



SWIMMING CLASSIFICATION MANUAL

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INTRODUCTION

IPC Swimming provides competition for swimmers with physical disabilities, visual impairment and intellectual disability. Each of the disabilities must first be classified to be eligible for competition. The method of classification differs between these three “types” of disabilities. The focus of this manual is the classification system of the swimmer with a physical disability.

Swimmers with physical disabilities are functionally classified. The current functional classification system for swimming was originally developed by Birgitta Blomquist and colleagues in the 1980s and fully implemented at the 1992 Paralympics in Barcelona. Since then the system has undergone significant review and modification. IPC Swimming conducts ongoing review and monitoring of the system.

Prior to the development of this system, 31 classes existed for physical disabilities based on a medical examination only with the focus on the disability. Functional classification classifies swimmers with a:

- Bench Test [swimming specific examination]
- Water Test [a functional assessment of the swimmer's ability] and
- Observation during competition with the focus on ability.

This manual is set out in four sections.

- Section One of this manual outlines eligibility criteria, procedures and protocols and rule exceptions
- Section Two contains the tests that are used for the bench
- Section Three are the class profiles
- Section Four includes forms relevant to classification.

The classification system referred to in this manual only applies to swimming. A class awarded under this system is for swimming only. Other sports have their own system applicable for their sport.

The information in this manual is most effectively used by individuals who have completed training with IPC Swimming, completed the online classification course and are conversant with IPC Swimming Swim Rules.

SECTION ONE

SWIMMING CLASSIFICATION

These Classification Rules are in accordance with the International Paralympic Committee [IPC] Sports Assembly Executive Committee for Swimming and shall be known as IPC Swimming.

A competitor is eligible to compete if they have been classified in accordance with the

1. Functional Classification System [FCS] for locomotor disability [ie amputees, cerebral palsy, les autres, spinal cord injured and polio] and shall be referred to as classes 1-10 swimmers.
2. International Blind Sports Association [IBSA] for the visually impaired and shall be referred to as class 11, 12 and 13 or
3. International Federation for Persons with an Intellectual Disability [INAS-FID] for persons with an intellectual disability and be referred to as class 14;

These rules shall be read in conjunction with the IPC Swimming Swim Rules.

ELIGIBILITY CRITERIA FOR FUNCTIONAL CLASSIFICATION SYSTEM [FCS] – LOCOMOTOR DISABILITIES

The classification system uses a numerical calculation of locomotor ability as a guideline and is expressed in profiles showing the variation in propulsion effectiveness of swimmers with different locomotor abilities [ie amputees, cerebral palsy, dysmelia, les autres, spinal cord injury and polio swimmers].

The FCS procedure includes three components: bench test, water test and observation during competition. The swimmer shall take part in all of these and shall fully cooperate with all components in order to be classified. If a swimmer does not perform properly in any of the three components, the classification team of the competition shall not assign a class, the swimmer shall be deemed 'unclassifiable' and he/she shall be removed from the current competition.

The minimal handicap to be eligible to compete is a loss of 15 points on the bench test. Swimmers that are deemed ineligible by failing to lose 15 points on the bench test are not subjected to the components of water test and competition as part of their classification process.

A Consent Form shall be signed by the swimmer and a country representative. By signing this form the swimmer accepts to fully cooperate with all of the above mentioned components of the classification procedure and acknowledges that they are ineligible, if they fail to cooperate.

All locomotor ability is tested by one/combination of the following:

- i] assessment of points for muscle testing and/or
- ii] assessment of points for coordination testing and/or
- iii] assessment of points for joint mobility and/or
- iv] measurement of the amputated/dysmelic limb and/or
- v] measurement of body height.

The number of 300 points have been allocated as relating to an able bodied swimmer for S strokes.
The number of 290 points have been allocated as related to an able bodied swimmer for the SB stroke.

S Strokes	Freestyle, Backstroke, Butterfly	SB Stroke	Breaststroke
Arms	130 points	Arms	110 points
Legs	100 points	Legs	120 points
Trunk	50 points	Trunk	40 points
Start	10 points	Start	10 points

Turns

10 points

Turns

10 points

S and SB strokes on the testing form indicate that the points shall be scored for the respective S strokes - freestyle, backstroke and butterfly, of which there are 10 classes or SB stroke - breaststroke, of which there are 9 classes. SM [Medley class] is calculated combining function in all strokes.

The water testing procedure immediately follows the point calculation assessments. The bench test points shall give the classifier a range to start from and the water test followed by observation during competition is required to make the final decision. The three components of classification are completed at the same competition. These 3 components are required to make the final decision. All swimmers including unclassifiable and ineligible swimmers have the right to protest the classification decision.

ELIGIBILITY CRITERIA FOR VISUALLY IMPAIRED

All visually impaired competitors shall be classified by an authorised ophthalmologist authorised by the International Blind Sports Association [IBSA] Classification Officer and IPC Swimming.

A Consent Form shall be signed by the swimmer and a country representative. By signing this form the swimmer agrees to fully cooperate with the components of the classification procedure and acknowledges that they are ineligible if they fail to cooperate.

Recognised classes for the visually impaired are as follows:

- S11: No light perception in either eye up to light perception but inability to recognise the shape of a hand at any distance or in any direction.
- S12: From ability to recognise the shape of a hand up to visual acuity of 2/60 and/or visual field of less than 5 degrees.
- S13: From visual acuity above 2/60 up to visual acuity of 6/60 and/or a visual field of more than 5 degrees and less than 20 degrees.

All classifications shall be made in the best eye with best correction. [ie all competitors who use contact or corrective lenses must wear them for classification, whether they intend wearing them, or not during competition].

S11, SB11 & SM11 swimmers with the exception of those with prosthesis in both eyes shall be required to wear opaque goggles for each individual and relay event for the full duration of the event. S11 swimmers whose facial structure will not support goggles shall be required to cover the eyes with an opaque covering. In events where classes are combined and records shall be recognised, all S11 competitors shall wear opaque goggles.

ELIGIBILITY CRITERIA FOR INTELLECTUAL DISABILITY

At the time of compiling this edition of the classification manual the criteria for swimmers with an intellectual disability is under review. When the criteria have been established by IPC Swimming this section will be updated.

CLASSIFICATION PROTOCOL

1. IPC Swimming shall appoint the Head of Classification as required at Paralympic Games, World Championships, Regional Championships and other relevant IPC Swimming competitions.
2. The responsibilities of the Head of Classification are:
 - i] to be a member of the selection committee for the classification teams for the relevant championships;
 - ii] to act as coordinator and spokesperson for the classification teams;
 - iii] to accept all classification protests submitted according to the swim rules [GN7.4];
 - iv] to appoint the appropriate classifiers to form a Classification Protest Panel;
 - v] to be responsible for the administration and distribution of the results of the classification protest;
 - vi] to be a part of the Jury/Protest Panel where relevant/necessary and report to a Jury/Protest Panel when called upon;
 - vii] to assist with setting in place the timetable of swimmers requiring classification/reclassification. At Paralympic Games the Organising Committee shall be responsible for setting in place the necessary timetable in conjunction with IPC Swimming;
 - viii] to assist in identifying swimmers requiring classification/reclassification and swimmers correct classes when entering competitions;
 - ix] to set in place a roster of duties for the classifiers and trainees for the full duration of the competition;
 - x] when a classification course is conducted, assign a trainee classifier to an authorised classifier [mentor system];
 - xi] to set in place and be a part of a panel responsible to determine each swimmer's status on completion of the relevant competition. The status shall be recorded on the swimmer's classification sheet and in the classification database.
 - xii] where a classification course is conducted, to set in place a panel of a minimum of three [3] authorised classifiers to assess each of the trainee classifiers progress and possibly authorise any appropriate trainee classifier. The panel shall consist of at least one [1] medical and one [1] technical authorised classifier. It is the responsibility of the Head of Classification to report any relevant information or recommendations, from the Panel, to the IPC Swimming Executive for ratification or any appropriate action necessary;
 - xiii] to communicate and report to the Technical Delegate on a daily basis of all relevant classification issues.
 - xiv] to conduct a daily debriefing session with classifiers and trainees, prior to the commencement of the competition, for the full duration of the competition and at the completion of the competition.
3. The responsibilities of the Classification Team are to:
 - i] take part in the classification prior to competition [this may include assisting with the administration of blind classifications];
 - ii] take part or report to the Protest Panel when required;
 - iii] attend, observe and assist in the necessary roles and responsibilities necessary for the conducting of a competition for the full duration of the competition; and
 - iv] assist in the further education of trainee classifiers as designated by the Head of Classification.
4. Each classification team shall consist of at least one medical and one technical authorised classifier. The number of classification teams will vary according to the number of competitors requiring classification/reclassification. The time required for one competitor shall be approximately thirty [30] minutes. The time allocated for a protest panel shall be one [1] hour.
5. Timetable for Classification:

Swimmers requiring classification/reclassification on the competition site shall be tested two days prior to the first day of the competition. Unclassified swimmers or swimmers requiring reclassification who arrive late, face possible deletion from their events.
6. Classification testing:
 - i] there shall be adequate room at the pool complex to accommodate at least four [4] classification teams for the bench testing procedures;

- ii] the bench testing areas shall be provided at the pool complex, preferably located at the practice pool for the teams;

- iii] the water function test shall take place immediately after the bench testing;
- iv] the pool for the water test shall be a minimum of 25 metres in length;
- v] a starting platform shall be in place;
- vi] for the classification/reclassification, the swimmer shall be dressed in a costume suitable for the individual sports discipline [IPC Swimming, swim rule GN 2]; and
- vii] the swimmers shall be permitted to be escorted by one only team representative. When required a translator, in addition to the team representative, shall be present during the full procedure of the classification or protest.

7. Requesting of reclassification and protests can only be submitted by an NPC.

8. Swimmers classification status:

- i] the swimmers classification status shall be marked in the classification database and on the classification sheet. The Head of Classification and the classification team, at the relevant competition shall determine the swimmers status.
- ii] Swimmers maintaining the following status may only be reclassified or protested at an IPC Swimming approved competition where at least three internationally authorised classifiers, appointed by IPC Swimming are present.

N New swimmer - not having previously been classified by an authorised classification team.

R Review swimmer - classifiers requiring a swimmer to attend reclassification. The country is not required to present a protest for the swimmer to be reclassified.

P Permanent swimmer - a swimmer maintaining a permanent classification. A request for reclassification of the swimmer may be presented but is required to be in the form of a protest. The swimmer may have their classification protested by another country.

PP Permanent classification due to a protest. The swimmer may only be protested for reclassification if the FCS is revised or there is a change in the locomotor ability of the swimmer. The swimmer may only be protested for reclassification by another country if the FCS is revised or modified.

Note: **PP status swimmers classification is not finalised until observation during competition.**

Exception: Swimmers who have a progressive condition shall always be marked as P status, and will only be reclassified if the country submits a formal application. The country will not be required to submit a protest. For a review of the swimmers classification a written application, accompanied by a medical certificate explaining the possible changes to the classification of the swimmer is required. The application is to be forwarded to IPC Swimming Chairman at least three [3] months prior to the commencement of the relevant competition

Also swimmers with a P status but have previously been identified for review at a certain age or in a specified year, will be required to attend reclassification at the identified age/year. A protest is not required to be presented.

- iii] Swimmers who do not perform the classification test properly may not be assigned a class and therefore deemed unclassifiable. The unclassifiable class is given a P status.

9. The host organising committee will supply the classifiers with a suitable observation area. The scoreboard shall be visible from the place of observation. There shall be sufficient room for up to nine [9] classifiers plus the number of trainee classifiers if in attendance at a classification course.

FCS CLASSIFICATION PROCEDURE

These classification instructions refer to the procedure for completing the Swimming Testing Form.

- i] Each classification team shall consist of at least one medical and one technical authorised classifier.
- ii] Enter complete personal details on the testing sheet. For international collation of testing sheets all information is to be recorded in English to ensure uniformity.
- iii] Enter the medical diagnosis and the associated diagnosis of the swimmer.
For example: Diagnosis Para Associated diagnosis incomplete T12
 CP right hemi
- Make note if the swimmer has a progressive disability.
- iv] Swimmers with a newly acquired disability should wait for their condition to stabilize, especially neurological conditions, before presenting for classification. Classification for spinal cord lesions, head injury or brain lesions should be delayed for two [2] years after the onset of the condition.
- v] Swimmers with multiple sclerosis, or like disability, can only be classified if their condition is stabilised to the degree that their classification profile remains consistent for the full duration of the competition.
- vi] Swimmers who present with Reflex Sympathetic Dystrophy (RSD) or Complex Regional Pain Syndrome I for classification must meet the following criteria to gain a FCS class.
- ✓ The condition has been present for 2 years
 - ✓ The condition has stabilised [ie the classification profile remains consistent for the full duration of the competition which includes bench and water test and observation during competition.
 - ✓ Pain is not the primary feature
- All other requirements as stated in the FCS must be met which includes that there is at least a 15 point loss due to muscle or ROM deficits and that the classification tests are not limited by pain. Bench tests are ceased immediately if pain is limiting the procedure. An automatic class of unclassifiable is allocated. Swimmers should only present for classification if able to be subjected to all tests without consideration given to pain levels. Any inconsistency noted with the tests [bench, water and competition] results in ineligibility for competition with an unclassifiable status awarded.
- vii] Swimmers with dyspraxia as their primary condition do not qualify for the FCS. Neurological conditions arising from the central nervous system that are accepted into the FCS usually include cerebral palsy, acquired brain injury or lesion, multiple sclerosis etc. These conditions may have an associated diagnosis of dyspraxia. A diagnosis of dyspraxia, learning disorder, minimal brain dysfunction as a primary diagnosis is not sufficient to qualify for the FCS. It is always recommended that in a situation when the swimmer's diagnosis is not defined, and it is claimed that the disorder is of a neurological origin, that a doctors letter, from a neurologist be obtained.
- viii] Swimmers under the age of 17 years, particularly those with a neurological condition will be required to have their classification reviewed once maturity has been reached.
- ix] All swimmers must complete a declaration form [Section 4]. The swimmer must state if they have epilepsy, seizures or associated medical conditions eg asthma. Failure or refusal to complete this form may deem the swimmer ineligible to compete. [see swim rule GN 1.2]
- x] If the swimmer being classified is not familiar with English, the classification procedure shall not proceed until such time an interpreter is present to assist the swimmer.
- xi] Before proceeding further with the classification process the swimmer must sign a consent form [Section 4]. Failure or refusal to complete this form prevents the classification procedure to commence and therefore the swimmer is deemed unclassifiable and therefore ineligible to compete.
- xii] Testing is to be done on a horizontal medical testing bench.
- xiii] Perform the Bench Test, examining all of the following points and where necessary complete the appropriate test/tests.
- a] Assessment points for muscle test and/or;
 - b] Assessment points for co-ordination and/or;
 - c] Assessment of the joint mobility and/or,
 - d] The measurement, in centimetres, of the amputation on the body chart and highlighted,
 - e] The measurement, in centimetres of body height for the relevant conditions,
 - f] Drop shoulder tests for the relevant swimmer.

Note: For a swimmer with eg paresis and a contracture of shoulder flexion, only one test for the one function can be used in scoring.

For the swimmer with multiple disabilities the classifier shall assess which of the disabilities is functionally more severe and test accordingly.

- xiv] On completion of the bench test enter the total points in S and SB columns respectively prior to the water test to determine a preliminary classification.
- xv] Functional classes are as follows:
 S Stroke Freestyle, Backstroke, Butterfly
 SB Stroke Breaststroke
 SM Strokes Medley
- xvi] Perform the water test for S and SB strokes.
 The following procedures are to be adopted when water testing the swimmer
 - a] Where appropriate the swimmer is required to perform a dive start. Record [circle] whether a D or W. If the swimmer is capable of a dive but does not perform a dive the sheet is to be marked as D.
 - b] The swimmer is required to perform each stroke for a distance of at least 25m. For swimmers with impairment in coordination it may be necessary that they complete at least 50m of each of the strokes at a relatively fast pace.
 - c] The swimmer is required to perform a face and back float. This will assist in determining the swimmers body position in the water. It is necessary to record the swimmer's body position on the appropriate diagrams on the testing sheet.
 - d] While adopting the face float position the swimmer is required to perform the relevant kick for freestyle and breaststroke. This is to assist in determining the propulsive/stabilizing ability of the kick.
 - e] The swimmer is required to perform a turn. This is to be performed at a relatively fast pace.

Note: The swimmer is required to perform the face float and back float. These swimmers who cannot perform the face float and back float are not deemed safe in the water and therefore will not receive a classification and be ineligible to compete.

Calculation of Points:

It is important to note that when calculating the points for the relevant strokes the observation during water testing of the relevant limb is assessed on ability [ie propulsion or stability]. For example a swimmer may receive a total number of 48 points [out of a possible 120 points] for the legs during the bench testing. In the water testing however it is apparent that the legs have no propulsive ability, although some movement is evident. The legs are able only to act for stability and reduction of drag throughout the stroke. It is necessary to record the bench test points as the tested 48 points allow for the stability factor. A swimmer recording 48 points has a distinct advantage to a swimmer who is tested as 0 points for the legs. Calculated points can then be deducted/added to what is relevant to the performance of the legs for the relevant stroke.

Dive Start: [S] and [SB]

Start in water with assistance.....	0 points
Start in water without assistance.....	1-2 points
Falls into water.....	1-2 points
Poor functional dive with one leg.....	3-4 points
Poor functional dive with both legs.....	5-6 points
Good functional dive with one leg.....	7-8 points
Good functional dive with both legs.....	9-10 points
Dive with one non-functional arm	
[dragging or above elbow amputation].....	9 points
Dive with non-functional arms	
[dragging or above elbow amputation].....	7 points

Push-off when Turning: (S) and (SB)

No push-off with the legs possible.....	0 points
Push-off only with any single joint eg ankle joint.....	1-2 points
Poor functional push-off with one leg.....	3-4 points
Poor functional push-off with both legs.....	5-6 points
Good functional push-off with one leg.....	7-8 points
Good functional push-off with both legs.....	9-10 points
Turning without arms	

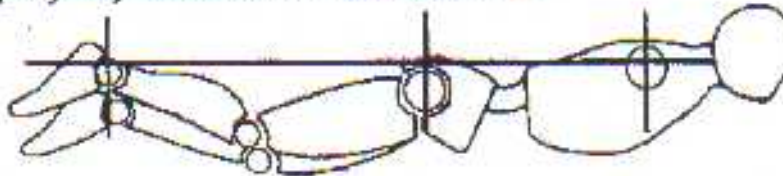
[dragging or above elbow amputation].....	7 points
Turning with one arm	
[dragging or above elbow amputation].....	9 points

Note: Swimmers with non-functional hands get 2 points less for the push-off when turning.

- xvii] Complete the following diagram on the testing sheet marking the body position relevant to the water line for the face and back float.

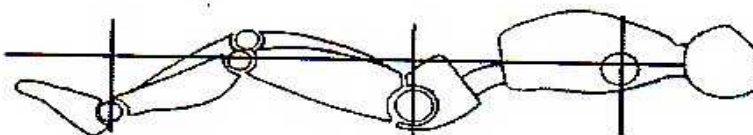
FACE FLOAT: eg S6

Example of Body Position in the Water - Face Float



BACK FLOAT:

Example of Body Position in Water - Back Float



- xviii] Medley Classification [SM]:
The classification team will decide upon the class based on the swimming functional scoring and the water test of each individual stroke of the swimmer.

$$\frac{3 \times \text{S class} + 1 \times \text{SB class}}{4} = \text{SM class}$$

Note: The calculation is only a guide to the swimmers medley class. The swimmers three S strokes must be taken into account when calculating the SM class eg if the swimmer has two S strokes [S7] that show good technique and one S stroke which pronounces the associated disability then the SM class is possibly the lower SM class [SM6]. The decision should not be made on the basis of poor technique of any stroke, by the swimmer.

- xix] The swimmer is to be given the three classes – S, SB & SM, regardless whether the swimmer performs, during the classification process, an illegal stroke or declares that he/she does not perform all strokes. Exceptions to this procedure will only be given if the swimmer provides a signed letter declaring they will not perform a particular stroke eg breaststroke.
- xx] Swimmers holding a permanent classification due to a protest [PP status] shall not be subjected to further reclassification unless there is a change in the classification system or a change in the locomotor ability of the swimmer.
- xxi] The exceptions to the swimming rules are required to be completed. On the following page is the required terminology and interpretation.
- xxii] All swimmers are subject to observation during competition to verify their classification. This includes PP status swimmers classification which is not finalised until observation during competition.

