

**INTERNATIONAL
WHEELCHAIR RUGBY
CLASSIFICATION
MANUAL**

Started October 1996
Revised November 1999

Donation to I.W.R.F Classification Commission \$10.00

REFERENCES:

Daniels and Worthingham. Muscle Testing: Techniques of manual examination. Philadelphia: W.B. Saunders, 1980.

Curtis, Kathleen. MA, PT, NWAA Medical Classification Trainer's Workshop Handbook Colorado Springs: 1987

ACKNOWLEDGEMENT

This manual would not have been possible without the original contribution of Diane Bulger-Tsapos and Anne-Marie Glen.

MUSCLE STRENGTH TESTING SCALE:

Muscles are graded on a five point scale as described in Daniels and Worthingham.

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 with gravity eliminated (poor)
3. contraction with movement through the complete joint range of motion against gravity (fair)
4. contraction with full range of movement with moderate resistance (good)
5. contraction of normal strength through full range of motion against full resistance (normal)

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Eligibility for classifiers

1. Classifiers are individuals (physicians/therapists) with formal training in neuromuscular evaluation and testing.
2. The classifier must have experience in the evaluation of the physically disabled individuals, especially those most common in wheelchair rugby (S.C.I, Polio)
3. The classifier must have knowledge of wheelchair rugby/ sports and/or willingness to increase their knowledge through watching the sport.
4. The classifier must demonstrate competence in manual muscle testing of the upper and lower extremities and trunk.

Levels of Classifiers (Certification process)

There are four levels of certification for classifiers.

Level 1 (Appointed by head classifier of own country)

1. Sign code of ethics.
2. Attend a basic classification workshop –formal and informal.
3. Approval of National Association.

Level 2 – National classifier (Appointed by head classifier of own country)

1. Performs a complete bench test independently with the ability to explain findings to other grade 3 and 4 classifiers.
2. Seeks guidance when needed.
3. Begins to explain findings to athletes with another level 3 or 4 classifier present.
4. Demonstrate contact hours with rugby (for one year minimum) - log book.
5. Perform complete classification process (bench test and observation) independently and provide explanation of findings to classification team, athletes, coaches etc.
6. Communicates with H.C. or zonal president regarding classification issues.

Level 3 –Zonal classifier (Appointed by zonal president)

1. Knowledge of written and spoken English.
2. Endorsed by zonal classification president.
3. Demonstrates a minimum of 2 years contact years with rugby and served as a level 2 classifier.
4. Log book sent to zonal president annually by 31st March, or by request.
5. Seeks guidance when necessary.
6. Instructs at a basic classification workshop.
7. Participate in a protest panel or in making a player ineligible.
8. Demonstrates increasing responsibility to rugby and classification issues.
9. Has been H.C. for a tournament with 6 or more teams participating.
10. Demonstrates organisational and administrative skills.

Level 4 – International classifiers (Appointed by two level 4 classifiers of different zones)

1. Demonstrate minimum of three years involvement with rugby, has served as a level 3 classifier.
2. Has acted as H.C. at Type A or Type B tournament.
3. In each quadrennium must attend one event, either zonal or world championships or paralympics.

4. On going involvement in the supervision, training and education of classifiers.
5. Involved in a protest panel at Type A or Type B tournaments.
6. Attend an advanced classification workshop.
7. Active participation in classification commission meetings held at Type A or Type B tournaments.
8. Acts as a certifier of other classifiers at Type A or Type B tournaments.
9. Respectful and courteous of language and cultural differences amongst classifiers.

NATIONAL HEAD CLASSIFIER (appointed by own country)

- 1 Maintains up to date charts of players.
- 2 Prepares and maintains up to date national alpha list.
- 3 Responsible for communicating with zonal president.
- 4 Required to communicate with zonal president re: log book and alpha list.

ZONAL PRESIDENT (elected by zone, ideally should be a level 4 classifier)

- 1 Can certify and appoint level 3 and 4 classifiers at type A and type B tournaments.
- 2 Checks log books of level 3 and 4 classifiers.
- 3 Has the authority to gain verification of log books within zone.
- 4 Ensures that zonal alpha player list is prepared and updated twice a year and sent to classification president by 1st March and 1st September.
- 5 Is involved and communicates with zonal executive committee, and communicates with other national H.C.'s within zone.

CLASSIFICATION AT TOURNAMENTS

TYPE A TOURNAMENT: International class awarded.

TOURNAMENTS: Paralympics; world championships and zonal championships if held 1 year prior to paralympics.

N.B. All these are IWRP sanctioned tournaments.

PANEL: 7 classifiers from at least 5 countries and 2 zones. At least 3 of these classifiers need to be level 4 and at least 2 need to be level 3.

An international class will be awarded. A permanent international class will be awarded when a player has been seen 3 times within 4 years with no change of class occurring.

TYPE B TOURNAMENT: Zonal class awarded.

TOURNAMENTS: Zonal championships (if held other than 1 year prior to paralympics) ;
International championships.

PANEL: 7 classifiers from 3 countries and 1 zone. At least 1 of these classifiers needs to be a level 4 classifier and at least 1 needs to be a level 3 classifier.

If it is desired that an international class is to be awarded then the panel criteria for type A tournaments must be fulfilled.

An international class is more important than a zonal class. An international class cannot be changed at a type B tournament. International class supersedes a zonal class. If players have already been awarded an international class they do not need to be seen by the zonal classification panel. Court observations and remarks may be communicated to zonal president.

A permanent zonal class will be awarded if a player has been seen 3 times in 4 years without a change of class occurring.

TYPE C TOURNAMENT:

TOURNAMENTS: National or club tournaments.

PANEL: At least 3 classifiers, at least 1 will be level 3 or level 4. All levels of classifiers may participate.

An international or zonal class cannot be changed at a Type C tournament.

