



Definitions of Impairments Enabling Participation in Disabled Tournaments

These definitions have been created to give a proper and fair evaluation for participation. The general idea is that a person who has severe difficulty to play golf due to physical impairments is eligible to compete in a disabled golf tournament.

Section A1

Locomotor Disabilities

From a medical standpoint in general, diagnoses determine the treatment. The diagnosis in itself is of minor interest in determining the physical restrictions in daily life. Therefore, the magnitude of physical restrictions must be the qualifying factor for participation in tournaments for golf for the disabled. The conventional handicap system in golf provides a very good and fair way to compare different individuals with different impairments with regard to results, so they can play in one class. The only requirement is to decide whether the impairment meet the minimal disability criteria to qualify for the tournament. The physical impairment has to be either stationary (confirmed status) or variable (increasing or decreasing) (review status). Evaluation contains a physical examination, a functional golf profile status and an observation during competition.

To play golf, you are dependent upon the following functions:

- leg, range of motion, strength and length
- limb deficiency
- grip
- arm length
- shoulder range of motion and strength
- elbow range of motion and strength
- wrist range of motion and strength
- back range of motion
- vision
- neurological function

Major impairment in any of above mentioned functions, or in combination, will qualify for participation according to the following criteria:

Methods of Measuring

Functional Range of Motion in Golf (FROMG)

- Upper extremity the extended joint is in general measured as 0.
- The midway position between pronation and supination of the wrist is measured as 0.
- Shoulder in standing neutral position 0.
- Maximal abduction and elevation is measured as 180.
- The position between internal and external rotation is measured as 0.
- Lower extremity
- The hip joint in extended position is measured as 0.
- The knee joint in extended position is measured as 0.
- The movements of the ankle are measured as follows: the position between dorsal flexion and plantar flexion and between supination and pronation is measured as 0.
- The spine

- The neutral starting position is the generally accepted anatomic position with the body upright. This is measured as 0.
- The range of motion of the spine is from this starting point lateral bending of the spine to the left and right, rotation, flexion and extension.

Measurement of the Amputated Limb:

The measurement must be done from the most distal point of the amputated limb to the next anatomical point above. The relevant part of the other arm or leg must also be measured.

Muscle Testing (power scale):

0 - Total lack of voluntary contraction

1 - Faint contraction without any movement of the limb (trace, flicker)

2 - Contraction with very weak movement through full range of motion when gravity is eliminated (poor)

3 - Contraction with movement through the complete joint range against gravity

4 - Contraction with full range of movement against gravity and some resistance (good)

5 - Contraction of normal strength through full range of movement against full resistance

(Daniels and Worthingham 1980)

Grades 4-, 4, 4+ may be used to indicate movement against slight, moderate and strong resistance respectively.

Australian Spasticity Assessment Scale:

0 - No catch on rapid passive movement (RPM)

1 - Catch occurs on RPM followed by release; there is no resistance to RPM throughout rest of range

2 - Catch occurs in second half of available range (after halfway point) during RPM and is followed by resistance throughout remaining range

3 - Catch occurs in first half of available range (up to and including halfway point) during RPM and is followed by resistance throughout the remaining range.

4 - When attempting RPM, the body part appears fixed but moves on slow passive movement.

Neurological Coordination Tests/Ataxia:

- Finger to nose test: the Classifier presents his index finger and asks the player to touch his nose with his index finger from the crucifix position with closed eyes.
- Finger to finger test: the Classifier presents his index fingers and asks the player to touch his index fingers with closed eyes.
- Finger to toe test: the Classifier presents his index finger and asks the player to touch his toe with his index finger with closed eyes.
- Heel Draw test: draw the heel of one leg along the length of the contralateral leg, from ankle to knee and then in the reverse direction.
- Romberg test: the player stands with his feet together and both arms in horizontal position in extension. When the player closes his eyes and is not able to stand still the Romberg sign is positive
- Tandem Romberg: straight line heel to toe walking

Impaired Functional Passive Range of Motion in Golf (FROMG)

Lower limb:

Hip: full flexion 130° full extension 20°

FROMG extension - flexion 0-35-130° = eligible

Knee: full flexion 135° full extension 0°

FROMG extension - flexion 0-30-135° = eligible

Ankle: dorsal flexion 20° plantar flexion 40° if the only impairment is a stiff ankle, the player is not eligible.

Upper limb:

Shoulder: full flexion 150° full extension 50° full ext rotation 60° full in rotation 95° full abduction 180° full adduction 60°

The FROMG is always measured including movements between scapula and thorax.

FROMG: adduction or abduction $< 30^{\circ}$ = eligible rotation $< 45^{\circ}$ = eligible flexion $< 20^{\circ}$ = eligible
Impaired shoulder extension is not eligible

Elbow: full flexion 150° full extension 0° full pronation 90° full supination 90°

FROMG flexion-extension in the traject > 45 to 150° = eligible pronation and supination < 45 (on at least one side) = eligible

Right-handed players

Flex the right elbow $< 90^{\circ}$ = eligible flex the left elbow $< 60^{\circ}$ = eligible

(Reverse for left-handed players)

Wrist: dorsal flexion 60° palmar flexion 75° Total radio- and ulnar deviation 70°

- right handed players R side

dorsal flexion $< 10^{\circ}$ AND radio - ulnar deviation $< 5^{\circ}$ = eligible

(Reverse for left-handed players)

Back and Cervical Spine:

Measurement has to be taken with a fixed pelvis. Rotation of the back is fundamental in a golf swing!