EXCEPTIONS

	Terminology	Interpretations
Assistance required	Support Staff Volunteer	Own country's support staff Volunteer help required
Start	Water	Start in the water
	Feet	Feet onto the wall
	Dive	Dive from the starting platform, standing or sitting or standing next to the starting platform
	Hearing	Has a hearing impairment and therefore required a light or touch start
	Starting device	Swimmer requires a device that shall be approved by the TD/TA when starting.
Freestyle	Nil	No exceptions for any classes
Backstroke	One hand start	For full or part arm amp/dysmelia; erb palsy or brachial plexus; some severe hemis
	Unable to grip	Unable to grip the backstroke grips due to weak hands and/or wrist
Breaststroke	One hand touch with simultaneous intent to touch with other	For full or part arm amp/dysmelia For hemi or those with contractures in elbow
	One hand touch	One arm only Those using one arm only Brachial plexus/erb palsy
	Part of upper body must touch	No arms amp/dysmelia/ short arms
	Left/right foot must turn out	Single leg amp/dysmelia One good leg ie polio, hip/knee disability
	Show intent to kick	Both legs are affected to some degree
	Leg drag	No use of legs or swimmer chooses not to use legs
Butterfly	One hand touch with simultaneous intent to touch with other	For full or part arm amp/dysmelia For hemi or those with contractures in elbow
	One hand touch	One arm only Those using one arm only Brachial plexus/erb palsy
	Part of upper body must touch	No arms amp/dysmelia/short arms
	Dropped shoulder	Shoulder not able to be kept in line with the normal water surface. Shoulder test has been performed.
Comments:	Medical	For medication consideration. Swimmers need to be observed. Medical & lifeguards alerted. Osteogenesis imperfecta also to be identified for medical alert.

FCS RECLASSIFICATION – PROTEST PROCEDURES DURING COMPETITION

1. A classification protest panel will consist of three [3] authorised classifiers appointed by the Head of Classification. The protest panel must consist of at least one medical and one technical classifier who have not previously classified the swimmer within an eighteen [18] month time period.
2. The time allocated for a protest panel shall be one [1] hour.
3. A change in classification is possible if the swimmer is:
 - i] reclassified prior to the commencement of the competition, or
 - ii] reclassified during competition as a result of a protest, either by a country or the Head of Classification.
4. Swimmers shall be assessed in all S strokes before any reclassification of the S Class is finalized. The same applies to the SB class.
5. Upon the observation of a swimmer who appears to be in the incorrect class, the Head of Classification shall verbally notify the swimmers coach/team leader. It shall be the responsibility of the country's coach/team leader to inform the swimmer that they are required to attend a classification protest.
6. The swimmer is required to attend the classification protest on the day of the request. The coach/team leader shall set a time for the testing that is convenient to the swimmer and that is within the time limit [the day of the request]. If a competitor does not attend a classification protest when requested they may be disqualified from further competition.
7. The same procedure shall be adopted for a classification protest submitted by a country.
8. Only the appointed classifiers shall attend the Classification Protest Panel.
9. The result of a protest shall be in writing and presented to the Head of Classification. The original form shall be filed with the swimmer's classification testing sheet. A copy is also to be presented to the coach/team leader of the country of the protested swimmer and where relevant a copy of the protest form with the results to the country presenting the protest.
10. The change of the swimmer's class following a protest shall be effective on the following day of the protest being presented and the procedure being completed.
11. A protested classification is only finalised and allocated the status of PP once the swimmer has been observed in all relevant strokes during competition. Progressive disabilities will not be allocated a PP status.
12. Swimmers holding a permanent due to protest [PP] status classification, will not be subjected to a classification protest unless there is a change in the classification system or a change in the locomotor ability of the swimmer. A written application, accompanied by a medical certificate explaining the possible change of the classification of the swimmer is required.
13. A swimmer holding a permanent due to protest [PP] status classification and who has presented a written application may only be reclassified at a World Championships or at approved IPC Swimming competitions. A panel of three [3] authorised classifiers is to conduct the reclassification. The panel shall consist of at least one medical and one technical classifier.
14. Protests for unclassifiable swimmers can only be presented by the NPC. Once the protest is conducted and if the swimmer remains as unclassifiable the status becomes PP ie PP status for an unclassifiable classification. There is no further process of appeal for a PP status unclassifiable swimmer. If the protest results in the swimmer receiving a class other than unclassifiable the swimmers status shall be a P status only. The protest fee in the instance of an unclassifiable swimmer is to remain the property of IPC Swimming regardless of the outcome.

15. Protest Procedures at National Championships [Addition to the ruling GN 7.4.4.]

Protest procedures must adhere to the following conditions:

- a] At least three [3] international authorized classifiers, at least one [1] medical and at least one [1] technical are to be in attendance who have not previously classified the swimmer within the past 18 months. The classifiers are not permitted to participate in a protest of a swimmer from their own country.
- b] No protests are permitted on classifications conducted at the competition.
- c] The condition causing the potential protest must be lodged in writing by the NPC to the IPC Swimming Chairman, three [3] months before the competition. The protest money of \$US100 is required to be paid on arrival at the relevant competition if the protest has been accepted. The necessary conditions and classifiers are mandatory for a protest to be accepted. If the appropriate classifiers cannot be identified for the specific competition then the NPC will be notified in writing as to when it is possible to arrange and conduct the protest.

Classifications of swimmers at the championships are the first priority and the conducting of the competition is given priority over this type of classification protests.

IPC Swimming will retain the protest money regardless of the outcome of the protest.

16. Other specific rulings concerning classification protests shall follow IPC Swimming Swim Rule GN 7.4.

SECTION TWO

MUSCLE FUNCTION TESTING

Muscle strength is tested using the Adapted Medical Research Council [MRC] scale.

0. No contraction.
1. Flicker or trace of contraction.
2. Active movement with gravity eliminated.
3. Active movement against gravity.
4. Active movement against gravity and resistance.
5. Normal power.

Testing should be conducted as per standard muscle testing procedure ie positions changed to adjust for muscle grades. Points are not to be allocated for “trick” movements.

When observing the muscle function it is necessary to see the swimmer perform the swimming stroke in the water. It is important to test the real function of a limb when the point score of the muscle of a hip or shoulder joint is low. Complete tetraplegics may be tested for upper limb function in their wheelchair.

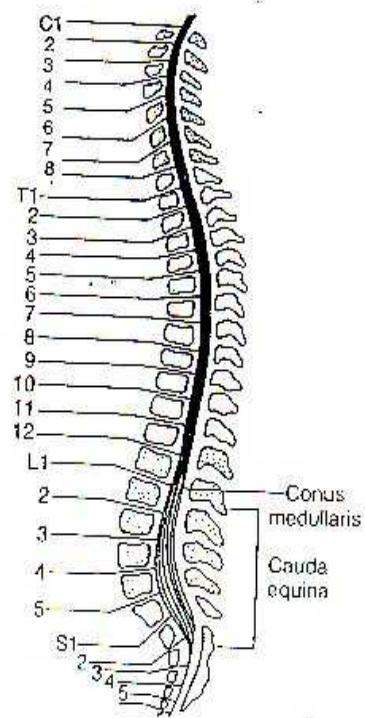
Points score of the upper trunk extension in the case of complete tetraplegics and paraplegics:

Class	Points
C8 complete	0 points
T1 - T5 complete	1 - 2 points
T6 - T10 complete	3 - 5 points

Rods or surgical instrumentation which cover an extensive area [ie the lumbar spine and part of the thoracic spine] makes grading trunk muscles difficult as the range can be quite restricted. The swimmer with rods will often score very low on the bench. During water testing, the true function of the trunk can then be calculated and points awarded accordingly. However, in some cases, there are swimmers who have rods and no muscle function of the trunk. The trunk function during the water test for these swimmers can be deceptive. To determine the appropriate points for the trunk, the position of the legs should be noted eg a swimmer with rods who is class S5 [nil to minimal upper abdominals] will have a trunk position like class S6 but leg position like class S5.

KEY MUSCLE INNERVATION FOR SPINAL CORD LEVEL

Elbow Flexors	C5
Wrist Extensors	C6
Elbow Extensors	C7
Finger Flexors	C8
Finger Adductors	T1
Abdominal Innervations Begins	T6
Abdominal Innervation Complete	T12/L1
Hip Flexors	L2
Knee Extensors	L3
Ankle Dorsiflexors	L4
Long Toe Extensors	L5
Ankle Plantarflexors	S1



COORDINATION TESTING

Points system Coordination [Spasticity, Athetosis, Ataxia].

All coordination tests are carried as repetitions of sequences of movements. When necessary the swimmer may be required to increase the pace or speed of the movement. The resulting pattern of movement is allocated a grade according to the following scale :

0. No functional movement at all.
1. Very severely restricted range of movement due to severe hypertonic muscle stiffness and/or very minimally coordinated movements.
2. Severely restricted range of movements with severe spasticity-hypertonic muscle stiffness present and/or severe coordination problems.
3. Moderate range of movement, moderate spasticity with tone restricting movement and/or moderate coordination problems.
4. Almost full range of movement, with slight spasticity and slight increase in muscle tone and/or slight coordination problems.
5. Normal.

Swimmers with Cerebral Palsy [CP], [and other swimmers with coordination problems due an eligible central nervous system disorder] with spasticity/ataxia and/or athetosis, will be tested with an active tempo-motion test. The test takes into account the coordination and/or free mobility with the spasticity and/or athetosis. The sequences of movement must be tested as alternating, of the upper/lower limbs. Simultaneous movements of lower limbs when testing for breaststroke should also be taken into consideration. Associated reactions have to be watched carefully.

Swimmers are tested in prone and supine. The effect of spasticity may increase/decrease dependent on the position of the body. Testing may be repeated with the neck turned to the side/sides to note influence of the postural reflexes [Asymmetrical Tonic Neck Reflex - ATNR]. These should be taken into consideration as to their overall effect on the swimming strokes.

Swimmers with marked athetosis or ataxia will often display significant coordination problems during the bench test. Water resistance will partly compensate for the missing coordination effect of the antagonists [ataxia, athetoid] and therefore better coordination may be observed during the water test.

Testing positions for the bench test.

A bench with sufficient place for arm movement should be used.

Note: The swimmer is to be scored on controlled movements.

Supine:

- * All movements of the arms - alternating.
- * Lower limbs - Flexion at hips
Abduction/adduction at hips
All ankle movements
- * Have the swimmer in a semi reclined position, supported at their back while performing tests of the lower limbs.

Prone:

- * Extension and rotation of the trunk can be observed as a holding position rather than as a coordination test - do not score points.
- * Knee Flexion - Extension.
- * Hip Internal and External Rotation
- * Request the swimmer to perform a breaststroke kick - this takes into account the hip, knee and ankle functions.

Trunk Calculations:

Testing the trunk for coordination cannot be performed as for the limbs. To arrive at a point score that truly reflects the trunk in terms of coordination both upper and lower limb coordination scores are taken into account and then **averaged** for the full trunk.

- Examples:
- i] If a swimmer has scored 3's for the upper and lower limbs then the full trunk score would be 3's.
 - ii] If a swimmer scores well for the upper limbs [4's] but poorly for the lower limbs [2's], an average of 3 would be used for the full trunk score.
 - iii] If the swimmer is a hemiplegic, an average of the trunk score is used ie if they have scored 4's on the right side and 2's on the left side for their upper and lower limbs, then the average for the full trunk would be 3's

For the test of coordination in the water it must be assessed to what extent the arms and legs are brought into action for the propulsion and to what extent the trunk actually can support these movements for mobility and stabilisation.

If a limb cannot be used at all for a functional action, nor brought into a favourable position in the water because of the spasticity or weak muscle points, the active function is to be judged as 0 function.

JOINT MOBILITY TESTING

The testing of the joint measurements shall be a joint mobility adapted testing for the specific functional range of movements for swimming. [FROMS]

The following procedure shall be adopted:

- i] the diagram must show the active range of movement
- ii] highlight the range of movement that is active
- iii] in the case of fixed joints it is necessary to mark the fixed position

Note other considerations when testing:

- If there is no active range of motion but the pressure of the water fixes the limb/joint into a position that is of an advantage to the swimmer, this must be taken into account.
- Ensure that the knee is in a bent position when testing hip flexion.

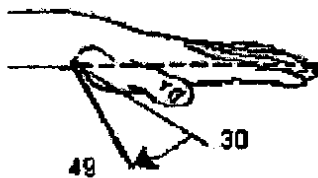
JOINT MOBILITY SCALE

- 0 No FROMS
- 1 Slight FROMS
- 2 25% FROMS
- 3 50% FROMS
- 4 75% FROMS
- 5 Normal functional range of movement for swimming

Example:

When the range of movement of the joint does not start or finish at the ends of the defined ranges the total of the remaining range, within the FROMS, will be used as the range to be scored.

For example: wrist flexion starting at 30 degrees of flexion



$$49 - 30 = 19 \text{ degrees}$$

graded as 2 points

UPPER LIMBS

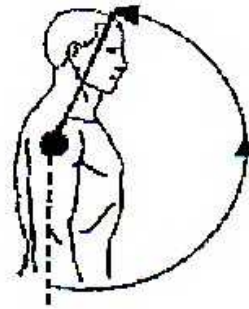
Shoulder

Flexion

1	-	40	=	1
41	-	80	=	2
81	-	120	=	3
121	-	160	=	4
161	+		=	5

22 23

24



Extension

1	-	8	=	1
9	-	16	=	2
17	-	24	=	3
25	-	32	=	4
33	+		=	5

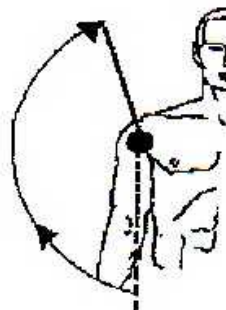


25

26

Abduction

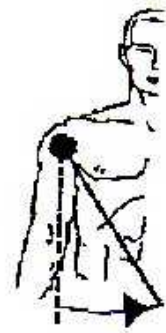
1	-	40	=	1
41	-	80	=	2
81	-	120	=	3
121	-	160	=	4
161	+		=	5



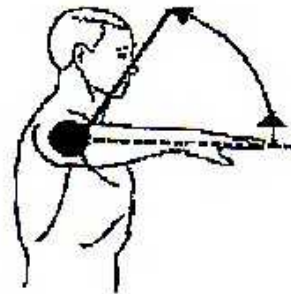
27

Adduction

1	-	8	=	1
9	-	16	=	2
17	-	24	=	3
25	-	32	=	4
33 +			=	5

**External Rotation**

1	-	14	=	1
15	-	28	=	2
29	-	42	=	3
43	-	56	=	4
57 +			=	5

Side View**Frontal View****Internal Rotation**

1	-	14	=	1
15	-	28	=	2
29	-	42	=	3
43	-	56	=	4
57 +			=	5

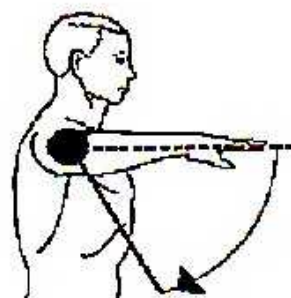
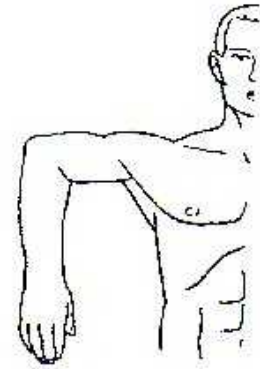
Side View

Figure 3

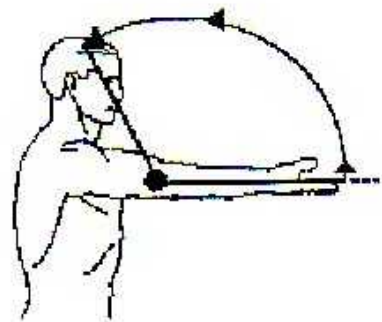
Frontal View



Elbow

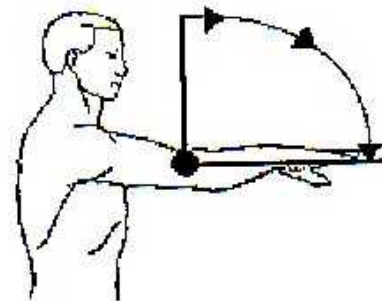
Flexion

1 -	30	=	1
31 -	60	=	2
61 -	90	=	3
91 -	120	=	4
121 +		=	5



Extension Function

90 Flex -	72 Flex	=	1
71 Flex -	52 Flex	=	2
51 Flex -	36 Flex	=	3
35 Flex -	18 Flex	=	4
17 Flex -	0 Flex	=	5



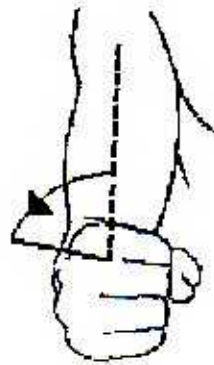
Pronation

1 -	20	=	1
21 -	40	=	2
41 -	60	=	3
61 -	80	=	4
81 +		=	5



Supination

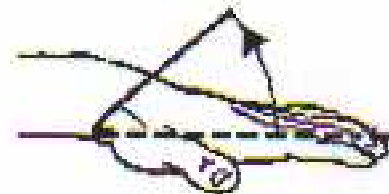
1	-	20	=	1
21	-	40	=	2
41	-	60	=	3
61	-	80	=	4
81 +			=	5

**Wrist****Flexion**

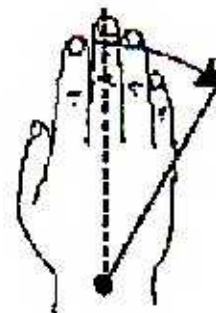
1	-	12	=	1
13	-	24	=	2
25	-	36	=	3
37	-	48	=	4
49 +			=	5

**Extension**

1	-	10	=	1
11	-	20	=	2
21	-	30	=	3
31	-	40	=	4
41 +			=	5

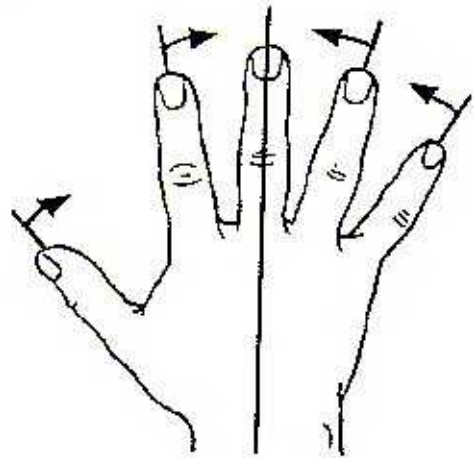
**Ulna Abduction**

1	-	6	=	1
7	-	13	=	2
14	-	21	=	3
22	-	29	=	4
30 +			=	5



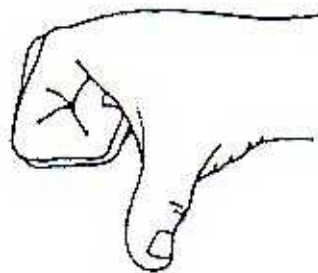
Finger Adduction

For finger 1 [thumb] 2 points
For finger 2 1 point
For finger 4 1 point
For finger 5 1 point



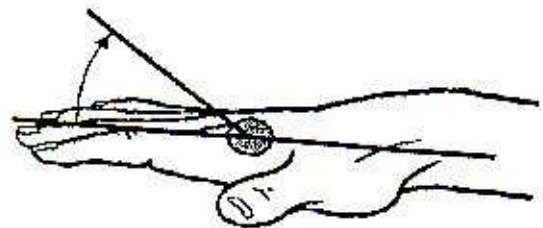
Flexion

1 point for each finger



Extension

1 point for each finger

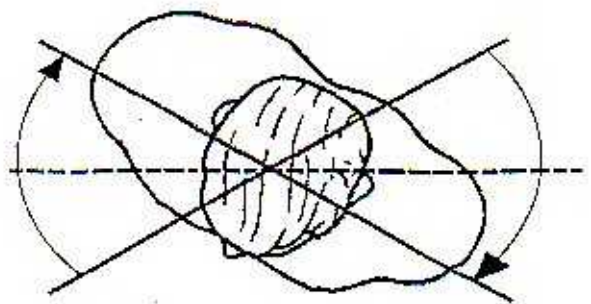


Trunk

Restricted trunk flexion/extension has to be assessed functionally and points given accordingly.