SANCTIONED CLUB TOURNAMENTS;

If it is desired to give an international class the panel criteria for type A tournament must be met.

CLASSIFICATION CHECKLIST FOR TOURNAMENT ORGANISATION

2-3 MONTHS PRIOR

- Identify tournament location
- Identify and confirm classification panel
- Notify tournament director of panel selected and identify, or assure tournament director makes travel arrangements at this time in accordance with next item
- Establish date and time for classification based on tournament play schedule. Notify tournament director
- Notify tournament director of needs:
- Classification room reserved for above times
- Accommodation for classifiers
- Local transportation for classifiers
- Notify the relevant classifiers for the teams attending the tournament, and request most recent classification form for all players in all teams. The classification forms should be sent to H.C or organising committee. In some cases it may be obtained from zonal classification presidents.
- Organise classification cards or IWRF cards.

6-8 WEEKS

- H.C. should send out information to all team managers: pages 10-14: time limits for protests; When changes in class will occur; when is end of 'pool play' or end of 'round robin' play
- Request tournament rota from tournament director, establish number and names of players requiring full classifications, as well as those under review by cross referencing rosters, Alpha list. Fill in information on tournament classification schedule/report form and establish specific times for individual/team. Be sure above times correspond realistically with team travel arrangements and playing schedule.
- Provide copy of above form to Tournament Director with copies to be sent immediately to all teams attending.
- Contact all classifiers to inform and confirm attendance, travel arrangements, accommodation and classification schedule

1 WEEK PRIOR

- Make copies of forms and gather office materials needed.

H.C. RESPONSIBILITIES

- After pre-tournament classification give all teams of all players classification.
- Inform teams during the tournament of any changes in class. Head referee must also be also be informed.
- Classification cards must be changed as necessary.
- Within 10 days of the tournament finishing write a tournament classification report (refer Pages 17, 30, 31 32).

CLASSIFICATION OF THE WHEELCHAIR RUGBY ATHLETE

Classifiers will utilise the basic spinal cord injury classification as a guideline. This means that in addition to a manual muscle test, functional trunk test and functional movement test, an athlete will be asked about sensation, spasticity and contractures. The enclosed wheelchair classification form should be used for each athlete's classification. For athletes who have muscle weakness in their arms that is different from spinal cord injury, i.e. polio, the athlete must show weakness in the shoulder of less than 4-5 (if hand strength is normal) to be eligible. Each athlete will be considered individually and classified appropriately to ensure fair competition in the sport of wheelchair rugby. The classifier may request that the athlete demonstrate ball handling, catching, passing, dribbling and wheelchair manoeuvres such as starting, stopping and directional changes. In addition, observation of the athlete during court play occurs.

PLAYER CLASSIFICATION BOARD MEMBERS (PCB)

1. PCB is a wheelchair rugby athlete who understands the classification system. The PCB appreciates the characteristics and differences of the different classes. The PCB may assist classifiers with their observations and decisions. They will serve in an advisory capacity.
2. Knowledge of classification system through attendance in workshops and local/national/international classification.
3. Player should be able to explain the classification system in terms understandable to the players.
4. Player must be diplomatic and tactful.
5. Player should be able to keep information received at classification confidential.
6. The players should have trust in the chosen PCB.
7. At the start of the tournament the classification panel selects appropriate PCB's.
8. These individuals may be present during the neuromuscular/functional testing process of classification, utilised for their expertise in situations such as protests, development and evaluation of new systems.
9. The PCB member will serve in an advisory capacity but who's vote shall not enter into the actual determination of the players classification.
10. During events the PCB members will be involved in classification meetings, but will not be a voting member at these meetings.
11. PCB's are invited to classification meetings.
12. At the start of the tournament PCB's should be selected and asked to participate by the team of classifiers.

IWRF CLASSIFICATION COMMISSION

PURPOSE AND FUNCTION OF IWRF CLASSIFICATION COMMISSION

1. The IWRF Classification Commission duties consist of evaluating current classification systems, making improvements and clarifications of systems which are sports specific.
2. The IWRF Classification Commission board shall assist with any protest of a player's classification according to classification Protest procedures.
3. Classification Commission responsibilities:-
The classification board reserves the right to review a player at any time
4. To develop a training and certification process so that persons can become certified IWRF classifiers. This will include dedicated materials, classification experience with a mentor, skills observation and testing, and a written test.
5. During tournament play, decisions can be made by the head classifier regarding classification issues or problems.

COMPOSITION OF THE CLASSIFICATION COMMISSION

1. The IWRF Classification Commission shall be composed of a chairperson and one member from each country currently involved with wheelchair rugby.
2. Members will be individuals who are classifiers.
3. In addition to the above members, the classification commission will select a player from each country to serve as a PCB in an advisory capacity. These individuals may observe the neuromuscular/functional testing process of classification; be utilised for their expertise in situations such as protests, development and evaluation of new systems, etc.

CLASSIFICATION PROCEDURES

PLAYER ELIGIBILITY

1. All team players must be deemed eligible according to the IWRF classification system. Consideration shall be given to the special needs and requirements of the sport of wheelchair rugby.
2. A player's international classification will last 5 years after which time the player will be re-examined.

CLASSIFICATION PROCEDURES

1. IWRF Classification requires that the athlete must be classified by a panel of 3 certified classifiers.

2. Classification Types :
 - a) T=Temporary
Athlete seen by an incomplete panel, may be at a local or national level.
 - b) R=Review
Athlete must be seen in play by panel. The R can be added at anytime based on new observations or information. When R is removed at an international tournament this will be considered as 1st. international tournament. Same rule applies for zonal class.
 - c) N=New injury
Progressive disease, new player. Athlete must be re-classed in one year. Class can be changed at any time.
 - d) I=International.class.
Athlete has been classified at a Type A tournament.
 - e) P=Permanent class.
Athlete has been classified with the same class at 3 Type A tournaments within 4 years.
 - f) Zonal class E = European
A= American
O= Oceania
Athlete has been classified at Type B tournament, with the same class within 4 years.
- 3 The athlete may request a PCB to be present.
- 4 The athlete will be classified without other athletes, a coach/team manager/translator maybe present.
- 5 The classification schedule will be available prior to tournament play and it is the responsibility of the team coach and players to arrive in a timely manner.