Rotation thoraco-lumbar $< 10^{\circ}$ = eligible Rotation cervical spine $< 20^{\circ}$ = eligible

Other impairments such as extension and flexion and side to side movements of the thoraco-lumbar spine do not qualify.

- In all cases reports from International Classifier or Chief Classifier are compulsory

Impaired Muscle Power (Scale: Daniels-Worthingham)

Lower Limb:

Hip: Reduction of strength below 3 in abduction, extension and flexion will be eligible

Knee: Reduction of strength below 3 in flexion and extension will be eligible

Upper Limb:

- **Shoulder:** Reduction of strength < 3 in abduction, adduction, rotation and flexion will be eligible.
- **Elbow:** Reduction of strength < 3 in flexion, extension, pronation and supination in the same elbow will be eligible.
- **Wrist:** Reduction of strength < 3 in dorsal flexion, in radio deviation and ulnar deviation in the right hand of the right-handed player and left hand for the left-handed player will be eligible on both sides!

Grip:

Complete lack of grip will qualify.

Lack of sensation involving the median and ulnar nerve on both sides will qualify.

Leg Length Difference

Leg length difference should be at least 20 cm to qualify. Arm length difference should be at least 15 cm to qualify.

Short Stature

When both legs are short the length of the person and the legs are to be given in the report in cm, measured as described on the Measurement of Amputated Limb Form. The leg length has to be measured between the trochanter major and the medial malleolus. When both arms are short the length of the person and the arms are to be given in the report in cm, measured as described on the Measurement of Amputated Limb Form.

Limb deficiency: see Measurement of Amputated Limb Form

Lower Limb

- An amputation on Syme level or above on at least one side will be eligible.

Upper Limb

- amputation of any part of the upper limb to be eligible as follows:
- 2 digits of 4 fingers amputated in one hand

- 2 digits of 6 fingers in two hands
- 3 fingers of one hand amputated incl. the thumb

Neurological Disorders

Hypertonia:

Measurement of spasticity is done by the Australian Spasticity Assessment Scale.

Monoplegia: spasticity grade 2 or more in upper limb will be eligible

Hemiplegia: spasticity grade 2 or more in upper limb and balance problems in lower limb on affected side will be eligible

Diplegia: spasticity grade 2 in lower limbs but able to stand and swing and walk is eligible.

In cases of doubt the player has to be observed by the Classifier during training or competition.

Ataxia

Ataxic movement must be demonstrable and clearly evident during classification.

Clearly evident ataxia should be observable during at least one of the following tests:

- Finger to Nose test
- Finger to Finger test
- Finger to toe test
- Heel draw test
- Tandem Romberg
- Walking
- Romberg test

Athetosis

Athetosis must be demonstrable and clearly evident during classification.

Clearly evident athetosis is unwanted movement and posturing that is characteristically athetoid and is observable in one of the following test:

- Involuntary movements of the fingers/toes or upper/lower extremities, despite the person trying to remain still
- Inability to hold the body still, swaying of the body.

Hearing impaired, cardiopulmonary disorders, impairments due to normal aging and mental disorders so far are not eligible to play in disabled golf competitions.

Cumulative Disorders

In some cases there are multiple disorders, which do not qualify solely, but cumulatively result in severe difficulty to perform a normal golf swing, than the golfer can be eligible.

As this is the first year for this event, the classification process is still in development in Canada. In as such we do not at this time have a medical officer available to perform classifications.

Therefore at this time it will be the Board of Directors of CAGA that will make the final decision of the inclusion or exclusion of a player's application to compete in this year's event.

Functional Status Reported

If for instance an orthosis increases the degree of impairment, it is the status with the orthosis applied that has to be given to the player for reason that on that moment it is the condition in which he is going to play.

Permanently Wheelchair Bound

Unfortunately we are unable to accept wheel chair bound participants in this year's event.

The player permanently in a wheelchair with a normal grip and swing in at least one hand and arm is eligible for golf. The player must have a helper to push him between the shots.

Golf Club Aids

Investigation and observation always takes place with all the aids and supports the golfer needs to play normally in competition. Assuming that all competitions are played to the RCGA handicap system, the most significant aspect is that the aids, support and assistance is taken into consideration when assessing the handicap. The provided aids, support and assistance have to be in accordance with the Modification of the Rules of Golf for Golfers with Disabilities as published by The Royal and Ancient Golf Club of St. Andrews.

Use of Golf Cart

All players are entitled to the use of a golf cart in CAGA events.

Section A2**Impaired Vision**

Blindness or vision equal or below 0,1 (B3, 6/60 Snellen) on the best side after compensation with a lens will qualify. Reports from both a MD specialized in eye illnesses and Optician are compulsory.

Section A3 (in progress)

Mental disorders do not qualify at this time.

Section A4

Impaired hearing does not qualify at this time.

Code of Conduct/Code of Ethics

All players are subject to the Code of Conduct and Code of Ethics guidelines.

Decisions

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