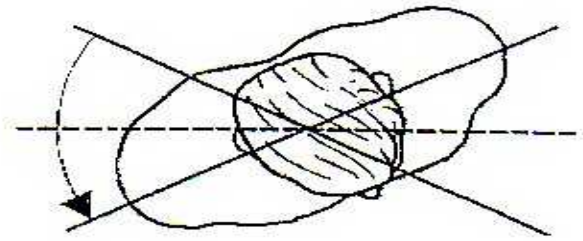
Rotation Right [in sitting position]

1 - 12 = 1
13 - 24 = 2
25 - 36 = 3
37 - 48 = 4
49 + = 5



Rotation Left [in sitting position]

1	-	12	=	1
13	-	24	=	2
25	-	36	=	3
37	-	48	=	4
49+			=	5

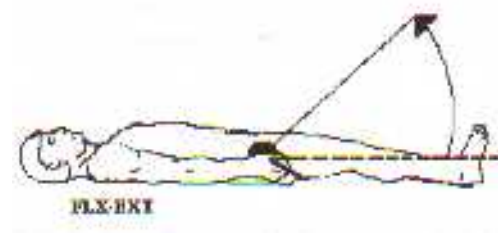


Hip

Flexion S Class

0	-	10	=	1
11	-	20	=	2
21	-	30	=	3
31	-	40	=	4
41+			=	5

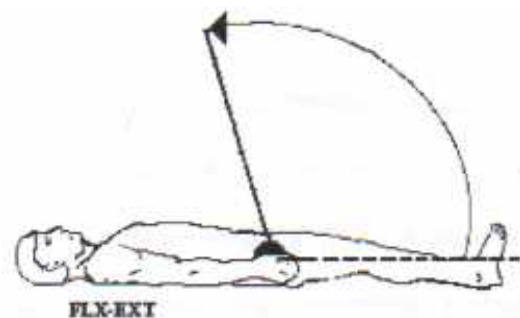
Knee to be in a flexed position



Flexion SB Class

0	-	30	=	1
31	-	60	=	2
61	-	90	=	3
91	-	120	=	4
121 +			=	5

Knee to be in a flexed position



Extension Function

45 Flex	-	31 Flex	=	1
30 Flex	-	16 Flex	=	2
15 Flex	-	1 Flex	=	3
0	-	15 Ext	=	4
15+ Ext			=	5



Abduction

1	-	8	=	1
9	-	16	=	2
17	-	24	=	3
25	-	32	=	4
33+			=	5

Adduction

1	-	6	=	1
7	-	12	=	2
13	-	18	=	3
19	-	24	=	4
25+			=	5

External Rotation

1	-	10	=	1
11	-	20	=	2
21	-	30	=	3
31	-	40	=	4
41 +			=	5

**Frontal View****Side View
For Measuring
Hip Rotation**

Internal Rotation

1	-	8	=	1
9	-	16	=	2
17	-	24	=	3
25	-	32	=	4
33 +			=	5



Knee

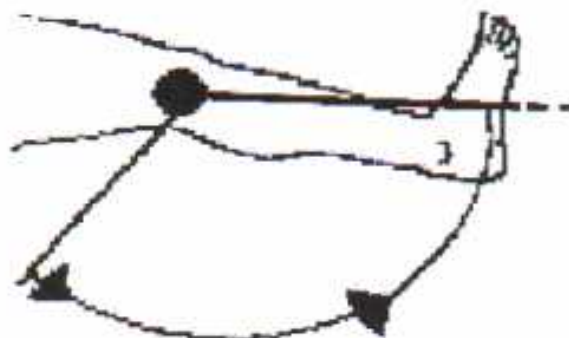
Flexion

0	-	30	=	1
31	-	60	=	2
61	-	90	=	3
91	-	120	=	4
121 +			=	5



Extension Function

120 Flex	-	95 Flex	=	1
94 Flex	-	75 Flex	=	2
74 Flex	-	50 Flex	=	3
49 Flex	-	25 Flex	=	4
24 Flex	-	0 Flex	=	5



Ankle
S Class only

Dorsiflexion [knee in flexion]

40 Flex - 33 Flex	= 1
32 Flex - 25 Flex	= 2
24 Flex - 17 Flex	= 3
16 Flex - 9 Flex	= 4
8 Flex +	= 5



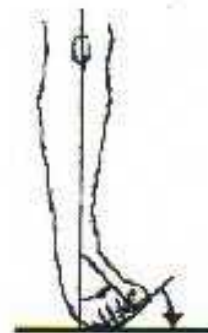
Plantarflexion [knee in flexion]

8 Flex - 16 Flex	= 1
17 Flex - 24 Flex	= 2
25 Flex - 32 Flex	= 3
33 Flex - 40 Flex	= 4
41 Flex +	= 5



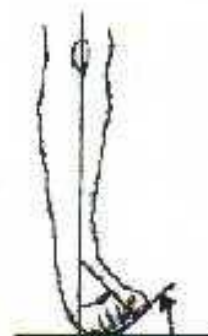
Eversion [pronation, abduction, dorsiflexion]

30 Inv - 23 Inv	= 1
22 Inv - 15 Inv	= 2
14 Inv - 8 Inv	= 3
7 Inv - 0 Inv	= 4
0 Inv +	= 5



Inversion [supination, adduction, plantarflexion]

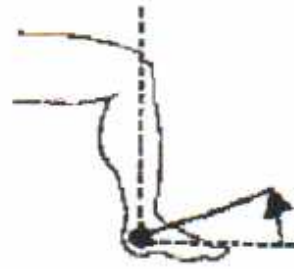
0 - 7	= 1
8 - 14	= 2
15 - 22	= 3
23 - 30	= 4
30 +	= 5



Ankle
SB Class only

Dorsiflexion [knee in flexion]

1 - 5	= 1
6 - 10	= 2
11 - 15	= 3
16 - 20	= 4
21+	= 5



Plantarflexion

1 - 10	= 1
11 - 20	= 2
21 - 30	= 3
31 - 40	= 4
41+	= 5

Pronation [Eversion]

1 - 5	= 1
6 - 10	= 2
11 - 15	= 3
16 - 20	= 4
21+	= 5



Supination [Inversion]

1 - 8	= 1
9 - 16	= 2
17 - 24	= 3
25 - 32	= 4
33+	= 5



EXPLANATORY NOTE : ANKLE/FOOT MEASUREMENT & INTERPRETATION

The amount of functional ankle /foot range used in S strokes is very different to SB strokes. This necessitates a difference in the allocation of points.

S strokes require an ankle/foot to be mostly plantarflexed and supinated.

SB strokes require the ankle/foot to utilise all available range.

The previous pages show how the points are allocated. This is the recommended method.

Measure ranges first and record on diagram

Supination/Pronation

- Place the foot on a flat surface eg. clipboard with the knee bent and the foot in a neutral position of all movements.
- Ask the swimmer to supinate their foot while keeping their heel on the surface. The hip and knee should be stabilised. The goniometer axis should be lined up on the 5th metatarsal/lat border of foot. The movement arm of the goniometer should be read through the 1st metatarsal/big toe. Record end of active range and mark on diagram
- Repeat for pronation but reverse the goniometer axis to the 1st metatarsal/big toe with the movement arm read on the 5th metatarsal. Record end of active range and mark on diagram

Dorsiflexion/Plantarflexion

- Line the goniometer axis below the lateral malleolus and the movement arm through the 5th metatarsal. Start measurement when the range is available at 0 degrees. The knee must be bent.
- Ask the swimmer to dorsiflex. Record end of active range and mark on diagram
- Repeat for plantarflexion. Record end of active range and mark on diagram

Allocation of Points

Use pages 26-27 to allocate the points.

S – Dorsiflexion starts at 40 degrees of plantarflexion. Points are awarded for the amount of movement achieved from this point moving towards neutral. The ankle does not have to achieve neutral range as this is not required during the stroke. Dorsiflexion is essentially measured in what is considered plantarflexion. The movement direction is important. Starts at 40° of plantarflexion and ends at 8° + plantarflexion.

SB – Dorsiflexion starts at neutral and points are allocated for the active range available from neutral. Starts at 0° and ends at 21° + dorsiflexion [NB: This range is NOT measured in S].

S – Plantarflexion starts at 8 degrees of plantarflexion and points are awarded for active movement up to 41° + Starts at 8° plantarflexion and ends at 41° + (Plantarflexion range from 0-8 degrees is not allocated points)

SB – Plantarflexion starts at 0 degrees and points are allocated for the active range available from neutral. Starts at 0° and ends at 41° + [NB: The initial part of this range is NOT measured in S].

S – Supination starts at 0° and ends at 30° +

SB – Supination starts at 0° and ends at 33° +

S – Pronation starts at 30° of supination/inversion and ends at 0° +. [NB: This range is NOT Measured in SB]

SB – Pronation starts at 0° and ends at 21° +

The arrows on the diagram indicate the direction of the movement. If the movement does not begin or end at the defined points, use the available active range and calculate a percentage to allocate the points [see percentage guide on the classification sheet ie 25% = 2 etc].

MEASUREMENT OF AMPUTATED/DYSMELIC LIMB

The figures of measurements, in centimetres must be highlighted on the body chart from the distal point of the stump to the next marked measuring point above. The relevant part of the other limb must also be measured.

The point system [pgs 31-34] are used to allocate the point score of the remaining limb. When a corresponding segment is not available for comparison to allocate points and the swimmer does not fit a profile, paper calculations based on the body segment parameters can be used [these are found pages following the points system].

Note: When taking measurements for double above knee amputees/dysmelia take the measurement from the point of the elbow [the olecranon process] to the tip of the middle finger. The reason for doing this measurement is that when the femur is intact, the length from the greater trochanter to the lower end of the femur is the same as from the olecranon process to the tip of the middle finger.

Note 1:

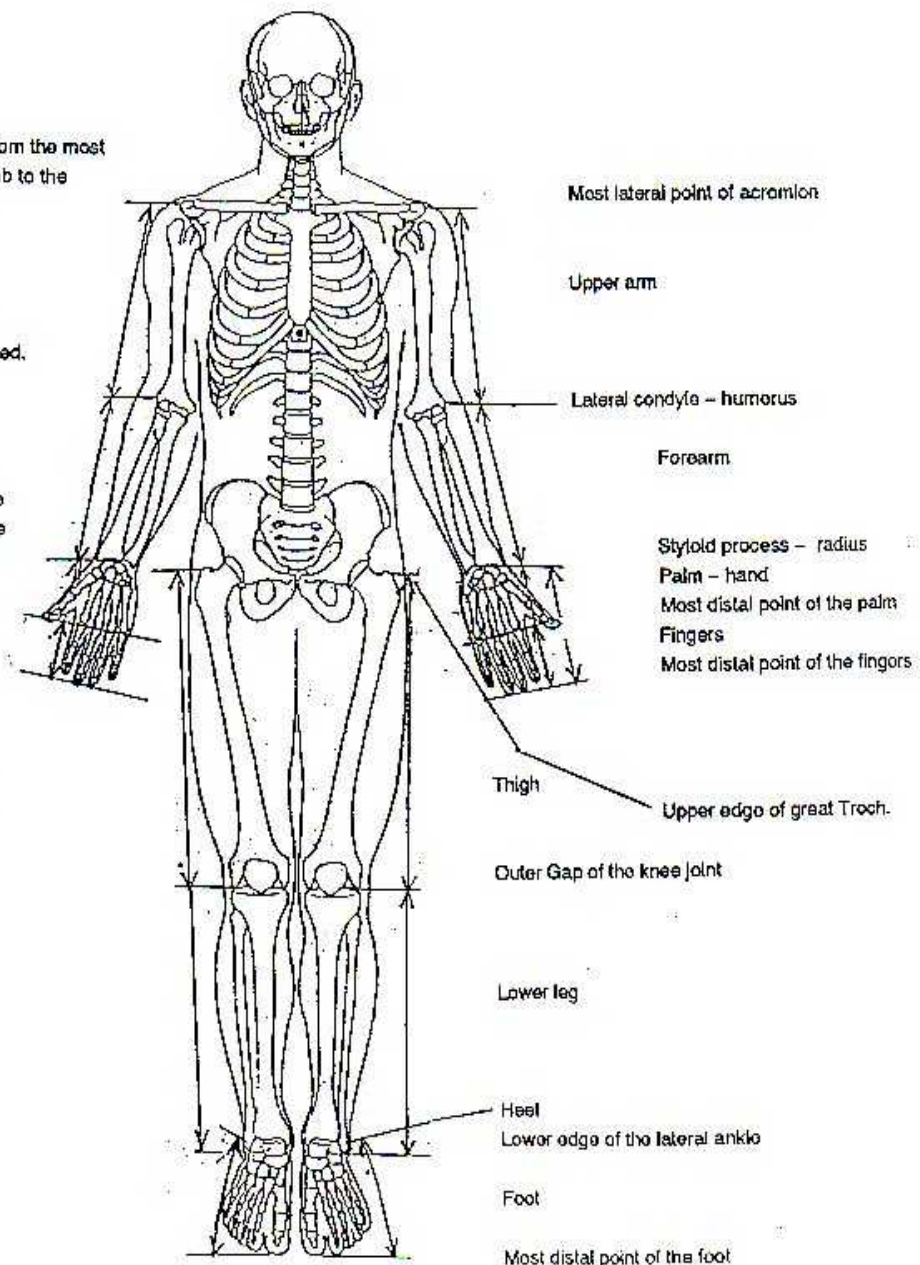
The measuring must be done from the most distal point of the amputated limb to the next anatomical point above

Note 2:

The relevant part of the other arm or leg must also be measured.

Example:

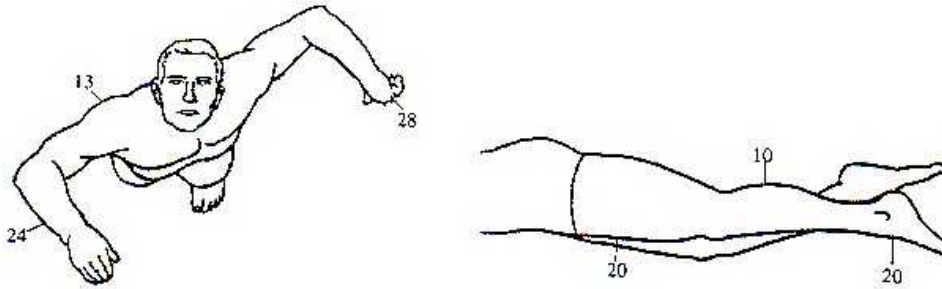
If a person has a right side below knee amputation, the stump will be measured from the most distal point of the stump to the outer gap of the knee joint. Additionally the left lower leg must be measured from the lower edge of the lateral ankle to the outer gap of the knee joint. From the figures of the two measurements, it can be worked out what part of the lower leg is remaining [1/4, 1/3, 1/2, 2/3, 3/4]



POINT SYSTEM FOR AMPUTATIONS

Limb Proportion and Points of Distribution:

S Strokes - Freestyle, Backstroke, Butterfly

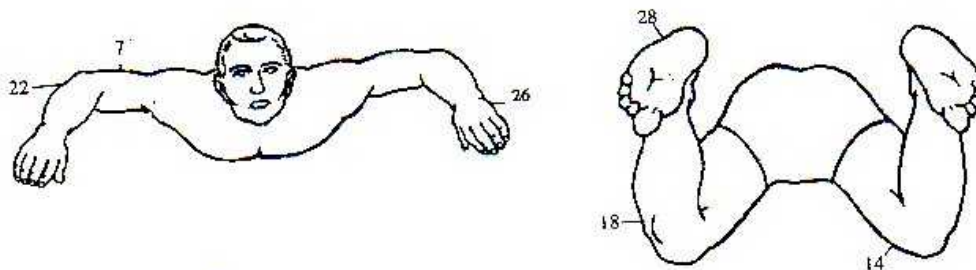


Points allocated for arms
Points allocated for legs

65 points and 65 points
50 points and 50 points

Total 130 points
Total 100 points

SB Stroke - Breaststroke



Points allocated for arms
Points allocated for legs

55 points and 55 points
60 points and 60 points

Total 110 points
Total 120 points

Normally amputee/dysmelic swimmers will be classified according to the profiles of each class. However in cases where the swimmer does not fit the profiles listed the following needs to be consulted.

i] UPPER LIMBS

	S Strokes		SB Strokes	
<i>Upper arm</i> amputation	Right	Left	Right	Left
Full upper arm remaining	13	13	7	7

	S Strokes	SB Stroke
Points for one limb		
No upper arm remaining	0	0
1/4 upper arm remaining	3	1
1/3 upper arm remaining	4	2
1/2 upper arm remaining	6.5	3
2/3 upper arm remaining	8	3.5
3/4 upper arm remaining	9	4

	S Strokes		SB Stroke	
<i>Lower arm</i> amputation	Right	Left	Right	Left
Upper arm remaining	13	13	7	7
Lower arm remaining	24	24	22	22
	37	37	29	29

	S Strokes	SB Stroke
Points for one limb		
No lower arm remaining	13 + 0 = 13	7 + 0 = 7
1/4 lower arm remaining	13 + 4 = 17	7 + 5.5 = 12.5
1/3 lower arm remaining	13 + 7 = 20	7 + 7 = 14
1/2 lower arm remaining	13 + 11 = 24	7 + 11 = 18
2/3 lower arm remaining	13 + 15 = 28	7 + 14 = 21
3/4 lower arm remaining	13 + 17 = 30	7 + 15 = 22

	S Strokes		SB Stroke	
<i>Hand</i> amputation	Right	Left	Right	Left
Upper arm remaining	13	13	7	7
Lower arm remaining	24	24	22	22
Palm remaining	18	18	16	16
	55	55	45	45

	S Stroke	SB Stroke
Points for one limb		
No palm remaining	13 + 24 + 0 = 37	7 + 22 + 0 = 29
1/4 palm remaining	13 + 24 + 4.5 = 41.5	7 + 22 + 4 = 33
1/3 palm remaining	13 + 24 + 6 = 43	7 + 22 + 6 = 35
1/2 palm remaining	13 + 24 + 9 = 46	7 + 22 + 8 = 37
2/3 palm remaining	13 + 24 + 12 = 49	7 + 22 + 10 = 39
3/4 palm remaining	*13 + 24 + 13.5 = 50.5	*7 + 22 + 12 = 41



Palm Measurements are taken from base of the wrist to the base of the middle finger and across the palm to the base of the web space between the thumb and index (metacarpophalangeal joint) to calculate area.

	S Strokes		SB Strokes	
	Right	Left	Right	Left
Finger amputation				
Upper arm remaining	13	13	7	7
Lower arm remaining	24	24	22	22
Palm remaining	18	18	16	16
Fingers remaining	10	10	10	10
	65	65	55	55

	S Stroke	SB Stroke
Points for one limb		
No fingers remaining	$*13 + 24 + 18 + 0 = 55$	$*7 + 22 + 16 + 0 = 45$
One finger remaining	$*13 + 24 + 18 + 2 = 57$	$*7 + 22 + 16 + 2 = 47$
Two fingers remaining	$*13 + 24 + 18 + 4 = 59$	$*7 + 22 + 16 + 4 = 49$
Three fingers remaining	$*13 + 24 + 18 + 6 = 61$	$*7 + 22 + 16 + 6 = 51$
Four fingers remaining	$*13 + 24 + 18 + 8 = 63$	$*7 + 22 + 16 + 8 = 53$

Note: Minimal handicap minus 15 points. [*Denotes not eligible if only disability.]
10 points are allocated for the 5 digits of the hand which include the thumb.

ii] LOWER LIMB

	S Strokes		SB Strokes	
	Right	Left	Right	Left
Thigh amputation				
Full thigh remaining	20	20	14	14

	S Strokes	SB Stroke
Points for one limb		
No thigh remaining	0	0
1/4 thigh remaining	4	2
1/3 thigh remaining	8	3
1/2 thigh remaining	12	5
2/3 thigh remaining	16	9
3/4 thigh remaining	18	11

	S Strokes		SB Stroke	
	Right	Left	Right	Left
Lower leg amputation				
Full thigh remaining	20	20	14	14
Lower leg remaining	10	10	18	18
	30	30	32	32

	S Strokes	SB Stroke
Points for one limb		
No lower leg remaining	$20 + 0 = 20$	$14 + 0 = 14$
1/4 lower leg remaining	$20 + 1 = 21$	$14 + 4 = 18$
1/3 lower leg remaining	$20 + 3 = 23$	$14 + 5 = 19$
1/2 lower leg remaining	$20 + 5 = 25$	$14 + 7 = 21$
2/3 lower leg remaining	$20 + 7 = 27$	$14 + 12 = 26$
3/4 lower leg remaining	$20 + 8 = 28$	$14 + 14 = 28$

	S Strokes		SB Stroke	
Foot amputation	Right	Left	Right	Left
Full thigh remaining	20	20	14	14
Full lower leg remaining	10	10	18	18
Full foot remaining	20	20	28	28
	50	50	60	60

	S Strokes		SB Stroke	
Point for one limb				
No foot remaining	20 + 10 +	0 = 30	14 + 18 +	0 = 32
1/4 foot remaining	20 + 10 +	5 = 35	14 + 18 +	7 = 39
1/3 foot remaining	*20 + 10 + 10	= 40	14 + 18 +	9 = 41
1/2 foot remaining	*20 + 10 + 14	= 44	14 + 18 + 13	= 45
2/3 foot remaining	*20 + 10 + 18	= 48	*14 + 18 + 18	= 50
3/4 foot remaining	*20 + 10 + 20	= 50	*14 + 18 + 21	= 53

Note: Minimal handicap minus 15 points [* Denotes not eligible if only disability.]

LOWER LIMB LENGTH

When there is a lower limb difference of 20 cm without any other disability it will be considered minimal disability.

The minimal disability comes from a calculation of 13 points of the short lower limb length plus 1 point for the dive and the turn.

Note: *This is the only situation where points for a dive and a turn will be taken into account when calculating the minimal disability.*

The scoring of the lower limb difference will be taken from an 8 cm loss and upwards in the following manner:

0 to 7.9 cm	0 points
8 to 8.9 cm	1 point
9 to 9.9 cm	2 points
10 to 10.9 cm	3 points
11 to 11.9 cm	4 points
12 to 12.9 cm	5 points
13 to 13.9 cm	6 points
14 to 14.9 cm	7 points
15 to 15.9 cm	8 points
16 to 16.9 cm	9 points
17 to 17.9 cm	10 points
18 to 18.9 cm	11 points
19 to 19.9 cm	12 points
20cm and upwards	13 points

When a disability is scored for any given class, shortness of the lower limb will be measured, and the relevant number of points will be used in calculating the score.