PLAYER RESPONSIBILITIES

1. Arrive at their assigned time in their playing chair-NO EXCEPTIONS
2. Give full effort and co-operation
 - a) In the event that an athlete enters the classification room under the influence of any performance altering substance, they will be asked to leave without receiving a classification; therefore will not be eligible to play.
 - b) Any athlete perceived as not fully co-operating with the classification process:
 - i) may not be given a classification
 - ii) may be disqualified from the tournament
 - iii) may have their class changed at any time
 - iv) after the tournament they may not be awarded an international class, though a zonal class maybe awarded. These decisions will be discussed with the athlete's national H.C.
 - c) It is the responsibility of all parties involved in any classification procedure to educate themselves regarding proper procedure and assure this procedure is followed.
3. Bring passport photo to classification session for classification card.
4. Once the player receives their official IWRF classification card, it is their responsibility to bring the card to every tournament. Failure to bring the card to tournaments results in a \$10.00 fine per player. Loss of card will result in a \$10.00 replacement fee .It is the player/coach responsibility to adhere players official number on the outside of the laminated card.

IWRF PLAYER CLASSIFICATION PROTEST PROCEDURE

1. If a player wishes to protest his own classification he must have the support of his team coach, who must sign the classification protest form.
2. The process can be initiated through the IWRF classification commission or at any IWRF sanctioned international tournament.
3. Protest forms may be obtained from the tournament director or head classifier.
4. The form must describe concisely and clearly written in English the reasons for the protest. The form, plus US \$50 or local equivalent, should be given to the tournaments head classifier. This money will be returned in the event of a successful protest. The head classifier shall try and ensure that the source of the protest is kept confidential.
5. Any protests of any players (nation's own or of another nation), can be made:
 - a) no later than 4 weeks before the start of the tournament. The player's team manager or contact person will be informed as soon as possible.
 - b) by the end of the first round of games in 'pool play' or
 - c) up to the time that each team has played once in a 'round robin.' (see item 8&9)
6. The IWRF Classification Commission will assemble a classification protest panel which will consist of:
 - a) 3 Classifiers from 3 different countries and two zones (if player has I class), plus H.C.
 - b) PCB – if available. Advisory capacity only
 - c) IWRF executive board member (EBM) and/or tournament director will be informed.

In the interest of the player any protest procedure will be ideally handled by a panel of classifiers with equal or greater expertise \ level compared to those involved with the player's previous classification.

7. Ideally the head classifier will investigate the validity of the protest by checking the alpha list, looking at previous charts and \ or calling the zonal classification president to clarify information.
8. An initial observation session may take place without the player's notification.
9. After item 8 has occurred, the athlete and/or team coach or team representative will then be Informed of the protest.
10. On-court observations may be necessary. The athlete may then be evaluated in a bench test session, which is conducted by the protest panel. Zonal president or IWRF classification president may also be present. The athlete may have his coach present. PCB may also be present.
11. A decision may be made when appropriate. If the protest panel need to vote then a majority decision is necessary. It is an open vote.

IWRF PLAYER CLASSIFICATION PROTEST PROCEDURE

Cont.....

12. If a decision has not been made by the end of the tournament the protest shall carry over to the next equivalent IWRF tournament.(refer page 6).
13. Any change of class occurring as a result of a protest will take effect at any time prior to the start of the semi-finals, or at the end of the tournament. The exception to this is for player's with a previous Type A Int. class . For these players if the protest was lodged during the tournament any change of class takes effect at the end of the tournament. Player's with a previous Type A Int. class their class can be changed if the protest was lodged at least 4 weeks prior to the tournament.
14. The maximum number of protests per athlete at the international level is 3 times in 4 years.
15. Any money kept goes to the IWRF.

OTHER CHANGES IN CLASSIFICATION

- 1 A player attending his/her first Type A tournament, their class may be changed at any time during the tournament. Any change of class takes effect immediately. This includes ineligibility.
- 2 If a player with a previous Type A international class,(who is not under review) is found to be ineligible, their ineligibility occurs at the end of the tournament.
- 3 A review player's ineligibility occurs immediately.
- 4 If a player is attending a Type A tournament with a previous Type A tournament class, that is, It is their 2nd or 3rd Type A tournament, and they were not under review prior to the start of the tournament, their change of class occurs at the end of the tournament.
- 5 Review (R) or New (N) players may have their class changed at any time and this will take effect immediately.
- 6 Once a player has been seen by an international panel, if his country's H.C wishes to change his classification this must be discussed with the zonal classification president and the classification commission president.
- 7 Uncooperative/ unclassifiable players may have their class changed at any time. (see page 10)

IWRF CLASSIFICATION PROTEST FORM**Details of person submitting form – (Coach or Team manager)**

Name : _____

Country : _____

Position : _____

Signature : _____

Date & Time : _____

Name of Protested Player : _____

Team/Country : _____

Classification : _____

Date & Time Received : _____

Protest Fee Paid : _____

Signature of person receiving the form : _____

N.B - Protest fee will be returned if protest is ruled in favour of individual/team protesting**Decision of the Protest Jury**

Date & Time : _____

Names : _____

Signatures : _____

Protest Fee Returned ? Yes No

This form must be returned to the Head Classifier

Details of protest (use separate sheet if necessary)
Coach/Team Manager to fill in

