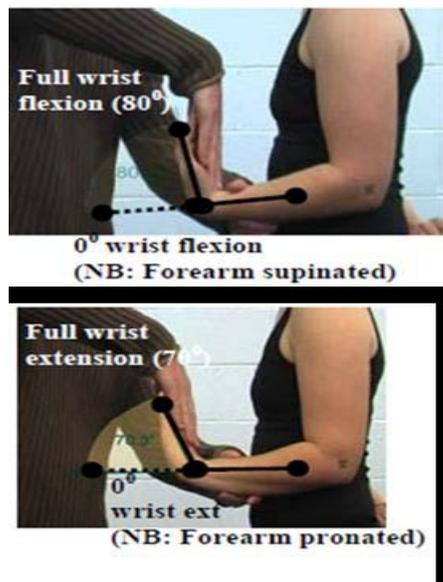
4.2.2.9 Elbow flexion

Measurement: _____ Degrees



4.2.2.10 Wrist Flexion & Extension

Measurement: _____ Degrees



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4.3 Impaired muscle testing:

4.3.1 Muscle power will be assessed according to the Daniels and Worthingham (D&W) scale published in 2002.

4.3.2 The D&W Scale Contains 6 levels ranging from Zero (0) to Five (5) and is defined in the Figure 13.

D & W Score	Score Definition
0 = Absent	No muscle activity (absence of muscle activity)
1 = Trace	Trace muscle activity but no movement of the limb
2 = Poor	Active movement with gravity eliminated (some movement against gravity may be possible, but not full range)
3 = Fair	Active movement through available ROM against gravity but no resistance
4 = Good	Active movement through available ROM, against gravity plus some resistance
5 = Normal	Normal muscle power through the available ROM

Figure 13: D&W Muscle Power Rating Scale

4.3.3 Documentation tool for athlete's muscle strength

Please Circle the number consistent with your findings

RIGHT	Upper Muscle Groups	LEFT
0 1 2 3 4 5	Hand/Wrist	0 1 2 3 4 5
0 1 2 3 4 5	Lower Arm	0 1 2 3 4 5
0 1 2 3 4 5	Upper Arm	0 1 2 3 4 5
0 1 2 3 4 5	Shoulder	0 1 2 3 4 5
0 1 2 3 4 5	Upper Back	0 1 2 3 4 5
0 1 2 3 4 5	Neck	0 1 2 3 4 5
RIGHT	Lower Muscle Groups	LEFT
0 1 2 3 4 5	Foot/Ankle	0 1 2 3 4 5
0 1 2 3 4 5	Lower Leg	0 1 2 3 4 5
0 1 2 3 4 5	Upper Leg	0 1 2 3 4 5
0 1 2 3 4 5	Hip/Pelvis	0 1 2 3 4 5
0 1 2 3 4 5	Lower Back	0 1 2 3 4 5

Figure 14: Athlete Muscle Strength Documentation Tool



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4.4 Balance Testing:

4.4.1 Tight rope walking:

Athlete takes 12-15 steps like they are walking on a tight rope

Score: _____ # steps

4.4.2 Single leg stand:

Stand on right leg for 15 seconds

Score: _____ seconds

Stand on left leg for 15 seconds

Score: _____ seconds

4.4.3 Single leg hops:

Hop on right leg only 10-15 times

Score: _____ # Hops

Hop on left leg only 10-15 times

Score: _____ # Hops

4.4.4 Side stepping:

Side step to right: Athletes faces forward then steps laterally to the right five (5) times without crossing feet

Normal Abnormal

4.4.5 Side step to left: Athletes faces forward then steps laterally to the left five (5) times without crossing feet

Normal Abnormal

4.4.6 Grapevines:

Grapevine to the right: Athlete performs the grapevine drill (crossing feet over one another while moving in the lateral direction). Should take 6-8 steps

Normal Abnormal

Grapevine to the left: Athlete performs the grapevine drill (crossing feet over one another while moving in the lateral direction). Should take 6-8 steps

Normal Abnormal



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4.4.7 High steps: Athletes take 12-15 steps while bring knee up to 90 degrees (also known as high knees)

- Normal Abnormal

4.4.8 Butt kicks: Athlete takes 12-15 steps while bringing heel to butt on each step.

- Normal Abnormal

5. CLASSIFICATION FORM COMPLETION STEPS:

5.1 Step 1: Upon completion of testing: The testing data must be transferred to the 2016 DoD Warrior Games Classification Form.

5.2 Step 2: The percentage (%) of deficit for PROM must now be calculated and the number value for that percentage (%) of deficit must be added to the charts

5.3 Step 3: Determine what sports the athlete has registered to compete in and mark these on the first page of the form.

5.4 Step 4 (if applicable): For amputees with no other injuries or medical issues, there is a chart that lists amputations and the corresponding classification on the first page of each sport. Circle the correct classification for each sport.

5.5 Step 5 (if applicable): For track and field athletes with, spinal cord injury, ortho or multiple injuries: Compare the PROM with the Primary and Secondary criteria listed in Paragraph 4.13 Lower and Upper Body and the IMT Criteria (Paragraph 4.3.3.) to determine classification.

5.6 Step 6 (if applicable): For swimming fill in the chart with the number score from the PROM and IMT and calculate the total points lost to determine classification.

5.7 Step 7: For cycling, shooting, sitting volleyball, wheelchair basketball compare the test results to the criteria listed and determine classification.

5.8 Step 8: When classifications are determined for all sports, place final classifications on first sheet of the 2016 DoD Warrior Games Classification Form on each sport line.