PAPER CALCULATIONS FOR DYSMELIA AND MULTIPLE AMPUTATIONS

*(This sheet is to be used as a **guide** only – **not to be used for straight profile swimmers**)*

NB: Trunk length is often abnormal which affects calculations

Measurement from Head to buttock = cm = (X)

Estimate body height in M (males) = $X / 0.52$ = cm = (A)

F (females) = $X / .0533$ =cm = (A)

Body Segment Parameters = B			Est Length A x B = C	Measured Length = D		Est % of Limb present D/C = E		S	SB	Points for remaining limb			
										S points		SB points	
										S x E		SB x E	
Parts	Male	Female		R	L	R	L	POINTS	POINTS	R	L	R	L
Arm	0.189	0.193						13	7				
Forearm	0.145	0.152						24	22				
Hand	0.128	0.11						28	26				
Thigh	0.245	0.242						20	14				
Leg	0.242	0.234						10	18				
Foot	0.152	0.151						20	28				
Trunk	0.520	0.533						25	20				
Subtract 2 points for every finger missing & allow for reduced movement when arriving at totals													
								TOTAL		S		SB	
								CLASS					

APPENDIX IV • BODY SEGMENT PARAMETERS

This is used in the case of halfthird of limbs where there is a difference as to the class in which the swimmer should be classified.

Ref: R Contini (1972) *Body Segment Parameters-Part II, Artificial Limbs*, 16 (1) 1-19.

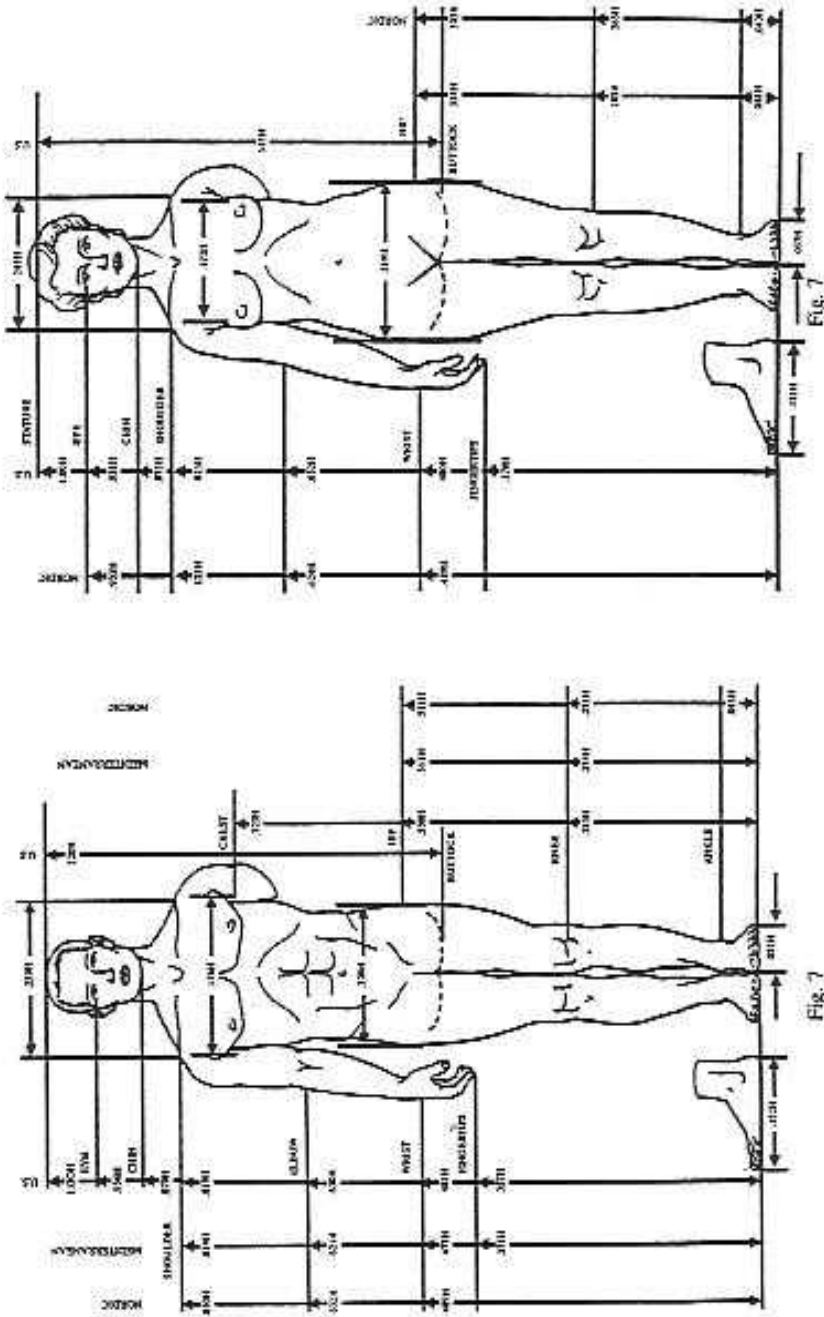


Fig. 7

DROPPED SHOULDER TEST

The following tests must be performed and recorded on the classification sheet when a swimmer has a disability affecting the upper limb that has the potential to cause a 'dropped shoulder' that may cause his/her disqualification. The result of the test will be relayed to the swimming officials during competition.

1. Measure the clavicle at full retraction of the shoulder and/or stump – from mid point of the sternal notch to the extreme end of the clavicle [acromioclavicular joint] mark and record on the amputation figure page 2 of the classification sheet.
2. Muscle test retraction and elevation of the shoulder. Observe the movement from the front and behind the swimmer. Full range of movement of the scapular must be present to give grade 5 and 4. Many upper limb disabilities have restricted range but apparent good strength. Full scapular range is considered functional for butterfly.
3. Note asymmetry of the shoulder [amputation figure page 2 of the classification sheet].
4. Repeat muscle test in a dynamic situation:
The swimmer adopts the swimming position bending forward from the hips [as close to 90 degrees as possible] and performs the butterfly movement of the trunk and upper limbs.

Take into account:

- gravity of arm if present [brachial plexus]
- scapular movement
- line of the scapulas [asymmetry or deviation from horizontal line of the floor]
- position of the head when breathing

Classifiers must observe both from side and front, and make the swimmer perform the test breathing at each side and front, regardless of how the swimmer breathes during competition.

Scoring:

Active test: using standard muscle test [consider restriction of range of movement to reduce muscle test score] from 5 to 0.

Dynamic test:

- | | |
|---|---|
| 5 | Normal |
| 4 | Minimal asymmetrical scapular plane |
| 3 | Moderate asymmetrical scapular plane |
| 2 | Severe asymmetrical scapular plane |
| 1 | Flicker of movement in asymmetrical plane |
| 0 | No movement |

SECTION THREE

CLASS PROFILES ELIGIBILITY FOR COMPETITION

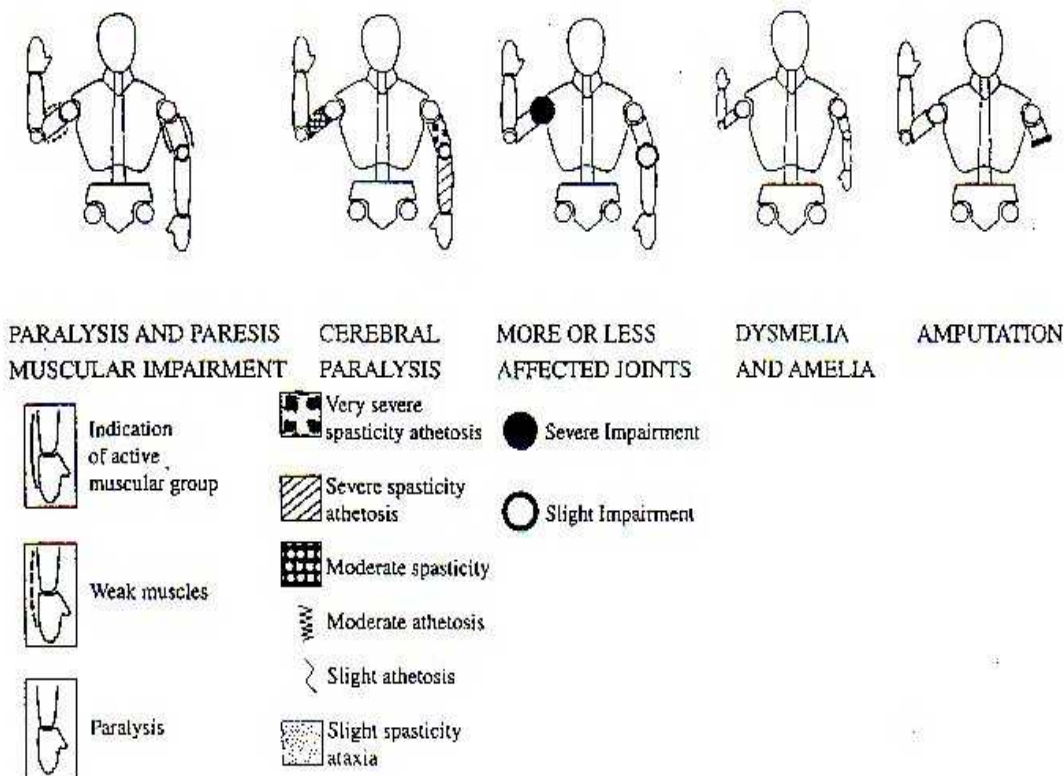
All locomotor swimmers with a disability must have a decrease of at least 15 points, on the bench test, out of 300 points for the S class and 290 points for the SB class, to be eligible.

The disability and practical profiles are guides only. Not all disabilities are mentioned. Disabilities are allocated a class based on the function that is indicated by the class.

The limb proportions as indicated by dysmelic are not exact and therefore should be interpreted as a guide only

CODE FOR DISABILITY PROFILE

CODE FOR DISABILITY PROFILE



NOTE: The following terms are used in relation to the specific disabilities:
 Spinal cord injured: tetraplegia, paraplegia, etc
 Cerebral palsy: quadriplegia, diplegia, hemiplegia, etc.

S CLASS – FREESTYLE, BACKSTROKE, BUTTERFLY

CLASS S1

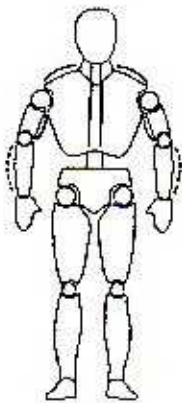
40-65 POINTS

PRACTICAL PROFILE:

1. **Hands** Unable to catch the water due to no hand or wrist control.
Arms Shoulders are affected and bicep control may be affected therefore lacking sufficient muscle control.
Trunk No trunk control therefore unstable in the water.
Legs No leg mobility and normally a severe leg drag. Hips are not able to be held at the water surface. Legs in a flexed position and lack muscle control.
Others Swimmers of this class would normally only perform the double arm backstroke. Usually unable to perform freestyle due to lack of muscle groups to perform this movement.
Starts, Turns Water start with no propulsion away from the wall in both the start and turn. Assistance is required for the start. Feet start is permitted.
2. **Hands** Unable to catch the water due to inability of hand or wrist functional control.
Arms May have involuntary or minimal movements. Has a restriction in the full range of movement and limited coordination.
Trunk No trunk control therefore very unstable in the water. May have involuntary movements.
Legs Legs will drag. May have involuntary movements.
Others Swimmers of this class would normally only perform the double arm backstroke. Would normally not be possible to perform freestyle as they are unable to control the head.
Starts, Turns Water start with no propulsion away from the wall in both the start and turn. Assistance is required for the start. Feet start is permitted.
3. **Hands** No catch is possible
Arms No movement is possible
Trunk Has trunk control
Legs Severe restricted movement in the hips but is able to gain propulsion mainly from the knees.
Others Swimmers in this class would normally perform backstroke.
Starts, Turns Water start and assistance is required. Minimal push from the wall at turns. Feet start is permitted. Starting device is permitted.

DISABILITY PROFILE:

1. Tetraplegia or polio comparable to a complete lesion below C5.
2. Very severe quadriplegia with poor head and trunk control and very limited movements of all limbs for propulsion.
3. Severe arthrogryposis affect all four limbs with severely restricted movement in the upper limbs and limited propulsion in the lower limbs.

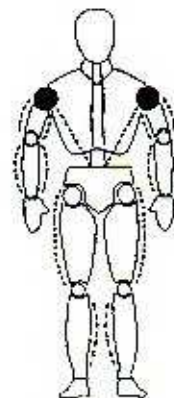
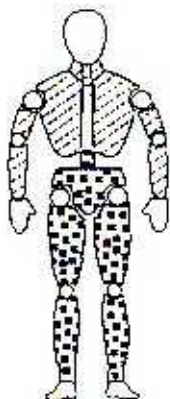
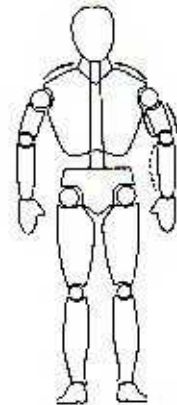
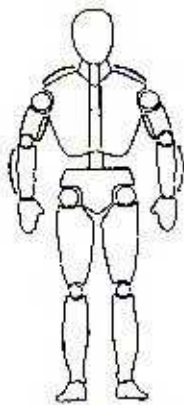


PRACTICAL PROFILE:

- 1a,b]** ***Hands*** Unable to catch the water due to no hand/wrist flexion.
Arms Has no or very affected triceps and therefore has insufficient or lack of muscle control.
Trunk No trunk control and unstable in the water.
Legs No leg mobility and normally a severe leg drag. Hips lying low in the water.
Others Backstroke arm cycle is normally performed because of the insufficient control of the head to turn to breathe in freestyle.
Starts, Turns Water starts with no propulsion away from the wall in the start and turn. Assistance may be required for the start. Feet start is permitted.
- 2.** ***Hands*** Limited catch due to lack of hand/wrist control.
Arms Has a restriction in the range of movement and/or limited coordination.
Trunk No trunk control and unstable in the water.
Legs Leg propulsion will possibly dominate the stroke.
Others This class normally would perform the backstroke because of the insufficient control of the head to turn to breathe in freestyle.
Starts, Turns Water starts with no propulsion away from the wall in the start and turn. Assistance may be required for the start. Feet start is permitted.
- 3.** ***Hands*** Catch may be possible but control of the wrist may not be possible.
Arms Has restriction in the shoulder function and therefore a restricted arm cycle is evident.
Trunk Limited trunk control and therefore unstable in the water.
Legs No leg mobility and normally a severe leg drag. Hips lying low in the water.
Others Would normally perform the backstroke because of the insufficient control of the head to turn to breathe in freestyle.
Starts, Turns Water starts with no propulsion away from the wall in the start and turn. Assistance may be required for the start. Feet may be held to the wall for the start. Feet start is permitted.

DISABILITY PROFILE:

1. a] Tetraplegia or polio comparable to a complete lesion below C6.
b] Tetraplegia comparable to a complete lesion below C7 with additional plexus paralysis or restriction in one arm.
2. Very severe quadriplegia with very limited function in range of movements of the two upper limbs for propulsion.
3. Severe musculoskeletal impairment with very poor shoulder function comparable to complete tetraplegia below C6.

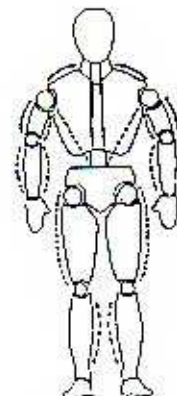
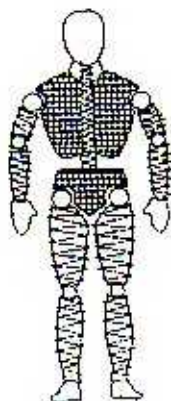
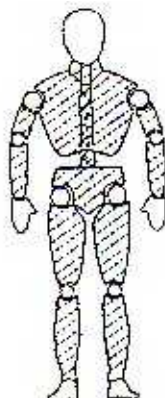
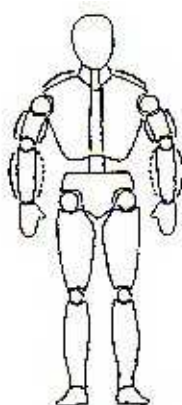


PRACTICAL PROFILE:

- 1a,b]** *Hands* Some weakness in holding the hand in a flexed position and has inability to catch the water effectively. Wrist control is limited.
Arms Satisfactory propulsion from the arm cycle.
Trunk Has minimal to no trunk control.
Legs Definite leg drag with hips lying below the surface of the water.
Others Is able to perform freestyle.
Starts, Turn Normally a water start with minimal push off with the hands is possible in both the start and turn. Feet start is permitted.
- 2a,b,c]** *Hands* Uncoordinated hands and therefore difficulty in catching the water successfully. Wrist control is limited.
Arms Restricted arm cycle due to lack of coordinated movements resulting in limited propulsion.
Trunk Nil to minimal to trunk control. Involuntary movements are evident.
Legs Leg drag.
Others Is able to perform freestyle.
Starts, Turn Normally a water start with minimal push off possible in both the start and turn. Feet start is permitted.
- 3a]** *Hands* In the case of multiple amputees and dysmelia no hands are present.
Arms Limbs are severely shortened but with no restriction.
Trunk Full trunk control is present.
Legs No legs are present that would assist with propulsion.
Others Dolphining movements from the trunk are performed for propulsion.
Start, Turns Normally minimal push off possible for water starts and turns. Assistance at the start may be necessary. Dive starts are possible from a sitting position on the starting platform. Starting device may be used.
- 3b]** *Hands* Some weakness in holding the hand in a flexed position and has inability to catch the water effectively. Wrist control is limited.
Arms Satisfactory propulsion of the arm cycle.
Trunk Nil to minimal trunk control.
Legs Definite leg drag with hips lying below the surface of the water.
Others Is able to perform freestyle.
Starts, Turn Normally a water start with minimal push off with the hands is possible in both the start and turn. Feet start is permitted.
- 3c]** *Hands* Ineffective to no movement.
Arm Ineffective to no movement.
Trunk Near to full trunk control.
Legs Is able to perform a kick movement to gain propulsion. Restriction in hips is evident.
Starts, Turns Normally able to perform a dive and minimal push off at turns. Feet start is permitted. A starting device is permitted.

DISABILITY PROFILE:

1.
 - a] Tetraplegia or polio comparable to a complete lesion below C7.
 - b] Some incomplete tetraplegics below C6 or comparable polio.
2.
 - a] Severe spastic quadriplegia with poor trunk control and asymmetrical movement of the upper limbs for propulsion.
 - b] Severe quadriplegia with spasticity and athetosis involving poor head and trunk control, limited co-ordination for propulsion in all four limbs.
 - c] Moderate quadriplegia, poor trunk control, spasticity and athetosis and/or ataxia with moderate propulsion in all four limbs.
3.
 - a] Severe dysmelia in all four limbs or amputation of all four limbs with short stumps.
 - b] Severe muscular atrophy of both upper and lower limbs.
 - c] Arthrogryposis affecting all four limbs with moderate to fair propulsion of the lower limbs only.

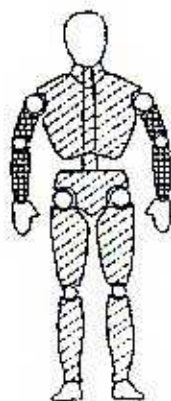
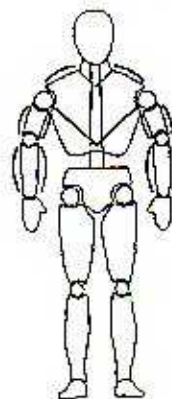
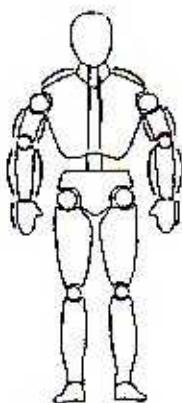


PRACTICAL PROFILE:

- 1a,b]** *Hands* Is able to control the wrist and gain propulsion but does not have full control of the fingers.
Arms Arm cycle is able to be performed but due to lack of muscle function propulsion is not fully effective.
Trunk Nil to minimal trunk control.
Legs Leg drag.
Starts, Turns Normally water start and satisfactory push off with hands possible at starts and turns.
- 2.** *Hands* Due to lack of coordination may have difficulty performing an effective catch.
Arms Arm cycle may not be consistently fluent and due to lack of coordination propulsion is not fully effective.
Trunk Trunk control but involuntary movements evident.
Legs Leg drag.
Others With both arm and leg movements coordination is severe and therefore the swimmer may perform either arm or leg movements only.
Starts, Turns Normally a water start with satisfactory push off with hand from the wall at starts and turns.
- 3a]** *Hands* Is able to control the wrist and gain propulsion and has full control of the fingers.
Arms Arm cycle is able to be performed but due to lack of muscle functions propulsion is not fully effective.
Trunk Nil to minimal trunk control.
Legs Leg drag.
Starts, Turns Normally water start and satisfactory push off with hand possible at starts and turns.
- 3b]** *Hands* Where the hand/s are present normal catch is possible.
Arms Normal cycle possible if limb/s present.
Trunk Trunk control is present.
Starts, Turns Normally water start. Push off is possible at starts and turns. Swimmers may start in a sitting position from the starting block.
- 3c]** *Hands* Able to perform a restricted catch to gain some propulsion.
Arm Restricted arm cycle requiring body rotation movement to complete cycle. Propulsion satisfactory
Trunk Trunk control present.
Legs Restriction evident but able to perform a satisfactory propulsion.
Starts, Turns Normally water start with minimal push off with upper body for starts and turns. Starting device is permitted.