Signature

Classifiers comments protest panel

Signature

CLASSIFICATION MECHANICS

0.5 Point

Unopposed biceps push with abd and IR at shoulder
 Forward head with bob when pushing
 Uses back 1/4 of wheel to stop, start and turn
 Utilises forearm to stop, start and turn
 Volleyball and/or scoop pass
 Traps direct passes on lap or bats it in from limited range

1.0 Point

Multidirectional start, stop and turn
 Tricep push with longer contact on wheel
 Uses spokeguard to start, stop and turn with wrist ext
 Arms adducted secondary to balanced proximal strength
 Forearm or fist catch and weak chest pass

1.5 Point

Usually has balanced proximal shoulder strength
 With triceps 3-4
 May have unbalanced wrists i.e wrist ext. 4-5, wrist flex. 0-3
 Asymmetry is present
 Consider quality of movement and fatigue

2.0 Point

Rims the ball using wrist flexion
 Effective chest pass
 Balanced/functional wrist flexion and extension
 Control and distance in overhead pass is limited

3.0 Point

Uses wrist/finger flexion in flip pass & rimming the ball
 Stabilises with the opposite arm to allow greater reach
 Multiple dribble one handed with control
 Grip wheelchair rim increasing pushing speed
 Functional finger flex and ext for ball control in varying planes

.5 Trunk

Maintains body/trunk in forward position while pushing
 Maintains body/trunk in forward position while picking
 Come to sitting position without arms
 Dribbles ball in front of wheelchair

1 Trunk

Rotation of forward flex during passing/defensive moves
 Ability to hip chair
 Use of lower extremities to maintain hip position in chair

COMPONENTS UTILISED IN DETERMINING A PLAYERS CLASSIFICATION

OFF COURT TESTS

1. Bench Test - Muscle testing will be performed on all upper extremity musculature in addition to examination of range of motion, balance, tone and sensation.
2. Functional Trunk Tests - The trunk tests will assess trunk and lower extremity function in all planes and in a variety of situations. This may include manual muscle testing of trunk musculature.
3. Functional Movement Tests - Pushing, turning, stopping, starting, holding chair against resistance, wheelies, passing, dribbling, rimming, catching and transfers. Any additional functional movement test can be performed as needed.

ASSIGNING CLASSIFICATION

1. The classifiers may convene regarding the athlete's classification without the athlete present. The PCB may be present. A decision on the athlete's classification will be reached based on manual muscle tests, functional movement tests, and trunk tests. If these results are inconclusive, a class R will be given. The class R player will be observed on the court during play to establish a final classification. A final decision will be made as soon as possible and the final classification will go into effect immediately. The assigned review class will be that of the higher (or less disabled class) for any athlete that is in review. If the classification panel need to vote, a majority decision is necessary
2. The athlete will be informed of his/her classification and the basis for this decision. The athlete is encouraged to discuss these results and any questions which may arise.
3. When a classification is established, the player will be issued a classification card. The Head Classifier will be responsible for insuring that the classification card is issued and filled out in the proper manner.
4. Within 10 days of each identified international tournament a tournament classification report will be generated by the Head Classifier and will consist of:
 - An inclusive list of all athletes classified, reviewed and protested, results and comments. This list will forwarded to IWRP Classification Commission.

Classification cards

1. Cards supplied by classification committee IWRP.
2. Same cards to be used internationally and at club level.
3. Cards must be sealed.
4. Players to pay \$10.00 for lost cards.
5. No N, R or T on cards.
6. National association to pay for cards.

DEFINITIONS OF UPPER EXTREMITY POINT VALUES

0.5 point

| | |
|------------------------|-----|
| Lats | 0-1 |
| Clavicular pec | 0-5 |
| Sternal pec | 0-1 |
| Biceps | 0-5 |
| Triceps | 0-1 |
| Wrist extension | 0-5 |
| Wrist flexion | 0-1 |
| Remaining hand muscles | 0 |

*characteristic are triceps 0-1 and shoulder girdle weakness, possible weak rotation, with limited range, sternal and clavicular pec weakness and latisamus weakness.

2 point

| | |
|--------------------------------|-----|
| Shoulder girdle muscles | 5 |
| Biceps | 5 |
| Triceps | 4-5 |
| Wrist extension | 4-5 |
| Wrist flexion | 4-5 |
| Finger flexion and extension | 0-2 |
| Finger adduction and abduction | 0-2 |
| Thumb movements | 0-2 |

Unbalanced finger flexion with significant grip function, if found bilaterally, felt to be 2.5

Triceps test

| | | |
|-----|---|--|
| 3 - | = | 5-10 repetitions |
| 3 | = | 10 repetitions |
| 3 + | = | 10 repetitions then minimal resistance |
| 4 - | = | 10 repetitions then minimum/moderate resistance |
| 4 | = | after 10 repetitions moderate resistance through R.O.M |

4 point

Arm manual muscle tests reflects 4-5 strength in all muscle groups. Score 8.5 - 9 on hand function tests. A classifier will not determine arm point value on manual muscle strengths alone, but will take into consideration the movement potential of the entire extremity. Skill level, equipment, athletic ability or training effect are not considered in the evaluation and classification process. These will not effect an athletes class.

Polio players

Divide bench test sheet above triceps. Give point value for upper part of arm and lower part of arm. Add the two scores and divide by two. This will then give you the point value for that arm.

1 point

| | |
|------------------------|-----|
| Lats | 0-3 |
| Clavicular pec | 5 |
| Sternal pec | 2-3 |
| Biceps | 5 |
| Triceps | 0-3 |
| Wrist extension | 0-5 |
| Wrist flexion | 0-3 |
| Remaining hand muscles | 0-1 |

1.5 point

| | |
|-----------------|------|
| Triceps | 3+-4 |
| Wrist extension | 4-5 |
| Wrist flexion | 0-3 |

3 point

| | |
|--------------------------------|-----|
| Arm ** | |
| Shoulder girdle muscles | 5 |
| Biceps | 5 |
| Triceps | 5 |
| Wrist flexion and extension | 5 |
| Finger flexion and extension | 3-5 |
| Finger adduction and abduction | 0-4 |
| Thumb movements | 3-4 |

** atrophy noted in the hands at the hypothenar and/or intrinsic muscles with decreased maintenance of the hand arches is indicative of significant hand weakness and muscle strengths of less than 4-5. A 3.0 hand has functional grasp and release. Thumb movements include adduction, abduction, flexion, extension and opposition. A muscle test of both hands and arms reflecting strengths of 4-5 in all muscle groups would reflect ineligibility for wheelchair rugby.

HAND FUNCTION TESTS

Hand Testing

These hands tests should be performed when there is question about the amount of involvement in the hand. This involvement of additional muscle function needs to be clarified and given a point value.

There are the three points given for these tests

| | | |
|-----|---|------------------------------|
| 1 | = | positive/minimal involvement |
| 0.5 | = | partial involvement |
| 0 | = | no involvement |

In order to give point values you need to be able to identify pure muscle involvement and not substitution.

| | | |
|-----|---|---|
| 1 | = | for a positive test you are looking for pure motion, a movement that is not substituted. |
| 0.5 | = | for a partial movement you are looking for partial involvement of the muscle group you are testing. |
| 0 | = | The test will demonstrate substitution instead of pure or partial involvement. |

When we are dealing with the intrinsic muscle function we are dealing with the muscles which have origin and insertion within the hand.

| | | |
|---|---|---|
| 1 | = | the thenar muscle group, Abd. pollicis brevis (C6 7 8 T1), opponens pollicis (C8,7,8 T1.), flexor pollicis brevis (C8 T1) |
| 2 | = | Abductor pollicis (C8 T1) |
| 3 | = | Lumbricals(1&2@C(b) 7 8 T1) (3&4@C(7)8 T1) |
| 4 | = | interosseous(C8 T1) |

To practice performing these tests you should perform on "normal" hands and then compare your results to the athletes hands.

As you are performing these tests remember to use observation of

1. Wasting in hands.
2. Maintenance of the hand arches.
3. Quality of movement, pure or substituted.
4. Perform the test on your partner and then return to the athlete to make a decision.

Numbers selected for point values.

| | | |
|---------|---|----------|
| 1 – 8 | = | 3.0 hand |
| 8.5 – 9 | = | 4.0 hand |

Specific hand testing- use as a guideline, still under development

At top of the form circle which is athletes dominant hand

1. Observe hands for wasting.
 - 1 = No wasting noted, hand arches maintained/minimal wasting
 - 0.5 = Partial wasting noted
 - 0 = Severe hand wasting evident of absent intrinsic functioning
2. Athlete puts forearms on the table, palms down, have athlete tap fingers digits 1-5, as if playing the piano.
 - 1 = Pure movement, no substitution patterns noted, movement has good quality
 - 0.5 = Partial ability, in 2 of 5 digits or movement is weak.
 - 0 = No ability to perform, all substitution.
3. Have the athlete assume the lumbrical position (MCP's flexed and PIP's and DIP's extended). The athlete must try to keep the wrist in neutral. Put a piece of paper between fingers and try to pull out.
 - 1 = Good starting position with wrist in neutral, able to give resistance.
 - 0.5 = Partial ability to maintain position but doesn't have good quality of movement.
 - 0 = Absent starting position, all substitution
4. Have the athlete assume the claw position maintaining a neutral wrist. Feel the integrity of the extensor tendons in the dorsum of the hand.
 - 1 = Good quality of movement with wrist maintained in neutral.
 - 0.5 = Partial involvement with difficulty maintaining position and poor quality
 - 0 = Unable to assume the position.
5. Have the athlete make O's with each digit and thumb using a piece of paper or coin. ???
 - 1 = Able to do with all 4 digits with good resistance and quality of movement.
 - 0.5 = Able to do with only a few digits 1 or 2.
 - 0 = Unable to perform
6. Put coins on the table and have the athlete try to pick them up. You are looking for pure quality of movement with this action.
 - 1 = Able to assume position and pick up
 - 0.5 = Can assume position but can't pick up coins
 - 0 = Unable to perform
7. Place a piece of paper between the athletes fingers. Make sure paper is all the way between fingers. Apply resistance to the paper.
 - 1 = Able to perform with good quality and with resistance.
 - 0.5 = May assume position but unable to perform with resistance.
 - 0 = Unable to assume position
8. Have the athlete hold the ball overhead and then bring it to his fingertips.
 - 1 = Pure movement with evidence of hand arches.
 - 0.5 = Partial movement or unable only due to lack of sensation.
 - 0 = Flat hand, no evidence of ability.
9. Have the athlete walk the ball up the wheel of the wheelchair with fingertips.
 - 1 = Good quality of movement.
 - 0.5 = Use of fingertips is partial, hand has partial flat look.
 - 0 = Flat hand unable to perform without using palm.

HAND FUNCTION TEST SCORE SHEET

SCORES 1-8 = 3.0 Points 8.5-9 = 4.0 Points

| NAME | DATE | | DATE | | DATE | |
|----------------------------------|------|---|------|---|------|---|
| | | | | | | |
| | R | L | R | L | R | L |
| 1. observation hands | | | | | | |
| 2. playing the piano | | | | | | |
| 3. lumbrical position + paper | | | | | | |
| 4. claw hands | | | | | | |
| 5. making O's + resistance | | | | | | |
| 6. pick up coins from table | | | | | | |
| 7. pince a piece of paper (add.) | | | | | | |
| 8. ball on finger tips + flat | | | | | | |
| 9. rims the ball + pick up | | | | | | |
| TOTAL SCORE | | | | | | |
| CONCLUSION | | | | | | |
| CLASSIFICATION | | | | | | |
| CLASSIFIERS | | | | | | |
| LOCATION | | | | | | |

List of possible wheelchair rugby classifications.