DISABILITY PROFILE:

1.
 - a] Tetraplegia or polio comparable to a complete lesion below C8 with good finger extension.
 - b] Incomplete tetraplegia below C7 or comparable polio.
2. Severe diplegia with involvement of the trunk and limited propulsion in shoulders and elbows.
3.
 - a] Musculoskeletal impairment comparable to complete tetraplegia below C8.
 - b] Severe dysmelia of three limbs.
 - c] Arthrogryposis affecting all four limbs with moderate to fair propulsion from the upper limbs with a possible restricted movement in the lower limbs.

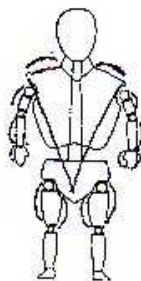
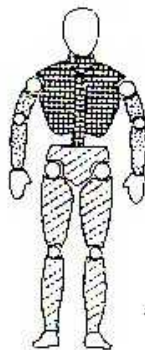
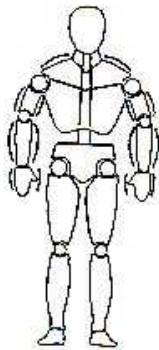


PRACTICAL PROFILE:

- 1a,b]** *Hands* Able to gain full propulsion in the catch phase.
Arms Full effective arm cycle.
Trunk Minimal trunk control. Loss of lower function but some upper trunk may be present.
Legs Hips slightly lower in the water, legs in the definite V shape in the water. Leg drag
Starts, Turns Possibly a water start with push off made with the hand at both the start and turns. Starting in a sitting position, is also possible.
- 2a]** *Hands* Affected to the degree the catch phase does not gain full propulsion.
Arms May not have fully controlled arm cycle. Restriction in shoulder rotation.
Trunk Trunk control satisfactory.
Legs Leg drag.
Starts, Turns Majority would be starting in the water with push off with hand from wall at both the start and turns.
- 2b]** *Hands* Severely affected more on one hand to the degree the catch phase does not gain full propulsion.
Arms Does not have fully controlled arm cycle. Swimmer may use only the less affected side resulting in a better co-ordinated one arm stroke. No control of positioning/streamlining of severe arm
Trunk Satisfactory trunk control.
Legs The legs act as stabilisers rather than for propulsion. One leg is able to perform a limited propulsive kick.
Other The swimmer choosing to perform a one arm stroke may appear to have far lesser coordination problems.
Starts, Turns May dive with assistance, otherwise water start with minimal push off with one leg at both the start and turns.
- 2c]** *Hands* Affected to the degree the catch phase does not gain full propulsion. It is evident the 'feel' of the water is not present.
Arms Does not have fully controlled arm cycle. Excessive turbulence is evident with entry and exit in arm cycle.
Trunk Satisfactory trunk control.
Legs The legs act only as a stabilising factor.
Starts, Turns Majority would be starting in the water with minimal push off from wall at both the start and turns.
- 3a]** *Hands* Able to gain full propulsion in the catch phase.
Arms Full to minimally effective arm cycle.
Trunk Minimal trunk control.
Legs Minimal propulsion gain with an ineffective kick. Legs tend to act more as stabilisers.
Starts, Turns Possibly a water start with push off made with the hand at both the start and turns. Starting on the starting platform, in a sitting position, is also possible.
- 3b]** *Other* Includes some achondroplasias with an additional disability which greatly affects movement/propulsion.
- 3c]** *Hands* Hand/s may not be present. If present able to gain full propulsion.
Arms Full arm cycle although limbs may be shorter.
Trunk Full trunk control.
Legs May gain minimal propulsion or act as a stabilising factor.
Starts, Turns Water start is able to gain some propulsion away from the wall in both the start and turns. Dive start is possible.
- 3d]** *Hands* Catch phase is possible with fair propulsion.
Arms Moderate restriction in the arm cycle. Body rotation is required to gain effective cycle.
Trunk Near to full trunk control.
Legs Movement is evident from the hips with moderate propulsion.
Starts, Turns Dive start is possible. Water start and turns are able to gain some propulsion away from the wall. Starting device may be used.

DISABILITY PROFILE:

1.
 - a] Complete paraplegia or polio comparable to below T1-T8.
 - b] Incomplete tetraplegia below C8 with reasonable trunk function or comparable polio.
2.
 - a] Severe diplegia with fair trunk control and fair propulsion in shoulders and elbows.
 - b] Severe hemiplegia.
 - c] Severe to moderate athetosis/ataxia and spasticity.
3.
 - a] Musculoskeletal impairment comparable to incomplete tetraplegia below C8.
 - b] Achondroplasia: not more than 130cm for women and 137cm for men with additional handicap that causes propulsion problems.
 - c] Moderate dysmelia in three limbs.
 - d] Arthrogryposis affecting all four limbs with moderate to fair propulsion in upper and lower limbs.



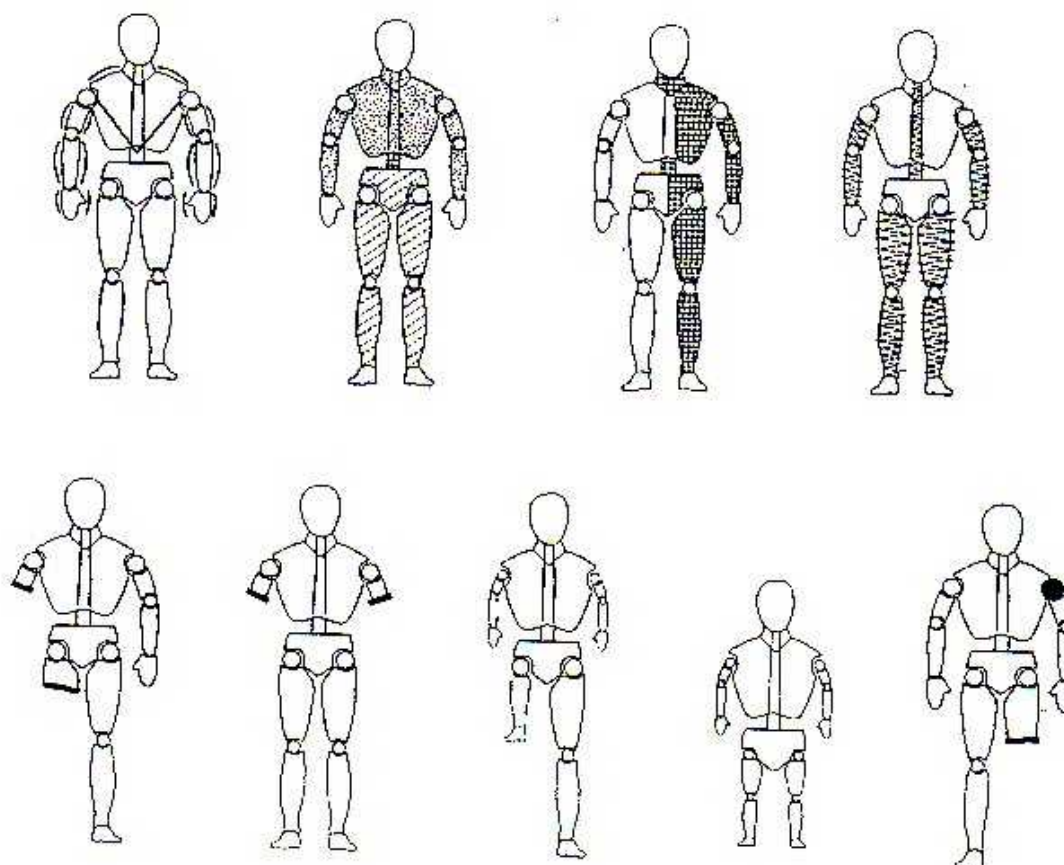
PRACTICAL PROFILE:

1. **Hands** Is able to maintain a correct catch phase of the stroke.
Arms Is able to perform an effective arm cycle gaining full propulsion.
Trunk Loss of lower function but upper trunk is present.
Legs Hips slightly lower in the water, legs wavering and lower in the water but not in the distinct V shape as is common in Class 5.
Starts, Turns Possibly will start in the water while others are able to start from the starting platform in a sitting position. An effective hand push off is possible for water starts and turns.
- 2a] **Hands** Catch is satisfactory but it is noticeable that the 'feel' of the water is lacking.
Arms Arm cycle is restricted in the range but able to gain a satisfactory propulsion. A catchup arm cycle may be performed resulting in arm stroke being more effective.
Trunk Satisfactory control of the full trunk.
Legs Alignment almost symmetrical but some movements are associated with the trunk. Mainly for stabilising rather than propulsion.
Starts, Turns Possibly will start in the water while others are able to start from the starting platform. Assistance will be required. Satisfactory push off is possible in both a water start and turns.
- 2b] **Hands** One hand can maintain a correct catch phase but there is evidence of some involvement.
Arms Arm cycle is restricted in the range but able to perform a satisfactory effective stroke if the less affected limb is used only. The hemi arm is able to be maintained in a streamlined position into the body when performing a one arm stroke.
Trunk Satisfactory trunk control.
Legs A kick is possible with satisfactory propulsion resulting. One leg performs a more effective kick.
Starts, Turns Able to start from the starting platform. Assistance will be required. Satisfactory push off is possible from a water start and also for turns.
- 2c] **Hands** Catch is minimally controlled.
Arms Arm cycle is restricted but able to gain satisfactory propulsion.
Trunk Satisfactory control of the full trunk.
Legs Alignment almost symmetrical but some movements are associated with the trunk. Satisfactory propulsive kick is possible.
Other Once stroke rate is increased the stroke deteriorates resulting in excessive turbulence. A catch up stroke may prevent this dramatic deterioration.
Starts, Turns Starts from the starting platform. Assistance may be required. Satisfactory push off is possible in a turn.
- 3a,b] **Hands** The intact hand is able to maintain the correct catch phase.
Arms Able to perform an arm cycle gaining full propulsion where limb is present.
Trunk Full control is present.
Legs Can gain efficient propulsion and/or stability from the stump and leg/legs.
Starts, Turns Able to start from the starting platform. Able to execute a reasonable push off at turns.
- 4a,b,c] **Hands** Where hand/s are present the correct catch phase is maintained.
Arms Able to perform a satisfactory arm cycle gaining full propulsion where limb/s are present.
Trunk Full control is present.
Legs Can gain efficient propulsion and stability from the stump and leg/legs.
Starts, Turns Able to start from the starting platform. Able to execute a reasonable push off at turns.
- 4d] **Hands** Has good hands with full control to enable the catch phase.
Arms Restriction in one shoulder resulting in not able to gain full arm cycle. One arm able to maintain full arm cycle with full propulsion.
Trunk Minimal loss of balance
Legs Propulsive kick is possible.

Starts, Turns Standing dive is possible. Satisfactory power is gained from water starts and turns.

DISABILITY PROFILE:

1. Complete paraplegia or polio comparable to below T9-L1 with no leg function suitable for swimming.
2.
 - a] Moderate diplegia with fair trunk control and fair to good propulsion in shoulders and elbows.
 - b] Moderate hemiplegia with severe restriction in the more affected upper limb.
 - c] Moderate athetosis and/or ataxia.
3.
 - a] Above elbow and above knee amputation of the same side.
 - b] Double above elbow amputation.
4.
 - a] Congenital amputations of three limbs.
 - b] Dysmelia with shortened arms [2/3 of normal] and above knee amputation.
 - c] Achondroplasia not more than 130 cm for women and 137 cm for men.
 - d] Above knee amputation plus severely functionally restricted shoulder of the same side.



PRACTICAL PROFILE:

1. **Hands** Has good hands with full control to enable the catch phase.
Arms Good arms to maintain full control and power in the stroke phase.
Trunk Lower trunk control loss only.
Legs Hips level with the water line, legs able to be kept streamlined, no kick movement of the legs present but remain close to the surface of the water.
Starts, Turns Some will start in the water while others are able to start from the starting platform in a sitting position. Hand push off in water starts and turns are effective.

- 2a] **Hands** Not able to gain the full 'feel' of the water in the catch phase. This results in full propulsion not being gained.
Arms Some involvement is evident. Arm cycle is performed with minimal restriction and able to gain propulsion. The involvement becomes more apparent when the stroke rate is increased. A catchup freestyle stroke if performed may assist in a more effective propulsion.
Trunk Minimal loss of trunk control.
Legs Leg movement is possible but kick is for stability rather than propulsion.
Starts, Turns Able to start from a standing position on the starting platform. Assistance may be required. A satisfactory push off is possible in water starts and turns.

- 2b] **Hands** One hand gains full control of the catch phase while the other hand gains only minimal propulsion.
Arms Minimal involvement is evident in the better arm. The arm cycle is able to be performed but one arm is not able to perform the full cycle [restricted entry and exit of the water] and satisfactory propulsion is gained.
Trunk Body balance is affected.
Legs Leg movement is possible with an effective propulsion.
Starts, Turns Able to start from the standing position on the starting platform. A satisfactory push off is possible in water starts and turns.

- 3a] **Hands** No hands are present.
Arms Good arm cycle with full control and power in the stroke phase.
Trunk Full control.
Legs Full propulsive kick.
Starts, Turns Full power for starts and turns.

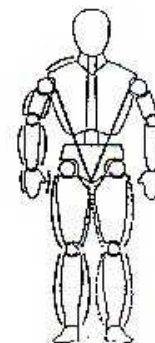
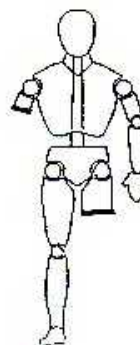
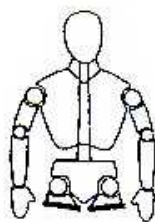
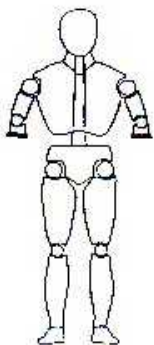
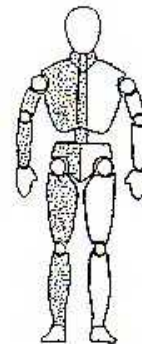
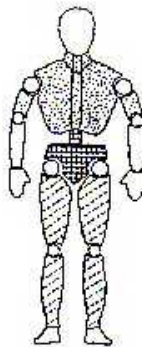
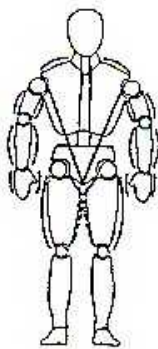
- 3b] **Hands** Full control to enable the catch phase.
Arms Full control and power in the stroke phase.
Trunk Full control. Balance is minimally affected
Legs Some stump movement may be evident but used as balance with no propulsion.
Starts, Turns A sitting dive or water start is acceptable. Hand push off at starts and turns is satisfactory.

- 3c] **Hands** One hand is present with full control to enable the catch phase.
Arms One arm present able to maintain full control and power in the stroke phase.
Trunk Minimal loss of balance.
Legs Full propulsion possible with the one leg.
Starts, Turns Standing dive is possible. Satisfactory power is gained from one leg in water starts and turns. Streamlining is affected.

4. **Hands** Only one hand has full control to enable the catch phase.
Arms Only one arm is able to maintain full control and power in the stroke phase.
Trunk Minimal loss of balance in the trunk.
Legs Propulsion of one leg is effective.
Starts, Turns Standing dive is possible. Satisfactory power is gained from only one leg in water starts and turns.

DISABILITY PROFILE:

1. Complete paraplegia or polio comparable to below L2-L3.
2.
 - a] Moderate diplegia with some minimal upper body and trunk involvement.
 - b] Moderate hemiplegia.
3.
 - a] Double below elbow amputation.
 - b] Double above knee amputation, shorter than 1/2.
 - c] Above elbow and above knee amputation on opposite sides.
4. One paralysed upper limb and severely restricted functions of the leg of the same side.



PRACTICAL PROFILE:

1. **Hands** Catch phase is controlled with full propulsion.
Arms Able to maintain a full controlled arm cycle.
Trunk Minimal trunk control loss.
Legs Kick able to be performed but for balance rather than propulsion. Ankles may be fixed that are not satisfactory for a propulsive kick.
Starts, Turns Standing start but not with full power off the starting platform. Not able to gain full power from the feet from the push off at water starts and turns.

- 2a] **Hands** Catch phase is controlled with full propulsion. Minimal coordination loss
Arms Able to maintain full controlled arm cycle.
Trunk Minimal loss of trunk control.
Legs Kick able to be performed but used for balance rather than propulsion.
Starts, Turns Standing start but may need assistance. Not able to gain full propulsion from the feet from the push off at turns.

- 2b,c] **Hands** Catch phase is controlled to gain propulsion. Minimum involvement is evident.
Arms Able to maintain a controlled arm cycle. Minimum involvement is evident.
Trunk Minimal loss of trunk control.
Legs Satisfactory propulsion.
Starts, Turns Standing start but not able to gain full power off the starting platform. Not able to gain full propulsion from the legs from the push off from the wall at turns.

- 3a] **Hands** Catch phase is controlled and able to gain full propulsion.
Arms Able to maintain a full controlled arm cycle.
Trunk Minimal balance loss of trunk.
Legs Kick may be evident but used for balance rather than propulsion.
Starts, Turns Sitting start or water start is acceptable.

- 3b] **Hands** Catch phase is controlled and able to gain full propulsion.
Arms Able to maintain a full controlled arm cycle.
Trunk Some balance loss of trunk.
Legs Kick is possible resulting in minimal propulsion.
Starts, Turns Kneeling, sitting or water start is acceptable. Minimal push off with the legs from the wall is possible for turns.

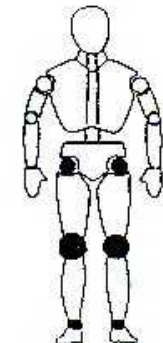
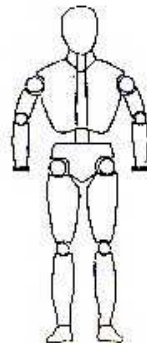
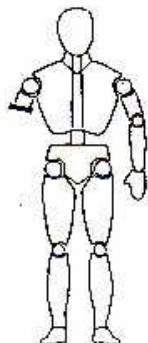
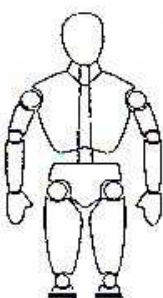
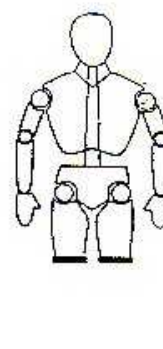
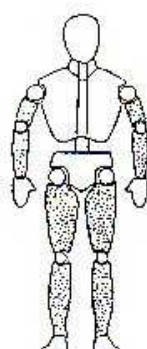
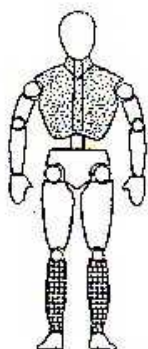
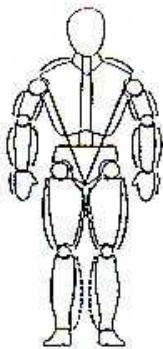
- 3c] **Hands** Catch phase of the one hand is controlled and able to gain full propulsion.
Arms Able to maintain a full controlled one arm cycle.
Trunk Minimal balance loss.
Legs Full propulsive kick.
Starts, Turns Standing start gaining full power off the starting platform. Able to gain full propulsion from the legs at the turns.

- 3d] **Hands** No hands present.
Arms Able to maintain a full controlled arm cycle gaining satisfactory propulsion.
Trunk Full trunk control.
Legs Full propulsive kick.
Starts, Turns Standing start gaining full power off the starting platform. Able to gain full propulsion from the legs at the turns.

4. **Hands** Catch phase is controlled and able to gain full propulsion.
Arms Able to maintain full controlled arm cycle.
Trunk Full trunk control.
Legs Restricted kick movement resulting in minimal propulsion. Kick used for balance.
Starts, Turns Standing start may be possible but minimal power gained from the starting platform. A sit start or water start is acceptable. Limited to no power from the legs at turns.

DISABILITY PROFILE:

1. Complete paraplegia or polio comparable to below L4-L5.
2.
 - a] Minimal diplegia with minimal trunk involvement.
 - b] Minimal evidence of hemiplegia.
 - c] Minimal spasticity in four limbs.
3.
 - a] Double above knee amputation, stumps longer than 1/2.
 - b] Double below knee amputation, not longer than 1/3.
 - c] Single above elbow amputation or comparable functionally complete Brachial Plexus lesion.
 - d] Double hand amputation, 1/4 or palm inclusive.
4. Severe joint restriction in the lower limbs.

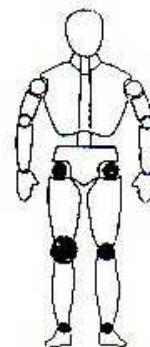
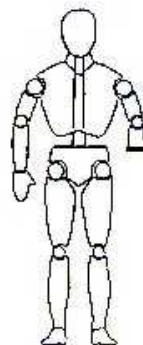
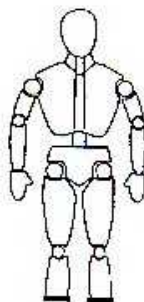
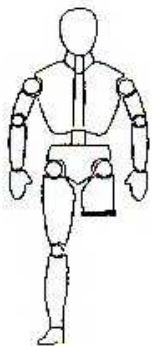
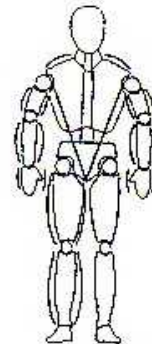
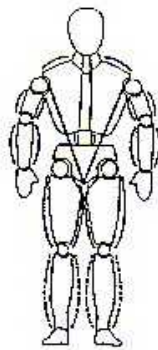


PRACTICAL PROFILE:

- 1a] *Hands* Able to catch the water gaining full propulsion.
Arms Full controlled arm cycle gaining full power in the propulsion phase.
Trunk Full trunk control.
Legs Satisfactory propulsive kick is possible.
Starts, Turns Standing start possible with some power loss off the starting platform. Some power loss from legs at the turns.
- 1b] *Hands* Able to catch the water gaining full propulsion.
Arms Full controlled arm cycle gaining full propulsion.
Trunk Trunk control.
Legs Full propulsive kick is possible with one leg.
Starts, Turns Standing start possible with power from one leg off the starting platform. Full power from one leg push off at turns possible.
2. *Hands* Able to catch the water gaining near full propulsion. Some involvement is evident.
Arms Controlled arm cycle gaining full propulsion. Some involvement evident.
Trunk Trunk control with only slight involvement.
Legs Propulsion kick is possible with minimal involvement.
Starts, Turns Standing start possible with slight power loss off the starting platform. Slight power loss from legs at turn.
- 3a,b] *Hands* Able to catch the water gaining full propulsion.
Arms Full controlled arm cycle gaining full propulsion.
Trunks Full trunk control with minimal balance loss.
Legs Full propulsion kick with one leg.
Starts, Turns Standing start with full power from one leg only off the starting platform. Full power from one leg only from push off at turns.
- 3c] *Hands* Able to catch the water gaining full propulsion.
Arms Fully controlled arm cycle gaining full propulsion.
Trunk Full trunk control.
Legs Moderate propulsive kick possible.
Starts, Turns Standing start with some power loss off the starting platform. Some power loss from push off at turns.
- 3d,e] *Hands* Able to catch the water gaining full propulsion in one hand only.
Arms Full controlled arm cycle gaining full propulsion in one arm and satisfactory propulsion with other arm.
Trunk Full trunk control.
Legs Full propulsive kick.
Starts, Turns Standing start with full power off the starting platform. Full power from push off at turns.
4. *Hands* Able to catch the water gaining full propulsion.
Arms Full controlled arm cycle gaining propulsion.
Trunk Full trunk control.
Legs Kick is possible with satisfactory propulsion.
Starts, Turns Standing start with power loss off the starting platform. Power loss from push off at turns.

DISABILITY PROFILE:

1. a] Walking paraplegia with minimal involvement in limbs.
 b] Polio with one non-functional leg.
2. Slight overall functional co-ordination problems.
3. a] Single above knee amputation.
 b] Single thru knee amputation
 c] Double below knee amputation, stumps longer than 1/3.
 d] Single thru elbow amputation.
 e] Single below elbow amputation.
4. Partial joint restriction in the lower limbs, one side more affected.



PRACTICAL PROFILE:

1. **Hands** Able to catch the water gaining full propulsion.
 Arms Full controlled arm cycle gaining full propulsion.
 Trunk Full trunk control.
 Legs Full propulsive kick in one leg with minimal loss in other.
 Starts, Turns Standing start possible with slight power loss off the starting platform. Slight power loss from legs at the turns.

2. **Hands** Control of catch phase and propulsion is gained. Minimal involvement is evident.
 Arms Able to maintain a full controlled arm cycle with minimal involvement evident.
 Trunk Full trunk control.
 Legs Propulsive kick with minimal involvement in the feet.
 Starts, Turns Minimal loss of power at the start and turns.

- 3a,b] **Hands** Able to catch the water gaining full propulsion.
 Arms Full control arm cycle gaining full propulsion.
 Trunk Full trunk control.
 Legs Full propulsive kick is possible with one leg with minimal propulsive possible and used for stability with the other leg.
 Start, Turns Full power gained from one leg only at starts and turns.

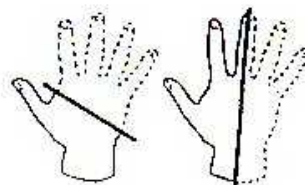
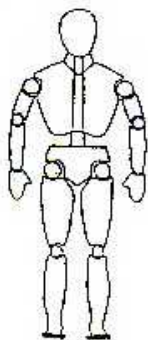
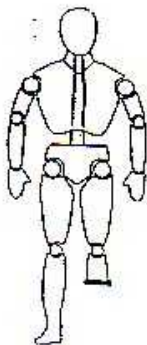
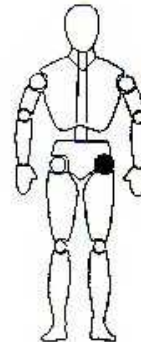
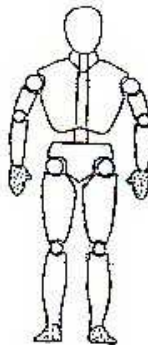
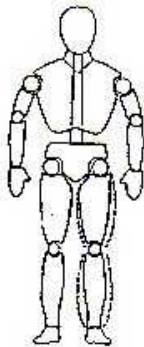
- 4a] **Hands** Able to catch the water gaining full propulsion.
 Arms Full control arm cycle gaining propulsion.
 Trunk Full trunk control with minimal balance loss.
 Legs Full propulsive kick is possible with one leg with satisfactory propulsive possible with the other leg.
 Start, Turns Full power gained from one leg only at starts and turns.

- 4b] **Hands** Able to catch the water gaining full propulsion.
 Arms Full control arm cycle gaining propulsion.
 Trunk Full trunk control.
 Legs Effective propulsive kick is possible.
 Start, Turns Limited power gained from lack of feet at starts and turns.

- 4c] **Hands** Able to catch the water gaining full propulsion from one hand only with satisfactory propulsion being gained with the other.
 Arms Full control arm cycle gaining full propulsion.
 Trunk Full trunk control.
 Legs Full propulsive kick.
 Start, Turns Full power gained at starts and turns.

DISABILITY PROFILE:

1. Polio and cauda-equina syndrome S1/2 minimal affective lower limbs.
2. Clear evidence of slight spasticity and/or ataxia in specific tests.
3.
 - a] Paresis on one leg.
 - b] Severe restriction of one hip joint.
4.
 - a] Single below knee amputation.
 - b] Double foot amputation.
 - c] Hand amputation, loss of 1/2 of the hand.



SB CLASS - BREASTSTROKE

CLASS SB1

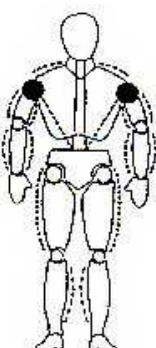
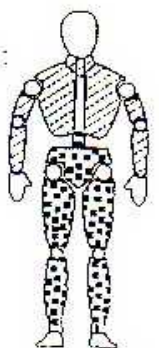
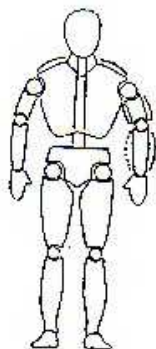
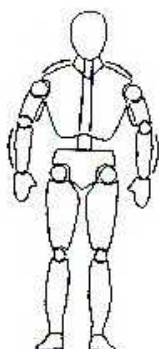
40-65 POINTS

PRACTICAL PROFILE:

- 1a,b]** *Hands* Unable to catch the water due to no hand/wrist flexion.
Arms Has no or very affected triceps and therefore has insufficient or lack of muscle control.
Trunk No trunk control and unstable in the water.
Legs No leg mobility and normally a severe leg drag.
Starts, Turns Water starts with no propulsion away from the wall in the start and turn. Will perform one asymmetrical stroke to gain the breast position. Assistance is required for the start. Feet start is permitted.
- 2a]** *Hands* Unable to catch the water due to inability of hand or wrist control.
Arms May have involuntary or minimal movements. Has a restriction in the full range of movement and limited coordination.
Trunk No trunk control therefore unstable in the water. May have involuntary movements.
Legs Legs in a flexed position and lack muscle control. May have involuntary movements.
Starts, Turns Water start with no propulsion away from the wall in both the start and turn. Assistance is required for the start. Will perform one asymmetrical stroke to gain the breast position. Feet start is permitted.
- 2b]** *Hands* Unable to catch the water due to lack of hand/wrist control.
Arms Has a restriction in the range of movement and/or limited coordination.
Trunk No trunk control and unstable in the water.
Legs Leg propulsion will possibly dominate.
Starts, Turns Water starts with no propulsion away from the wall in the start and turn. Assistance may be required for the start. Will perform one asymmetrical stroke to gain the breast position. Feet start is permitted.
- 3a]** *Hands* Catch may be possible but control of the wrist may not be possible.
Arms Has restriction in the shoulder function.
Trunk Limited trunk control and therefore unstable in the water.
Legs A severe leg drag.
Starts, Turns Water starts with no propulsion away from the wall in the start and turn. Assistance required. Feet start is permitted.
- 3b]** *Hands* In the case of multiple amputees and dysmelia no hands are present.
Arms Limbs are severely shortened but with not restriction.
Trunk Full trunk control is present.
Legs Nil to minimum present. Leg drag.
Starts, Turns Normally minimal push off possible for water starts and turns. Assistance at the start may be necessary. Dive starts are possible from a sitting position on the starting platform. Starting device is permitted.
- 3c]** *Hand* No movement is evident.
Arms No movement is evident
Trunk Trunk control
Legs Restriction in hips but a satisfactory propulsive kick is possible.
Starts, Turns Assistance required. Feet start or starting device is permitted.

DISABILITY PROFILE:

1.
 - a] Tetraplegia or polio comparable to a complete lesion below C6.
 - b] Tetraplegia comparable to a complete lesion below C7 with additional plexus paralysis or restriction in one arm.
2.
 - a] Very severe quadriplegia with limited function in range of movement of the upper limbs for propulsion.
 - b] Severe quadriplegia with spasticity and athetosis involving poor head and trunk control, limited co-ordination for propulsion in all four limbs.
3.
 - a] Severe musculoskeletal impairment with very poor shoulder function comparable tetraplegia below C6.
 - b] Severe dysmelia in all four limbs or amputation of all four limbs with very short stumps.
 - c] Severe arthrogryposis affecting all four limbs with severely restricted movement in the upper limbs.

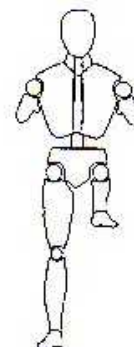
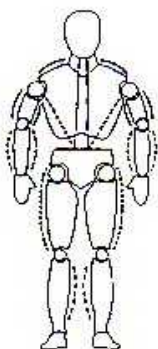
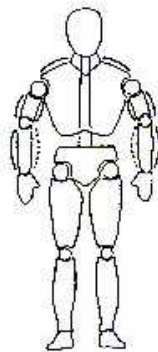


PRACTICAL PROFILE:

- 1a,b] Hands** Some weakness in holding the hand in a flexed position and has inability to catch the water satisfactorily. Wrist control is limited.
- Arms** Limited power of the arm cycle due to lack of muscles function.
- Trunk** Has minimal to no trunk control.
- Legs** Definite leg drag.
- Starts, Turn** Normally a water start with minimal push off with the hands is possible in both the start and turn. May require assistance for the start. Feet start is permitted.
- 2. Hands** Uncoordinated hands and therefore difficulty in catching the water satisfactorily. Wrist control is limited.
- Arms** Limited power of the arm cycle due to lack of coordinated movements. Restricted range of movement.
- Trunk** Has minimal to no trunk control. Involuntary movements are evident.
- Legs** Leg drag.
- Starts, Turn** Normally a water start with minimal push off possible in both the start and turn. May require assistance for the start. Feet start is permitted.
- 3a] Hands** Where the hand/s are present normal catch is possible.
- Arms** Normal cycle possible
- Trunk** Trunk control is present.
- Legs** If no restriction of leg foot must turn out in propulsive phase.
- Starts, Turns** Normally water start. Push off is possible at starts and turns. Swimmers may start in a sitting position from the starting block. Starting device is permitted.
- 3b] Hands** Some weakness in holding the hand in a flexed position and has inability to catch the water effectively. Wrist control is limited.
- Arms** Limited power of the arm cycle due to lack of muscles function.
- Trunk** Has minimal to no trunk control.
- Legs** Leg drag.
- Starts, Turn** Normally a water start with minimal push off with the hands is possible in both the start and turn. May require assistance for the start. Feet start is permitted.
- 3c] Hands** Is able to control the wrist and gain satisfactory power but has limited control of the fingers.
- Arms** Arm cycle may not be consistently fluent and due to lack of muscle functions power is not fully effective.
- Trunk** Nil to minimal trunk control.
- Legs** Leg drag.
- Starts, Turns** Normally water start and very limited or no push off possible at starts and turns. May require assistance for the start. Feet start is permitted.

DISABILITY PROFILE:

1. a] Tetraplegia or polio comparable to a complete lesion below C7.
 b] Some incomplete tetraplegia below C6 or comparable polio.
2. Moderate quadriplegia, poor trunk control, spasticity and athetosis and/or ataxia with moderate propulsion in all four limbs.
3. a] Severe dysmelia of three limbs.
 b] Severe muscular atrophy of both upper and lower limbs.
 c] Musculoskeletal impairment comparable to complete tetraplegia below C7.

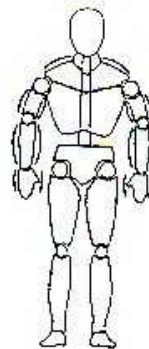
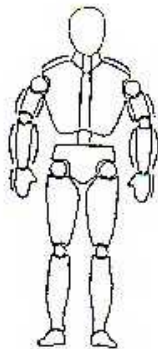


PRACTICAL PROFILE:

- 1a,b]** *Hands* Is able to control the wrist and gain power but does not have full control of the fingers.
Arms Arm cycle may not be consistently fluent and due to lack of muscle functions power is not fully effective.
Trunk Nil to minimal trunk control.
Legs A definite leg drag with hips remaining below the water line.
Starts, Turns Normally water start and very satisfactory push off with hand, possible at starts and turns. Feet start is permitted.
- 1c,d]** *Hands* Able to gain full power in the catch phase.
Arms Fully effective arm cycle.
Trunk No trunk control or trunk control due to surgical rods but allowing no flexibility for undulating movement.
Legs Hips slightly lower in the water, legs in the definite V shape in the water. Leg drag.
Other Balance may be effected due to hip contractures.
Starts, Turns Possibly a water start with push off made with the hand at both the start and turns. Feet start is permitted.
- 2.** *Hands* Affected to the degree the catch phase does not gain an effective catch.
Arms May not have fully controlled arm cycle.
Trunk Limited trunk control.
Legs Leg drag.
Starts, Turns Majority would be starting in the water with satisfactory push off with hand from wall at both the start and turns. Feet start is permitted.
- 3a]** *Hands* Able to gain power in the catch phase.
Arms May not have a fully effective arm cycle due to lack of muscle function.
Trunk Limited trunk control.
Legs Definite leg drag with hips remaining below the water surface.
Starts, Turns Possibly a water start with push off made with the hand at both the start and turns. Starting on the starting platform, in a sitting position, is also possible. Feet start is permitted.
- 3b]** *Hands* Hands may not be present. If present able to gain full power.
Arms Full arm cycle although limbs may be shortened, therefore not gaining full propulsion.
Trunk Full trunk control.
Legs Where leg/s are present a satisfactory propulsive kick movement is possible.
Other There will be either arm or leg propulsion but both is not normally possible.
Starts, Turns Water start is able to gain some propulsion away from the wall in both the start and turns. Dive start is possible.
- 3c]** *Hands* Catch phase is possible with fair power.
Arms Moderate restriction in the arm cycle.
Trunk Near to full trunk control.
Legs: Limited propulsive kick movement is possible.
Other There will be either arm or leg propulsion but both is not normally possible.
Starts, Turns Dive start is possible. Water start and turns are able to gain some propulsion away from the wall.

DISABILITY PROFILE:

1.
 - a] Tetraplegia or polio comparable to a complete lesion below C8, with good finger extension.
 - b] Incomplete tetraplegia below C7 or comparable polio.
 - c] Complete paraplegia or polio comparable to below T1-T5.
 - d] Complete paraplegia T1–T8 with surgical rods from T4/6 which includes the lumbar spine and/or severe contractures in the hips which results in balance being affected.
2. Severe diplegia with involvement of the trunk limited propulsion in shoulders and elbows.
3.
 - a] Musculoskeletal impairment comparable to complete tetraplegia below C8.
 - b] Moderate dysmelia in three limbs.
 - c] Arthrogryposis affecting all four limbs with moderate to fair propulsion from the upper or lower limbs with a severe restricted movement in the upper or lower limbs.

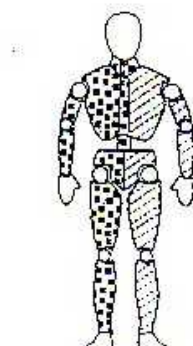
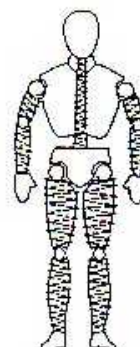
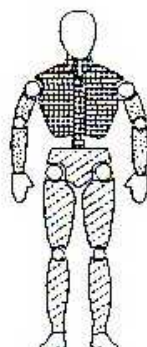
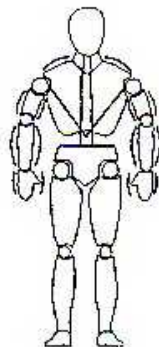


PRACTICAL PROFILE:

- 1a,c] **Hands** Able to gain full power in the catch phase.
Arms Effective arm cycle.
Trunk Limited trunk control. Loss of lower function but some upper trunk is present.
Legs Hips slightly lower in the water, legs in the definite V shape in the water. Leg drag.
Starts, Turns Possibly a water start with push off made with the hand at both the start and turns. Starting on the starting platform, in a sitting position, is also possible.
- 1b] **Hands** Able to gain full power in catch phase
Arms Effective arm cycle
Trunk Trunk control with surgical rods not allowing flexibility. Not able to perform undulating movement.
Legs Hips slightly low in the water, legs wavering.
Others Balance may be affected due to hip contractures.
Starts, Turns Possibly will start in the water, while others are able to start from the starting platform in a sitting position. An effective hand push off is possible for water starts and turns.
- 2a] **Hands** Affected to the degree the catch phase does not gain full power.
Arms May not have fully controlled arm cycle. Restriction in shoulder evident.
Trunk Limited trunk control.
Legs Leg drag.
Starts, Turns Majority would be starting in the water with satisfactory push off with the hand from the wall at both the start and turns.
- 2b] **Hands** Satisfactory catch in one hand with minimal to no catch in the other.
Arms Satisfactory control of one arm. Swimmer may use only the less affected side resulting in a better coordinated one arm stroke. Hemi arm is not able to be kept streamlined into the body.
Trunk Restricted trunk control due to tone.
Legs Leg drag.
Starts, Turns May dive with assistance, otherwise water start with minimal push off with one leg at both the start and turns.
- 2c] **Hands** Affected to the degree the catch phase is satisfactory only. It is evident the 'feel' of the water is not present.
Arms Satisfactory arm cycle.
Trunk Limited trunk control.
Legs Leg drag.
Starts, Turns Majority would be starting in the water with minimal push off from wall at both the start and turns.
- 3a] **Hands** Able to gain full power in the catch phase.
Arms Effective arm cycle.
Trunk Limited trunk control.
Legs Hips slightly below the water surface and leg drag.
Starts, Turns Possibly a water start with push off made with the hand at both the start and turns. Starting on the starting platform, in a sitting position, is also possible.
- 3b] **Hands** Catch phase is possible with fair power.
Arms Moderate restriction in the arm cycle but able to gain a satisfactory cycle.
Trunk Near to full trunk control.
Legs Some kick is evident gaining fair propulsion.
Starts, Turns Dive start is possible. Water start and turns are able to gain some propulsion away from the wall.

DISABILITY PROFILE:

1.
 - a] Complete paraplegia or polio comparable to below T6-T10.
 - b] Complete paraplegia T9-L1 with surgical rods from T4/6 which includes the lumbar spine and/or severe hip contractures resulting in affecting balance.
 - c] Incomplete tetraplegia below C8 with reasonable trunk function or comparable polio.
2.
 - a] Severe diplegia with fair trunk control and fair propulsion in shoulders and elbows
 - b] Severe hemiplegia
 - c] Severe to moderate athetosis/ataxia and spasticity.
3.
 - a] Musculoskeletal impairment comparable to incomplete tetraplegia below C8.
 - b] Arthrogryposis affecting all four limbs with moderate to fair propulsion in the upper and lower limbs.

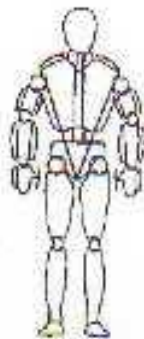


PRACTICAL PROFILE:

- 1a] **Hands** Is able to maintain a full catch phase of the stroke.
Arms Is able to perform a full arm cycle gaining full power.
Trunk Loss of lower function but some upper trunk is present.
Legs Hips slightly lower in the water, legs wavering and lower in the water but not in the distinct V shape.
Starts, Turns Possibly will start in the water while others are able to start from the starting platform in a sitting position. An effective hand push off is possible for water starts and turns.
- 1b] **Hands** Has good hands with full control to enable catch phase.
Arms Good arm to maintain full control and power in the stroke phase.
Trunk Trunk control due to surgical rods is restricted. Not able to perform undulating movement.
Legs Legs do not waiver during the stroke.
Other Balance may be effected due hip contractures
Start, Turn Some will start in the water while others are able to start from the starting platform in a sitting position. Hand push off in water start and turns are effective.
- 2a] **Hands** Catch is satisfactory but it is noticeable that the control of the catch is lacking.
Arms Arm cycle is restricted in the range but able to gain a satisfactory power.
Trunk Satisfactory control of the full trunk.
Legs Leg drag.
Starts, Turns Possibly will start in the water while others are able to start from the starting platform. Assistance will be required. Satisfactory push off is possible in both a water start and turns.
- 2b] **Hands** One hand can maintain a satisfactory catch phase but there is evidence of moderate involvement.
Arms Arm cycle is restricted in the range. A one arm stroke is more effective showing less restriction. Hemi arm is not able to be controlled and streamlined next to the body
Trunk Satisfactory trunk control.
Legs Able to perform a kick gaining some propulsion particularly on the better side.
Starts, Turns Possibly will start in the water while others are able to start from the starting platform. Assistance will be required. Satisfactory push off is possible from a water start and also for turns.
- 2c] **Hands** Catch is minimally controlled.
Arms Arm cycle is restricted but able to gain satisfactory power.
Trunk Satisfactory control of the full trunk.
Legs Able to perform a kick gaining some propulsion.
Starts, Turns Possibly will start in the water while others are able to start from the starting platform. Assistance may be required. Satisfactory push off is possible in a turn.
- 3a] **Hands** One hand has full control to enable the catch phase.
Arms One arm is able to maintain full control and power.
Trunk Loss of balance in trunk.
Legs Propulsion of one leg is possible.
Starts, Turns Standing dive is possible. Satisfactory power is gained from one leg in water starts and turns.
- 3b] **Hands** Full control to enable catch phase.
Arms Full arm cycle.
Trunk Minimum balance loss.
Legs Hips in line with the water surface and leg drag.
Starts, Turns A sitting dive or water start is acceptable. Hand push off at starts and turns is satisfactory.
- 4a] **Other** Includes some achondroplasia with additional movement restriction compared to those in SB6
- 4c] **Hands** Satisfactory catch phase.
Arms Able to perform a satisfactory arm cycle gaining power.
Trunk Trunk control.
Legs Is able to perform a show intent to kick with limited propulsion.
Starts, Turns Able to start from the starting platform. Able to execute a reasonable push off at turns.
Other Either arm or leg movement will dominate the stroke cycle but not both.

DISABILITY PROFILE:

1.
 - a] Complete paraplegia or polio comparable to below T11-L1 with no leg function useful for swimming.
 - b] Complete paraplegia L2-L3 with surgical rods from T4/6 which includes the lumbar spine and/or severe hip contractures resulting in affecting balance.
2.
 - a] Moderate diplegia with fair trunk control and fair to good propulsion in shoulders and elbows.
 - b] Severe to moderate hemiplegia
 - c] Severe to moderate athetosis and/or ataxia.
3.
 - a] Above elbow and above knee amputation of the same side.
 - b] Double above knee amputation, stumps shorter than 1/2.
4.
 - a] Achondroplasia: not more than 130cm for women and 137cm for men with additional handicap that causes propulsion problems.
 - b] Above knee amputation plus severely functionally restricted shoulder of the same side.
 - c] Dysmelia with shortened arms and additional dysfunctions of legs.

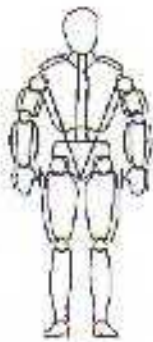


PRACTICAL PROFILE:

- 1a] **Hands** Has good hands with full control to enable the catch phase.
Arms Good arms to maintain full control and power in the stroke phase.
Trunk Lower trunk control loss.
Legs Hips level with the water line, legs able to be kept together in a streamline position, no movement of the legs. Leg drag.
Starts, Turns Some will start in the water while others are able to start from the starting platform in a sitting position. Hand push off in water starts and turns are effective.
- 2a] **Hands** Not able to gain the full control in the catch phase.
Arms Some involvement is evident. Arm cycle is performed with minimal restriction and able to gain power.
Trunk Minimal loss of trunk control.
Legs Leg drag or show intent to kick for balance.
Starts, Turns Able to start from a standing position on the starting platform. Assistance may be required. A satisfactory push off is possible in water starts and turns.
- 2b] **Hands** One hand can maintain a correct catch phase but affected hand gains limited catch.
Arms Arm cycle is restricted in the range but is able to perform a satisfactory to good stroke, only when the less affected limb is used. Hemi arm is able to be maintained in a streamlined position if only one arm is used.
Trunk Satisfactory trunk control.
Legs A satisfactory kick is possible.
Starts, Turns Possibly will start in the water while others are able to start from the starting platform. Assistance will be required. Satisfactory push off is possible from a water start and also for turns.
- 2c] **Hands** Catch is minimally controlled but satisfactory power gained.
Arms Arm cycle is restricted but able to gain satisfactory power.
Trunk Satisfactory control of the full trunk.
Legs Alignment almost symmetrical but some movements are associated with the trunk. Kick able to gain satisfactory power.
Starts, Turns Able to start from the starting platform. Assistance may be required. Satisfactory push off is possible in a turn.
3. **Hands** Has good hands with full control to enable the catch phase.
Arms Has good arms to maintain full control and power in the stroke phase.
Trunk Minimal balance loss.
Legs Hips level with the water surface. Leg drag. May show intent to kick for balance only.
Starts, Turns A sitting dive or water start is acceptable. Hand push off at starts and turns is satisfactory.
- 4a] **Hands** Correct catch phase is maintained with satisfactory power gained.
Arms Able to perform a satisfactory arm cycle gain power.
Trunk Trunk control.
Legs Minimal hip restriction when performing the kick.
Starts, Turns Able to start from the starting platform. Able to execute a reasonable push off at turns.
- 4b] **Hands** Catch is minimally involved.
Arms Arm cycle is restricted but is able gain satisfactory power.
Trunk Minimal loss of trunk control.
Legs Satisfactory propulsive kick with one leg is possible.
Starts, Turns Standing dive is possible. Satisfactory power is gained from only one leg in water starts and turns.
- 4c] **Hands** Only one hand has full control to enable the catch phase.
Arms Only one arm is able to maintain full control and power in the stroke phase.
Trunk Minimal loss of balance in the trunk.
Legs Propulsion of one leg is effective.
Starts, Turns Standing dive is possible. Satisfactory power is gained from only one leg in water starts and turns.

DISABILITY PROFILE:

1. Complete paraplegia or polio comparable to below L2-L3.
2.
 - a] Moderate diplegia with some minimal upper body and trunk involvement.
 - b] Moderate hemiplegia. [see practical profile]
 - c] Moderate athetosis and/or ataxia.
3. Double above knee amputation, stumps longer than 1/2.
4.
 - a] Achondroplasia: not more than 130cm for women and 137cm for men.
 - b] Dysmelia with shortened arms [2/3 of normal] and above knee amputation.
 - c] One paralysed upper limb and severely restricted function of the leg of the same side.



PRACTICAL PROFILE:

1. **Hands** Catch phase is controlled gaining full power.
Arms Able to maintain a full controlled arm cycle.
Trunk Minimal trunk control loss.
Legs Hips level with the water line, legs able to be streamlined. Is able to show intent to kick for balance rather than propulsion.
Starts, Turns Standing start but not with full power off the starting platform. Not able to gain full power from the feet from the push off at water starts and turns.

- 2a] **Hands** Catch phase is controlled gaining full power. Minimal involvement is evident.
Arms Able to maintain full controlled arm cycle. Minimal involvement is evident
Trunk Minimal loss of trunk control.
Legs Minimal use of legs. Leg drag or show intent to kick for balance.
Starts, Turns Standing start but may need assistance. Not able to gain full propulsion from the feet from the push off at turns.

- 2b] **Hands** One hand to gain full control to enable the catch phase while the other hand gains minimal power.
Arms Minimal involvement is evident in the better arm. The arm cycle is able to be performed but one arm is not able to perform the full cycle with satisfactory power gained.
Trunk Body balance is affected minimally.
Legs Leg movement is possible with good propulsion gained.
Starts, Turns Able to start from the standing position on the starting platform. Assistance may be required. A satisfactory push off is possible in water starts and turns.

- 2c] **Hands** Catch phase is controlled to gain power. Minimum involvement is evident.
Arms Able to maintain a controlled arm cycle. Minimum involvement is evident.
Trunk Minimal loss of trunk control.
Legs Satisfactory propulsion is possible.
Starts, Turns Standing start but no able to gain full power off the starting platform. Not able to gain full propulsion from the legs from the push off from the wall at turns.

- 3a] **Hands** No catch is possible.
Arms Limited cycle to no cycle possible.
Trunk Full control is present.
Legs Full propulsive kick.
Starts, Turns Standing start with full power off the starting platform. Full power from push off at turns.

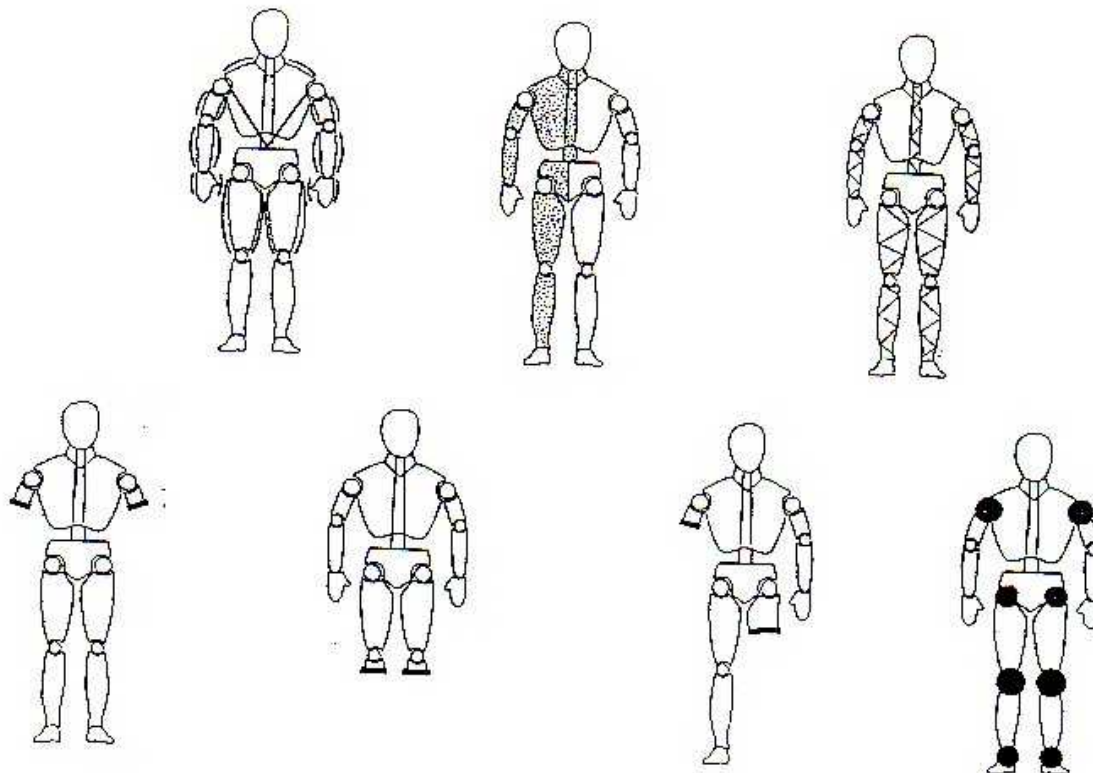
- 3b] **Hands** Catch phase is controlled and able to gain full power.
Arms Able to maintain a full controlled arm cycle.
Trunk Full control is present.
Legs Kick is possible resulting in minimal propulsion. May show intent to kick or leg drag.
Starts, Turns Kneeling, sitting or water start is acceptable. Minimal push off with the legs from the wall is possible for turns.

- 3c] **Hands** One hand is able to gain full control and power.
Arms One arm able to maintain full control and power in the stroke phase.
Trunk Minimal loss of balance.
Legs Propulsive kick is possible with leg.
Starts, Turns Standing dive is possible. Satisfactory power is gained from one leg in water starts and turns.

4. **Hands** Catch phase is controlled and able to gain full power.
Arms Able to maintain full controlled arm cycle.
Trunk Full trunk control.
Legs Limited kick is possible. Leg drag or show intent to kick for balance.
Starts, Turns Standing start may be possible but minimal power gained from the starting platform. A sit start or water start is acceptable. Limited power from the legs at turns.

DISABILITY PROFILE:

1. Complete paraplegia or polio comparable to below L4-L5.
2.
 - a] Minimal diplegia with minimal trunk involvement.
 - b] Moderate hemiplegia. [see practical profile]
 - c] Minimal spasticity in four limbs.
3.
 - a] Double above elbow amputation.
 - b] Double below knee amputation, stumps shorter than 1/2.
 - c] Above elbow amputation and above knee amputation on opposite sides.
4. Severe joint restrictions in the lower limbs.

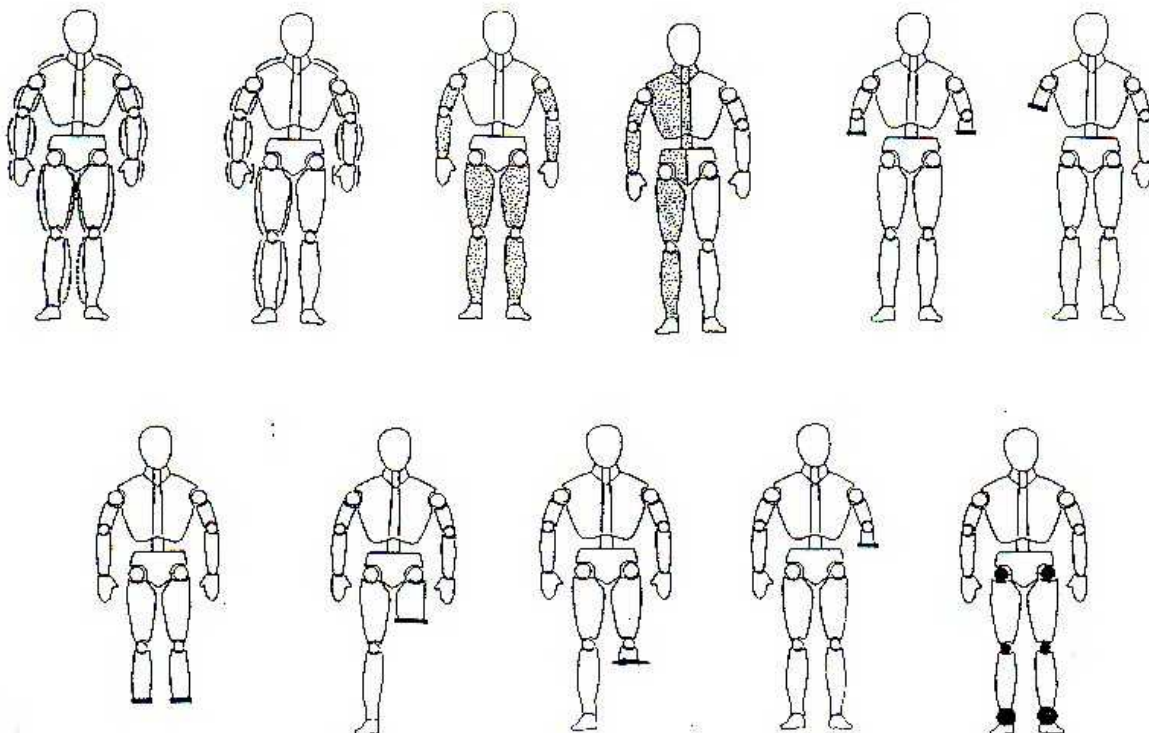


PRACTICAL PROFILE:

- 1a] **Hands** Catch phase is controlled with full power.
Arms Able to maintain a full controlled arm cycle.
Trunk Minimal trunk control loss.
Legs Propulsion is satisfactory.
Starts, Turns Standing start with satisfactory power off the starting platform. Not able to gain full power from the legs from the push off at water starts and turns.
- 1b] **Hands** Able to catch the water gaining full power.
Arms Full controlled arm cycle gaining full power.
Trunk Trunk control.
Legs Propulsive kick is possible with one leg.
Starts, Turns Standing start possible with power from one leg off the starting platform. Full power from one leg push off at turns possible.
- 2a] **Hands** Able to catch the water gaining near full power.
Arms Controlled arm cycle gaining near full power. Slight involvement is evident.
Trunk Trunk control with only slight involvement.
Legs Propulsion kick is possible with minimal involvement.
Starts, Turns Standing start possible with slight power loss off the starting platform. Slight power loss from legs at turn.
- 2b] **Hands** Catch phase is controlled to gain power. Minimum involvement is evident on the affected side.
Arms Able to maintain a controlled arm cycle. Minimum involvement is evident on the affected side.
Trunk Minimal loss of trunk control.
Legs Propulsion is possible with some power loss on the affected side.
Starts, Turns Standing start but not able to gain full power off the starting platform. Not able to gain full propulsion from one leg from the push off from the wall at turns.
- 3a] **Hands** No catch phase possible.
Arms Able to maintain a full controlled arm cycle, gaining satisfactory power.
Trunk Full trunk control.
Legs Full propulsive kick.
Starts, Turns Standing start with full power off the starting platform. Full power from push off at turns.
- 3b,c,d] **Hands** Catch phase of one hand is controlled and able to gain full power.
Arms Able to maintain a full controlled arm cycle gaining full power with one arm.
Trunk Some balance loss of trunk.
Legs Full propulsive kick.
Starts, Turns Standing start gaining full power off the starting platform. Able to gain full propulsion from the legs at the turns. Streamlining is affected.
- 3e] **Hands** Able to catch the water gaining full power.
Arms Able to maintain a full controlled arm cycle.
Trunk Full trunk control with minimal balance loss
Legs Kick is possible resulting in minimal propulsion loss.
Starts, Turns Kneeling, sitting or water start is acceptable. Minimal push off with the legs from the wall is possible for turns.
- 3f,g,h] **Hands** Able to catch the water gaining full power.
Arms Full controlled arm cycle gaining full power.
Trunks Full trunk control with minimal balance loss.
Legs Satisfactory propulsive kick with one leg is possible
Starts, Turns Standing start with full power from one leg only off the starting platform. Full power from one leg only from push off at turns.
4. **Hands** Able to catch the water gaining full power.
Arms Full controlled arm cycle gaining power.
Trunk Full trunk control.
Legs Kick is possible with satisfactory propulsion.
Starts, Turns Standing start with power loss off the starting platform. Power loss from push off at turns.

DISABILITY PROFILE:

1.
 - a] Walking paraplegia with minimal involvement in lower limbs.
 - b] Polio with one non functional leg.
2.
 - a] Slight overall functional coordination problems.
 - b] Slight evidence of hemiplegia.
3.
 - a] Double below elbow amputation.
 - b] Single thru elbow amputation.
 - c] Single above elbow amputation or comparable functionally complete brachial plexus lesion.
 - d] Single below elbow amputation, stump less than 1/4.
 - e] Double below knee amputation, stumps longer than 1/2.
 - f] Single above knee amputation.
 - g] Single thru knee amputation.
 - h] Single below knee amputation, stump less than 1/4.
4. Partial joint restriction in the lower limbs, one side more affected.



PRACTICAL PROFILE:

1. **Hands** Able to catch the water gaining full power.
 Arms Full controlled arm cycle gaining full power.
 Trunk Full trunk control.
 Legs Propulsive kick is possible with minimal power loss.
 Starts, Turns Standing start possible with slight power loss off the starting platform. Slight power loss from legs at the turns.

2. **Hands** Control of catch phase and power is gained. Minimal involvement is evident.
 Arms Able to maintain a full controlled arm cycle.
 Trunk Full trunk control.
 Legs Propulsive kick with minimal involvement in the feet.
 Starts, Turns Minimal loss of power at the start and turns.

- 3a,c] **Hands** Control of catch phase and full power is gained.
 Arms Able to maintain a full controlled arm cycle.
 Trunk Full trunk control.
 Legs Full propulsive kick in one leg and minimal involvement in other.
 Starts, Turns Minimal loss of power at the start and turns.

- 3b,d] **Hands** Able to catch the water gaining full power in one hand only.
 Arms Full controlled arm cycle gaining full power.
 Trunk Full trunk control.
 Legs Full propulsive kick.
 Starts, Turns Standing start with full power off the starting platform. Full power from push off at turns. Streamlining is affected.

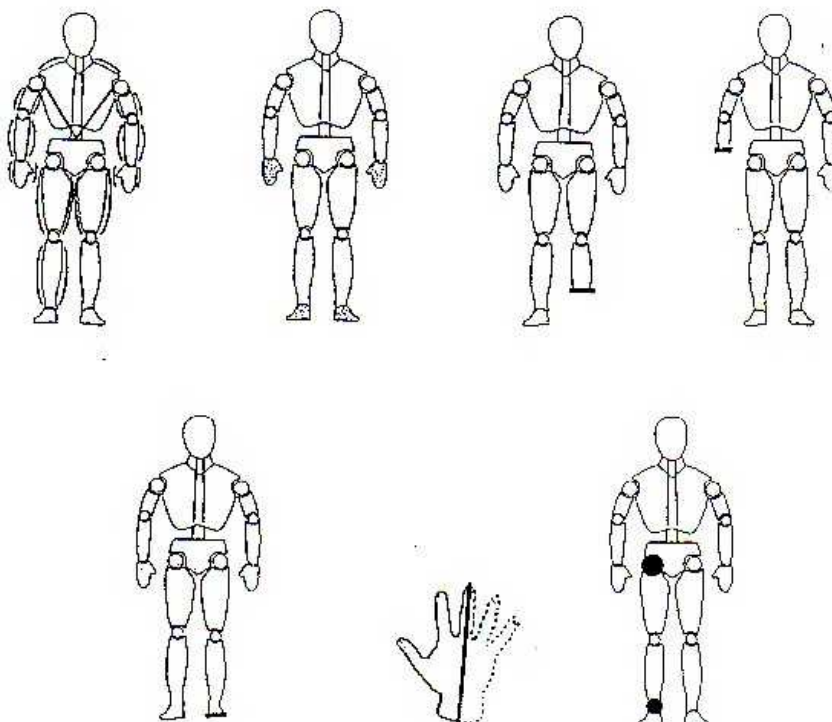
- 4a] **Hands** Able to catch the water gaining full power in one hand only with some power being gained with the other.
 Arms Full controlled arm cycle with one arm with some restriction in the other, gaining good power.
 Trunk Full trunk control.
 Legs Full propulsive kick.
 Starts, Turns Standing start with full power off the starting platform. Full power from push off at turns.

- 4b,c] **Hands** Able to catch the water gaining full power.
 Arms Full control arm cycle gaining full power.
 Trunk Full trunk control.
 Legs Good propulsive kick is possible with slight restriction in one leg.
 Starts, Turns Full power gained from one leg at start and turns.

- 4d] **Hands** Able to catch the water gaining full power.
 Arms Full controlled arm cycle gaining full power.
 Trunk Full trunk control.
 Legs Satisfactory to good propulsive kick is possible.
 Starts, Turns Loss of some power at start and turn.

DISABILITY PROFILE:

1. Polio minimally affected lower limb and cauda-equina syndrome S1/2.
2. Clear evidence of slight spasticity and/or ataxia in specific tests.
3.
 - a] Single below knee amputation, stump longer than 1/4
 - b] Single below elbow amputation, longer than 1/4
 - c] Foot amputation.
 - d] Hand amputation, less than 1/3.
4.
 - a] Incomplete Erb-palsy or brachial plexus lesion.
 - b] Perthes disease with restriction in the hip mobility.
 - c] Severe hip restriction, combined with further dysfunctions of the leg.
 - d] Ankylosis of both ankle joints, combined with minimal leg weakness.



SECTION FOUR FORMS

This section contains the following forms :

- Classification Form
- Consent Form
- Declaration Form for Medical Conditions



W D
Status: N R P PP

SWIMMING FUNCTIONAL CLASSIFICATION TESTING SHEET

(Please print all details in English)

FAMILY NAME: _____

GIVEN NAME: _____

DATE OF BIRTH: _____ SEX: MALE/FEMALE

CITY/STATE/COUNTRY: _____

Diagnosis + Associated Diagnosis: _____

_____ Since _____

Progressive Yes/No Seizures: Yes/No Asthma Yes/No

Ability to Walk: Yes/No Crutches/Aids: Yes/No Wheelchair: Yes/No

Accredited Coach/Trainer: Yes/No

How long involved in Competitive Swimming: _____

No. of Training Sessions per week: _____

Length of each Training Sessions: _____

Cross Training: YES/NO Type: _____

No. of Competitions within the past 12 months: _____

Testing Place, Date: _____ CLASSES: S SB SM

MEDICAL TESTER'S SIGNATURE _____

TECHNICAL TESTER'S SIGNATURE _____

SWIMMERS SIGNATURE _____

EXCEPTIONS: To be Observed During Competition: _____

Assistance Required for Start:

Support Staff/Volunteer

Assistance Required to Enter and Exit the Water:

Yes/No

Start: _____

Freestyle: _____

Backstroke: _____

Butterfly: _____

Breaststroke: _____

Comments: _____

BENCH TEST	Coordination Muscle Test		Contracture ROM	
	RIGHT	LEFT	RIGHT	LEFT

UPPER LIMBS

Shoulder	S	SB	Flexion				
	S	X	Extension				
	X	X	Abduction				
	S	SB	Adduction				
	S	X	Ext. Rot				
	S	SB	Int. Rot				
Elbow	S	SB	Flexion				
	S	SB	Extension				
	S	SB	Pronation				
Wrist	S	SB	Flexion				
	S	X	Extension				
	X	SB	Uln. Abn				
Finger	S	SB	Flexion				
	S	SB	Extension				
	S	SB	Adduction				
TOTAL S							
TOTAL SB							

Dive Start and Push-off : S and SB Strokes

Start in water with assistance	0 points
Start in water without assistance	1-2 points
Falls into the water	1-2 points
Poor functional dive with one leg	3-4 points
Poor functional dive with both legs	5-6 points
Good functional dive with one leg	7-8 points
Good functional dive with both legs	9-10 points
Dive with one non-functional arm (<i>dragging or above elbow amp</i>)	9 points
Dive with non-functional arms (<i>dragging or above elbow amp</i>)	7 points
No push-off with legs possible	0 points
Push-off only with any single joint	1-2 points
Poor functional push-off with one leg	3-4 points
Poor functional push-off with both legs	5-6 points
Good functional push-off with one leg	7-8 points
Good functional push-off with both legs	9-10 points
Turning without arms (<i>dragging or above elbow amp</i>)	7 points
Turning with one arm (<i>dragging or above elbow amp</i>)	9 points

BODY HEIGHT:.....cms

HEAD TO BUTTOCK:.....cms

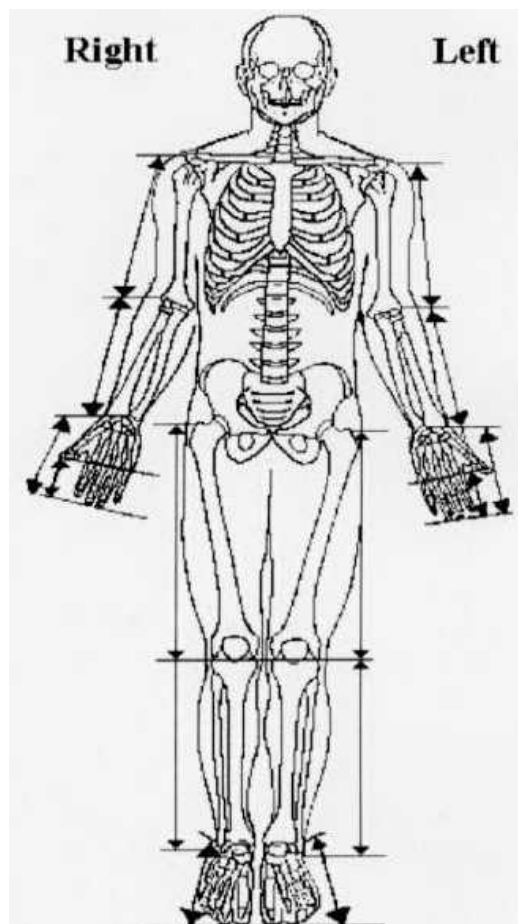
TRUNK

Trunk	S	SB	Flx. Upper				
	S	SB	Flx. Lower				
	S	SB	Ext Upper				
	S	SB	Ext. Lower				
	S	X	Rotation				
TOTAL S							
TOTAL SB							

LOWER LIMBS

Hip	S	SB	Flexion				
	S	SB	Extension				
	X	SB	Abduction				
	S	SB	Adduction				
	X	SB	Ext. Rot				
	S	SB	Int. Rot				
Knee	S	SB	Flexion				
	S	SB	Extension				
Ankle	S	SB	Dorsiflex.				
	S	SB	Plantaflex.				
	S	SB	Pronation				
	S	SB	Supination				
TOTAL S							
TOTAL SB							

AMPUTATION



Highlight amputated limb/s (with highlighter)

and draw in particular features.

Fill in the measurement in cms. of the
amputated limb

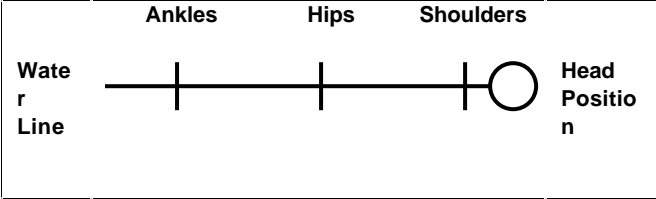
Lower limb length difference in cm:

SHOULDER TEST			Right	Left	Dynamic Test	
Scapula	Muscle Test	Retraction			Right	Left
		Elevation				

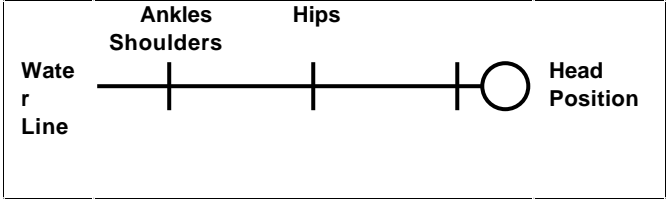
FUNCTIONAL STATUS WATER TEST

BODY POSITION

FACE FLOAT



BACK FLOAT



WATER TEST S – FUNCTIONAL

UPPER LIMBS			
TOTAL ARMS FUNCTIONAL			
RIGHT (65)		LEFT (65)	
B	W	B	W

WATER TEST SB - FUNCTIONAL

UPPER LIMBS			
TOTAL ARMS FUNCTIONAL			
RIGHT(55)		LEFT (55)	
B	W	B	W

TRUNK

TOTAL ARMS FUNCTIONAL			
RIGHT (25)		LEFT (25)	
B	W	B	W

TRUNK

TOTAL ARMS FUNCTIONAL			
RIGHT (20)		LEFT (20)	
B	W	B	W

LOWER LIMBS

TOTAL ARMS FUNCTIONAL			
RIGHT (50)		LEFT (50)	
B	W	B	W

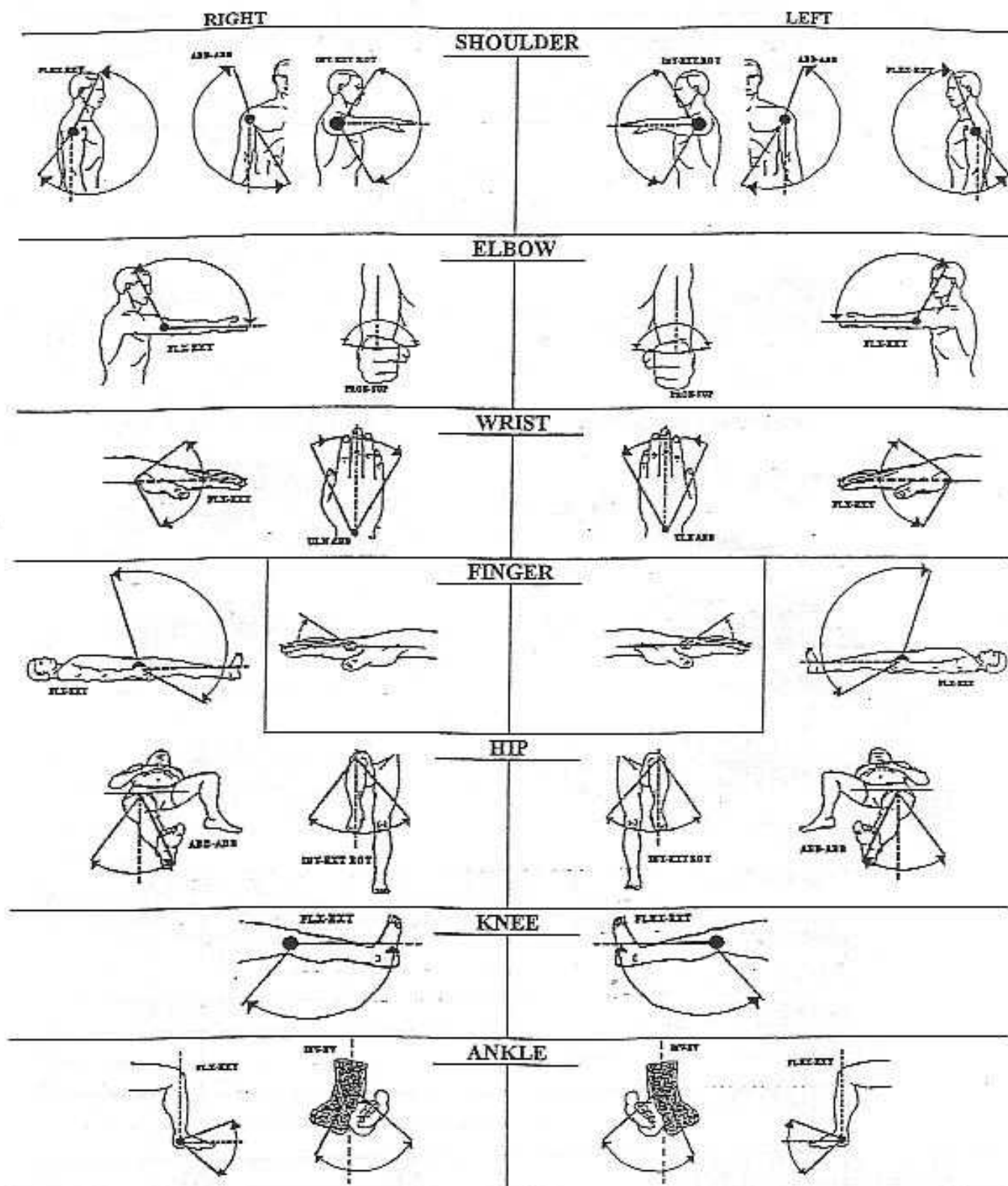
LOWER LIMBS

TOTAL ARMS FUNCTIONAL			
RIGHT (60)		LEFT (60)	
B	W	B	W

POINTS SCORE	S-STROKE		SB-STROKE	
	BENCH	WATER	BENCH	WATER
UPPER LIMBS				
TRUNK				
LOWER LIMBS				
START				
TURN				
TOTAL				

CLASSES	S	SB	SM
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RANGE OF MOVEMENTS



Points System:

- 0 No joint mobility
- 1 Slight movement completely unfunctional
- 2 25% of the FROMS
- 3 50% of the FROMS
- 4 75% of the FROMS
- 5 Functional Range of Movement for Swimming (FROMS)

Fill in the start and the end positions of each movement affected and their corresponding degrees in numbers.
Mark clearly with a zero (0) if not movement is present.

Highlight the range of movement that is active



CONSENT FOR FCS CLASSIFICATION

Explanation:

For a swimmer to be eligible to compete in IPC Swimming competitions the swimmer must be classified by authorised IPC Swimming classifiers.

Failure to cooperate with the classifiers or failure to complete a classification will lead to ineligibility to compete in the competition sanctioned by the IPC Swimming Committee.

If the swimmer finds their ability to cooperate with the IPC Swimming classifiers limited by pain, the swimmer must agree to a full classification test regardless of that pain. The swimmer agrees to indemnify the classifiers from any pain and suffering caused by the testing.

The following is an agreement by the swimmer to undergo a functional classification test, both medical [bench] and water test.

I.....wish to be classified for the IPC Swimming competition.

[PLEASE PRINT FULL NAME]

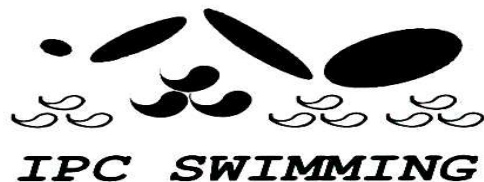
I understand that the IPC Swimming classification process includes a bench [medical] test, a water [swim] test and observation during competition. I understand that to be classified I must be willing to take part in all components of the classification process and cooperate fully with the classifiers.

I understand that to perform the bench [medical] test, the IPC Swimming classifiers must examine all movements and muscle groups. I agree to undertake these tests, and I agree that the classifiers are indemnified from any pain and suffering I may experience in the course of the test.

Signature of Swimmer:.....

Witness Signature of guardian/manager/coach:.....

Date:.....



DECLARATION OF MEDICAL CONDITIONS THAT MAY REQUIRE EMERGENCY PROCEDURES

[please print all information and complete in English]

Explanation:

For a swimmer to be eligible to compete in an IPC Swimming competition all associated medical conditions must be declared.

The swimmer's declaration should include:

- 1 the condition ;
- 2 the management plan for the condition.

The declaration is made in an attempt to ensure that adequate safety procedures and protocols are observed for medical conditions, to ensure the safety of the swimmer, and manage, the possible impact on other swimmers in the competition.

This form has been introduced as a result of previous incidents on pool deck, which could have been avoided with proper notification and the necessary action plan in place. To try and ensure that this type of incident does not occur in future, the declaration form has been designed. All swimmers with associated medical conditions, which may require specific and immediate onsite management, must complete this form.

These conditions include but are not limited to asthma, seizures, epilepsy, diabetes, low blood pressure, cardiac abnormalities and a tendency to hyperventilate.

Failure to declare a known existing condition and outline the necessary management will result in the swimmer being deemed ineligible to compete in the competition, which a condition results in performance of a rescue.

If a condition becomes evident for the first time during competition and is diagnosed at the time [e.g. dehydration], the swimmer will still be eligible to compete so long as the swimmer observes the recommended management for the condition.

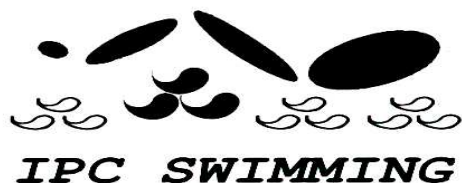
The declaration form should be completed by the swimmer and their personal or team physician. Ensure that the competitor has stated all known medical conditions that may require onsite management and include the current management protocol.

The content of this form is confidential. This form is required to ensure that the personnel responsible for safety on pooldeck are alerted to swimmers who may require assistance. This information is filed with the individuals classification sheets and is accessible to authorised IPC Swimming classifiers only.

If the condition necessitates taking medication that requires the completion of a TUE a copy of this must also be supplied to IPC Swimming.

The preference is to have the athlete's personal physician complete the declaration form.

All Swimmers [classes S1 through S14] must complete this form.



DECLARATION OF MEDICAL CONDITIONS THAT MAY REQUIRE EMERGENCY MEASURES

[please print all information and complete in English]

Iwish to compete in the IPC Swimming competition.
[PLEASE PRINT FULL NAME]

I understand that IPC Swimming requires me to state any known medical conditions that may compromise my safety in the water. I understand that I must state the current management for my condition[s]

(please print n/a if there are no associated medical conditions)

I suffer from _____

The current management for the above is _____

I understand that if I fail to state any known medical conditions and if this condition results in having to perform a rescue, I will automatically be deemed ineligible for the present competition. I also understand that if a condition becomes evident for the first time during competition and is diagnosed at the time e.g. dehydration, I will still be eligible to compete as long as I observe the recommended management for the condition.

SIGNATURE OF SWIMMER : _____

SIGNATURE of PARENT/GUARDIAN/WARD [UNDER AGE 18] : _____

SIGNATURE OF PERSONAL DOCTOR/TEAM PHYSICIAN _____

SIGNATURE OF WITNESS _____

DATE : _____

TUE APPLICATION COPY ATTACHED <input type="checkbox"/>

This form is to be resubmitted if there are changes to the condition and medication and/or management.