(this list is inconclusive in terms of number of possible combinations)

| | |
|------------|----------------------------|
| 0.5 | 0.5 arms |
| 1.0 | 1 arms |
| | 0.5 arms, 0.5 trunk |
| 1.5 | 1 arm, 2 arm |
| | 1 arms and .5 trunk |
| | bilat. 1.5 arms |
| 2.0 | 1 arms and 1.0 trunk |
| | 1 arm, 2 arm and .5 trunk |
| | 1 arm, 3 arm |
| | 2 arms |
| 2.5 | 2 arm, 3 arm |
| | 1 arm. 4 arm |
| | 1 arm. 3 arm and .5 trunk |
| | 2 arms and .5 trunk |
| | bilat. 2.5 arms/hands |
| 3.0 | 2 arm, 3 arm and 0.5 trunk |
| | 2 arms and 1.0 trunk |
| | 1 arm, 4 arm and .5 trunk |
| | 3 arms |
| | 2 arm, 4 arm |
| 3.5 | 2 arm, 3 arm and 1.0 trunk |
| | 3 arms and .5 trunk |
| | 2 arm, 4 arm and .5 trunk |
| | 1 arm, 4 arm and 1.0 trunk |
| | 3 arm, 4 arm |

The following athletes will be ineligible per vote of IWRF members:

4 arm/3 arm and .5 trunk
 4 arm/2 arm and 1.0 trunk
 3 arm/3 arm and 1.0 trunk
 4 arm/4 arm

THE 2.5 HAND**MUSCLE POWER**

| | |
|--------------------|-----|
| - wrist flexion | 5 |
| - wrist extension | 5 |
| - finger flexion | 2-4 |
| - finger extension | 2-4 |
| - lumbricals | 0-3 |
| - interossei | 0-2 |
| - thumb movements | 0-4 |

N.B. Finger flex is predominately due to the action of FDS and FDP (at the proximal and distal IP joints), without the influence of functional intrinsics. This results in finger ‘curling ‘ and ‘uncurling’ Rather than functional grasp and release of the 3.0 hand.

OBSERVATION

The 2.5 hand displays marked intrinsic wasting, including the thenar and hypothenar eminences, and little or no maintenance of the hand arches.

FUNCTION

1. Reasonably balanced finger flex and ext without true grasp and release
2. Functional grip that is used to advantage on the pushrim when challenged.
3. Utilises wrist position to strengthen grip and release , but able to perform some grip and release manoeuvres independent of wrist position.
4. Dribbles the ball safely, but supinates forearm to scoop the ball onto the lap.
5. Capable of performing overhand pass , but limited accuracy and distance.
6. Safe two handed catching of passes, usually scooping ball to lap.May catch passes single handed and scoop to lap or chest.
7. Improved ball security compared to 2.0 hand due to improved ability to isolate wrist/finger function.

CHARACTERISTICS OF THE VARIOUS WHEELCHAIR RUGBY CLASSES

There are seven classes in wheelchair rugby. These are .5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5. A total of 8 points are allowed on the floor during play and this must include four players.

0.5 Player

Unopposed biceps push with abduction and internal rotation of shoulder
 Forward head with bob when pushing
 Uses back ¼ of wheel to stop, start and turn
 Utilises forearm to stop, start and turn
 Volleyball and/or scoop pass
 Traps direct passes on lap or bats it in from limited range
 Sacrally sits, kyphotic and/or sits low in wheelchair

1.0 Player

Multidirectional start, stop and turn
 Tricep push with longer contact on wheel
 Uses spokeguard to start, stop and turn with wrist in extension
 Arms more adducted secondary to balanced proximal strength
 Forearm or fist catch
 May use wrist extensors to hook under portion of rim
 Tenodesis

1.5, 2.5, 3.5 Player

Asymmetrical push, may compensate with drag on strong side
 Asymmetrical arm function
 One sided ball handling skills
 Turns toward weak side with more skill, strength and speed than towards strong side
 May use strong side more effectively when picking.
 These classes were created for individuals with asymmetrical or varied upper extremity function and/or trunk function
 Symmetrical bilat 1.5 arms
 Symmetrical bilat. 2.5 arms.

2.0 Player

Rims the ball using wrist flexion
 Effective chest pass
 Balanced/functional wrist flexion and extension, allowing for more effective Tenodesis action.
 Dribble open handed with scoop bilaterally
 Scoops ball into lap when catching
 Utilises tyres and rims to stop, start and turn
 Control and distance in overhead pass is limited

3.0 Player

Uses wrist/finger flexion in flip pass, rimming the ball, and stabilising with the opposite arm to allow greater reach
 Multiple dribble one handed with control
 Grip wheelchair rim increasing pushing speed
 Retrieve the ball from the floor without use of the rim (Polio)
 Functional finger flexion and extension allowing for control of the ball in varying planes and the ability to grip and release rim regardless of wrist position.

This is not an inclusive list of characteristics.

EXPLANATION OF FUNCTIONAL TRUNK TESTS

1.0 Trunk Test

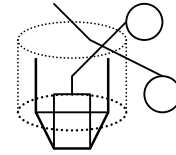
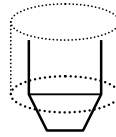
These athletes exhibit trunk function in a sagittal and frontal plane.

The athlete must achieve both test a) and b) to be given a full point trunk. Observation of lower extremity function may also be observed.

- a) Have the athlete raise arms using the ball in their hands from the floor in front of the wheelchair and overhead without using the arms to push on the chair or body.
- b) Have the classifier hold the ball at a 45 degree angle posterior/lateral of the shoulder and beyond arms length of the athlete. Have the athlete rotate their trunk and retrieve the ball with both hands. For this test to be positive the athlete should not have to reposition their hips to perform this test or lean on back of chair.

Function

Rotational ability in chair to allow forceful movement outside of wheelchair base.

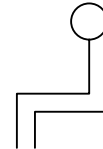
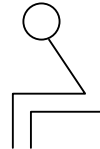


0.5 Trunk test

- a) From a forward flexed position the athlete is able to raise arms from the front or sides of the wheelchair to lap without using the arms to push off their lap or wheelchair. They are not able to perform this test with their arms held overhead. Performance of one of the two 1.0 trunk tests.
- b) These athletes exhibit trunk function through either a sagittal or frontal plane.

Function

The ability to place the torso in an advantageous position for pushing and/or dribbling.



Classification characteristic 0.5 vs 1.0 trunk

0.5 point

ability to reach forward outside "cone" of the chair for ball manoeuvring or defensive tactics in sagittal or frontal plane

ability to maintain body/trunk in a forward position while pushing

exhibits use of trunk to help maintain position in picks/holding

does not use arms to return to upright position once forward flexed

ability to dribble ball out in front of the chair

ability to pick up the ball from the floor without use of the rim or pushing up on lap

1.0 point

ability to dribble ball outside "cone" in both sagittal and frontal planes

ability to "hip" chair around to turn corners or avoid picks

exhibits rotation of trunk during passing and defensive moves in the key area

exhibits trunk rotation and reaching out to the sides when passing or keeping the ball away from defensive players

exhibits use of lower extremities when trying to maintain position or return from a forward flexed position.

Consider

Sitting on edge of wheelchair.

Standing balance.

Walking ? 1.0 trunk

Consider abdominals

MECHANICS EVALUATION DURING PLAY

Skills to be observed

1. Ball Control/Stability.
2. Holding and palming the ball.
 - a. what does the hand look like when palming the ball. Can you see use of intrinsics
3. Passing the ball.
 - a. Bounce pass, overhead pass and chest pass
4. Dribbling.
 - a. Dribbling to the side of the chair and/or away from the back of the chair.
5. Catching.
 - a. Forearm catch.
 - b. Side catch.
 - c. Overhead catch with one or both arms.
6. Grasp and release of the push rim
 - a. During turns.
 - b. While starting and stopping.
 - c. Defensively in the key. What are they doing ?
 - d. Position of the hand on the rim (where is their thumb?)
 - e. Pushing against resistance.
7. Throwing.
 - a. Force of throw.
 - b. Speed of throw.

Observe in a variety of situations

1. On the open court.
2. In the key.
3. During time-outs while working with equipment i.e.: tape, gloves, waterbottle, tools and binders.

Utilising the court observations

The court observations are used in conjunction with the bench test. It is utilised to make a determination between the significant advantages and/or disadvantages the athlete may have within a particular class.

Remember these observations should not be a judgement of athletic ability but of movement potential based on neuromuscular function. Keep in mind to watch for how they perform the skill not how well they perform the skill. This is a very fine line and takes a trained eye. It is recommended that you spend a lot of time just observing athletes in play. You are trained in neuromuscular substitution patterns and you teach it to your patients, use this same skill when you observe court play.

FUNCTIONAL COMPARISON OF THE 3.0 AND 4.0 HAND

3.0 point (0 - 8 points hand function tests)

Has functional grasp and release
 Balance between flexors and extensors at wrist at least grade 3/5
 Wasting/atrophy in intrinsics. thenar/hypothenar eminences
 Hand arches not maintained
 Tone/sensory changes

4.0 point (8.5 – 9.0 points hand function tests)

Balance between flexors and extensors is greater or equal to 4/5 strength
 Balanced and co-ordinated movement
 Opposition

Skill

Palming the ball

- 3.0 Unable in a challenged situation
- 4.0 Can palm and control the ball above the head and has stability of the ball in a challenged situation

Dribbling retrieval

- 3.0 Substitutes with strong wrist and finger flexion and extension for intrinsics and thumb. Supinates ball to the lap due to poor grip
- 4.0 Controls the ball in all planes with no substitution patterns.

Overhead, single handed wrist flip pass

- 3.0 Poor stability in palm. Decreased accuracy and distance
- 4.0 Good accuracy and distance

Gripping for stops and starts

- 3.0 Weak and may require increased time with some slippage on the wheel
- 4.0 With finger flexion, extension and thumb strength, the athlete has no limitations

Catching passes

- 3.0 Two handed, may immediately pull the ball to the lap
- 4.0 May be one handed or may hold the ball away from the body

The above list is to assist a new classifier in understanding the minimal disability questions regarding hand function. As classifiers we need to observe if the muscle strengths are low enough to decrease function on the court. You need to see past the athletic ability and look at the athletes movement potential.

IWRF CLASSIFIER APPLICATION FORM

Please fill out this form if you are interested in becoming a wheelchair rugby classifier.
Please send to :-

| AMERICA ZONE | EUROPEAN ZONE | OCEANIA ZONE |
|-------------------------------|----------------------------------|----------------------------|
| <i>DENISE ANDERSON</i> | <i>ANBRITT OLSSON</i> | <i>GREG UNGERER</i> |
| 7511 Mystic Heights Drive | Fiolgatan 2 | P.O. Box 1043 |
| Bozeman Montana 59715 | 42141 Vastra Frolunda | Capalaba Queensland 4157 |
| U.S.A. | SWEDEN | AUSTRALIA |
| Tel: + 1 406 586 9347 (H) | Tel/Fax +46 31 709 4135 (H) | Tel; + 61 7 3245 1969 (H) |
| Fax: + 1 406 586 2943 (W) | Email: anbritt.olsson.@telia.com | Fax: + 61 7 3390 3001 (H) |
| Email: ando2 pts@.aol.com | | Email: gregu@bipond.com |

If you are interested it will require participation in classification workshops in order to learn the wheelchair rugby system and a time commitment for assisting with classification in your area.

This is an exciting time to get involved with wheelchair rugby classification and your help would be greatly appreciated.

Name: _____

Address: _____

Phone number: _____ Fax _____

Profession: (circle appropriate one) P.T O.T M.D. OTHER:-

Team affiliation _____

Experience in wheelchair rugby _____ Number of years _____

I hope that you will consider this opportunity to become involved in wheelchair rugby, it is an exciting sport and its growth increases every year.

Thank you.

CODE OF ETHICS OF THE IWRF CLASSIFIERS

1. I am a volunteer in the service of the IWRF
2. I must seek to be fully informed through study and training in order to apply to the best of my ability the up-to-date guidelines, policy and procedure of the Classification Commission.
3. I must contribute to the development and the dissemination of guidelines, policy and procedures of the Classification Commission to the players in my country and throughout the world.
4. I must exercise my art rigorously, without yielding to any economic, political, sporting or human pressure.
5. I must be able to justify and explain my decisions and those of other members of the Classification Panels without showing anger or resentment.
6. Publicly or privately. I must respect the deliberations of my fellow Classifiers whether I am in agreement or not.
7. I must : -
 - respect all players, coaches, officials and spectators;
 - strive to gain respect for all international classifiers;
 - show respect to my fellow international classifiers.

Thereby accepting my position as an IWRF Classifier, I commit myself to :-

- respect this Code of Ethics;
- distance myself from any gender orientated, political, religious or nationalistic bias;
- always give my best when performing the function of an IWRF International classifier.

THE APPLICANT:

THE PRESIDENT OF THE CLASSIFICATION COMMISSION:

IWRF TOURNAMENT CLASSIFICATION SCHEDULE/REPORT:

TOURNAMENT: _____ CLASSIFIERS PRESENT: _____

LOCATION: _____ NAME _____

COUNTRY _____

DATE: _____ LEVEL: _____

All players listed below must report to the classification room, as scheduled, in their playing chair. If there is a conflict with any of the scheduled times notify the classifiers immediately. Any player not showing for classification on time may be rescheduled at the classifiers convenience, and will not be allowed to participate in tournament play until classified.

Any player perceived as not giving full effort, voluntarily, or through the effects of drugs or alcohol will be asked to leave without receiving classification, such players might be rescheduled in attempt to obtain full effort, at the discretion of the classifiers.

Players have the right to request the presence of a PCB Member Player Representative present during testing. Coaches/team manager/interpreter may be present.

CLASSIFICATION ROOM: _____

CLASSIFICATION DATES(S): _____

| | PLAYERS | COUNTRY TEAM | CLASSIF TIME | PRE- TOURN | POST- TOURN | COMMENTS |
|---|---------|-----------------|-----------------|---------------|----------------|----------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |

**IWRF TOURNAMENT CLASSIFICATION
SCHEDULE/REPORT:**

| | PLAYERS | COUNTRY TEAM | CLASSIF TIME | PRE- TOURN | POST- TOURN | COMMENTS |
|----|----------------|-------------------------|-------------------------|-----------------------|------------------------|-----------------|
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| 15 | | | | | | |
| 16 | | | | | | |
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| 28 | | | | | | |
| 29 | | | | | | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |

CLASSIFICATION LOG BOOK

| DATE | EVENT/LOCATION | DETAILS | ROLE |
|------|---------------------------------|---|-------------|
| | | # of athletes classified: 0-10 ___ -11-20 ___ 20+ ___ | |
| | | # of teams present: 4-8 ___ 8-10 ___ 10-12 ___ | |
| | | # of athletes protested: | H.C. |
| | | Ineligible players: yes no | classifier |
| | Were other classifiers present? | Classification workshop: leader participant | Team physio |
| | Yes ___ no ___ | Meetings attended: _____ (i.e. AGM) | observer |
| | | Comments: | other |

| DATE | EVENT/LOCATION | DETAILS | ROLE |
|------|---------------------------------|--|-------------|
| | | # of athletes classified: 0-10 ___ 11-20 ___ 20+ ___ | |
| | | # of teams present: 4-8 ___ 8-10 ___ 10-12 ___ | |
| | | # of athletes protested: | H.C. |
| | | Ineligible players: yes no | classifier |
| | Were other classifiers present? | Classification workshop: leader participant | Team physio |
| | Yes ___ no ___ | Meetings attended: _____ (i.e.AGM) | observer |
| | | Comments: | other |

| DATE | EVENT/ LOCATION | DETAILS | ROLE |
|------|---------------------------------|--|-------------|
| | | # of athletes classified: 0-10 ___ 11-20 ___ 20= ___ | |
| | | # of teams present: 4-8 ___ 8-10 ___ 10-12 ___ | |
| | | # of athletes protested: | H.C. |
| | | Ineligible players: yes no | classifier |
| | Were other classifiers present? | Classification workshop: leader participant | Team physio |
| | Yes ___ no ___ | Meetings attended: _____ (i.e. AGM) | observer |
| | | Comments: | Other |

CLASSIFIER CERTIFICATION

NAME:

PRESENT LEVEL:

LEVEL ACHIEVED:

- 1 Professionalism**

- 2 Neutrality**

- 3 Time keeping**

- 4 Working as a team**

- 5 English (spoken & written)**

- 6 Organisational qualities**

- 7 Muscle charting**

- 8 Observational skills**

- 9 Explanations**

- 10 Decision making**

- 11 Log book**

- 12 Knowledge of rules and regulations**

- 13 Teaching ability**

- 14 Experience**

Certifying classifier/s:

Comments:

Tournament:

Date: