NOTES ON MEDICAL CONDITIONS AND DISABILITIES

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INTRODUCTION

NEUROLOGICAL CONDITIONS

1. Cerebral Palsy
2. Spina Bifida
3. Muscular Dystrophy
4. Spinal Cord Injuries
5. Multiple Sclerosis
6. Stroke
7. Epilepsy
8. Head Injuries
9. Poliomyelitis
10. Sensory Disorders
    a. Visual impairment
    b. Hearing impairment
    c. Other Sensory processing disorders such as tactile

ORTHOPAEDIC CONDITIONS

1. Arthritis
2. Absence or Deformity of Limbs
3. Musculo-skeletal conditions

LEARNING DISABILITIES

1. Down's Syndrome
2. Autistic Spectrum
3. Behavioural Problems
4. Other Syndromes

DEVELOPMENTAL DISORDERS

PSYCHIATRIC DISORDERS

COMMUNICABLE DISEASES

1. Hepatitis B
2. AIDS
3. Immunization

GLOSSARY

INTRODUCTION

1. **Purpose** - The purpose of these notes is to provide basic information on some of the most common conditions seen in Member Groups. In order to develop rewarding and enjoyable riding sessions, the coach should discuss the aims of riding with the rider/driver, parent or carer, taking in to consideration the ability and problems of the rider or driver. If appropriate, the specific needs of the rider should be discussed with the physiotherapist, medical practitioner, teacher or other relevant persons.

2. **Medical Condition –**

There are some conditions where Riding/Vaulting/Driving is contra-indicated. These are presented separately.

Consideration also needs to be given to the presence of certain pieces of medical equipment. External supports may be supplied to control joint positioning, and may or may not be appropriate when riding. Some riders may have a PEG in place – see glossary and seek professional advice.

Whatever the acceptable condition you should be aware in each case whether it is static or progressive.

a. **Static** - where the medical condition is unlikely to change

b. **Progressive** – where the abilities may deteriorate

When working with disabled riders, it is important to consider '**MUSCLE TONE'** (sometimes abbreviated to '**TONE**') Alternative adjectives like 'tense', 'normal' and 'floppy' may be more descriptive than the terms below.

MUSCLE TONE	The normal tension that is required to support the appropriate part of the body (**NORMAL**).
HYPERTONIA/ SPASTICITY	Increased tone in a muscle or group of muscles (**TENSE**).
HYPOTONIA	Decreased tone in a muscle or group of muscles (**FLOPPY**).

3. **Riding, Vaulting and Carriage Driving – Characteristics:-**

- Involves an element of risk.
- Requires self-discipline.

- Provides independence.
- Gives an opportunity for success.

These activities offer the disabled participants:-

- A new and challenging activity.
- A requirement to develop communication skills both with the horse and with the people related to the riding.
- A need to learn a skill 'in order to succeed.
- The opportunity to improve muscle tone, coordination and posture, strength and balance

4. **Teaching -** Particular strategies may be needed and advice should be sought from appropriate carer or professional if there are challenges to delivering a session.

MEDICAL CONDITIONS

NEUROLOGICAL CONDITIONS

1. CEREBRAL PALSY

a. **Condition** - A disorder of movement resulting from a permanent, non- progressive defect or lesion of the immature brain. There may also be problems relating to vision, hearing, speech and intellectual ability. These riders may not be able to speak properly but often have an excellent understanding and should be spoken to normally. Many children also have epileptic seizures.

Classificactions for descriptive purposes are

- Spastic
- Ataxic
- Dystonic
- Athetoid

b. **Symptoms** - Symptoms vary considerably. Not all limbs are necessarily affected and there will be problems of balance and muscle control. Classification defines the limb and predominant symptoms

Paraplegia - Both legs affected.
Quadriplegia - Both arms and both legs affected.
Diplegia - Both arms and both legs affected but legs more so than arms.
Hemiplegia - Arm and leg on the same side affected.
Monoplegia - One limb only affected.

(1) **Spasticity** - The majority of people with cerebral palsy have increased muscle tone and are unable to relax. Movements are difficult, stiff and limited.

- If both legs are involved they may be held adducted so that it is difficult to separate them.
- The hips and knees may be flexed.
- The arms may be held flexed against the body with a clenched fist.

Muscle tone will increase with fear or stress but will decrease during smooth repetitive movements.

(2) **Athetosis** - People in this group have involuntary movement, due to lack off control in grading movement. which interferes with normal function. This can occur in any or all muscle groups (and affect balance, breathing, speech and facial expression) or may be confined to particular limbs and may increase muscle tone. If the person is over stimulated, symptoms may increase. Some people may also have choreothotic movements which are of a writhing nature.

(3) **Ataxia** - People in this smaller group have problems with balance and coordination. They are unco-ordinated , have difficulty with fine hand movements and walk with a wide-based gait.

(4) **Dystonic** – People in this group have fluctuating tone, which may include Hypotonia and/or spasticity.

Relevance to Riding .

Riding helps to develop automatic responses to movement and to normalise muscle tone. Placed in astride sitting, the rider can work to achieve symmetry, balance and control. This helps to normalise tone and allow increased range of movement and functional activity.

If pain is experienced in sitting astride, driving might be more suitable than riding. The control and mobility required for vaulting mean it may not be appropriate for people with Cerebral Palsy.

2. SPINA BIFIDA

a. **Condition** - Failure of the vertebral spines to fuse over the spinal cord *in utero* results in damage to the cord, most frequently in the lower back.

b. **Symptoms** - Symptoms and severity depend on the type and level of the lesion but there are four major problems.

- Incontinence.
- Loss of sensation below the level of the lesion.
- Muscle paralysis in the lower limbs.
- Spinal deformity.

HYDROCEPHALUS (the accumulation of cerebro-spinal fluid in the brain due to obstruction of its circulation) occurs in a number of cases. Those affected may have a shunt to drain off the fluid. There may sometimes be brain damage leading to a degree of learning difficulty.

c. **Relevance to Riding, Vaulting and Carriage Driving** –

1. If a participant has hydrocephalus and a shunt behind the ear, care should be taken with the fitting of hats to avoid pressure in this area, and with allowing the head to be below heart, so be careful with exercises.

2. The complete or partial loss of sensation, coupled with the paralysis of muscles, gives rise to specific problems.

(a) Danger of pressure and/or friction damage to the insensitive skin. Use a sheepskin over the saddle and see that friction does not occur between the stirrup leather and the lower limbs. Ensure rider or carer checks skin after sessions. If there is skin breakdown, riding or driving must be discontinued.

(b) Because of the loss of sensation and the muscle weakness, sitting balance will be insecure. Some type of neck strap or hand hold will generally be needed for riders. Western saddles are often useful. If carriage driving, additional support may be needed.

3. Riding improves trunk control and balance in response to the movement of the horse. The need to use the hands to control the horse encourages the use of existing trunk and leg muscles in riding or driving.

MUSCULAR DYSTROPHY

a. **Condition** - There are various types, all of which are progressive at various rates. The most common is the Duchenne type which occurs mainly in boys.

b. **Symptoms** of Duchenne - Weakness occurs first round the hips and in the lower limbs, progressing to affect the upper limbs and trunk. These children are generally of normal intelligence and aware of their condition. They may require a wheel-chair by their early teens and life expectation is short.

c. **Relevance to Riding and Carriage Driving** - Both can assist in maintaining skills. Frequent rests may be required during sessions due to fatigue. Regular assessment of ability will be necessary due to the progressive nature of the condition. Riding improves trunk control and balance in response to the movement of the horse. The need to use the hands to control the horse encourages the use of existing trunk and leg muscles in riding or driving.

SPINAL CORD INJURIES

a. **Condition** - Lesions are caused by trauma to the spinal cord following fractures or dislocations of the spine (e.g. from riding or traffic accidents).

b. **Symptoms** - There may be complete or partial paralysis, loss of sensation below the site of injury and incontinence and breathing difficulties. Involuntary muscles spasms may be present.

(1) **TETRAPLEGIA** - Injury to the neck, where the upper and lower limbs and most of the trunk muscles are affected.

The tetraplegic has major problems with balance, due to the loss of sensation and power. There may be spasticity in the lower limbs and marked weakness of the upper limbs.

(2) **PARAPLEGIA** - Injury to the thoracic or lumbar spine involving the lower limbs and lower trunk muscles.

Paraplegics have generally acquired good balance by the time they start to ride but they may have spasticity of the lower limbs.

c. **Relevance to Riding and Carriage Driving** –

Great care must be taken to prevent pressure or friction injury to the insensitive skin. If there is skin breakdown, both riding and driving must be discontinued.

People with paraplegia acquired during childhood may have limited growth of the lower limbs.

For most tetraplegics driving is more suitable.

Riding improves trunk control and balance in response to the movement of the horse. The need to use the hands to control the horse encourages the use of existing trunk and leg muscles in riding or driving.

MULTIPLE SCLEROSIS

a. **Condition** - This is one of the most common progressive neurological conditions and usually starts in early adulthood. The pattern of the disease is generally a series of acute episodes followed by partial remissions which may lead to gradually increasing disability.

b. **Symptoms** - The pattern of the disability is different for each person but in general, increased tone and loss of coordination of movement will be the factors that limit function.

(!) Gross motor skills are likely to diminish – such as walking.

(1) Speech may be slurred and vision may be impaired Swallowing and choking may be a problem.

(2) There may also be problems with bladder and bowel control and skin sensation may be abnormal.

(3) Fatigue should be avoided but activity during periods of remission is very important. There may be marked mood swings between depression and euphoria.

c. **Relevance to Riding, Vaulting and Carriage Driving** -
Both riding and driving may improve balance and coordination and help to maintain muscle power and normalise tone.

Danger of pressure and/or friction damage to the insensitive skin. Use a sheepskin over the saddle and see that friction does not occur between the stirrup leather and the lower limbs. Ensure rider or carer checks skin after sessions. If there is skin breakdown, riding or driving must be discontinued.

Vaulting may be an appropriate activity.

STROKE

a. **Condition** - Damage to an area of the brain causes loss of movement and sensation to the area of the body it controls. Speech and swallowing may be affected. There can be changes to personality and cognitive function.

b. **Symptoms** – Muscle weakness and a change in tone can result in asymmetrical posture and loss of normal movement which will produce problems with balance and functional activities.
There may be problems with scanning the visual field to one side and seeing objects approaching from that side.

c. **Relevance to Riding and Carriage Driving** - The aim is to regain symmetry by centring the rider and encouraging bilateral activity. The movement of the horse will help to normalise the muscle tone in the affected side.

Care should be taken if there is visual impairment.

Danger of pressure and/or friction damage to the insensitive skin. Ensure rider or carer checks skin after sessions. If there is skin breakdown, riding or driving must be discontinued

EPILEPSY

a. **Condition** - A disturbance in the electrical activity of the brain causing a brief episode of altered awareness. This can often be well controlled with medication.

b. **Symptoms** - The onset of epilepsy is usually sudden, the duration usually short and recovery spontaneous. This may be followed by a period of confusion or drowsiness. Four types of seizure are most likely to be seen.

(1) ***Absence*** - Momentary loss of awareness akin to a daydream.

(2) ***Tonic*** - Arms may stiffen and the head drop forward. This may last for a few seconds.

(3) ***Drop*** - Sudden loss of tone and the rider becomes floppy. If he is standing he will collapse to the ground; if mounted he might fall off. Recovery is rapid.

(4) ***Tonic-clonic 'convulsion'*** - The body stiffens first and then the limbs begin to jerk. This may be associated with shallow breathing and incontinence.

c. **Relevance to Riding and Carriage Driving**

Except for the tonic-clonic seizure, there is no need to dismount the rider. Turn the horse off the track to a safe position, halt and wait for a return of responses.

For the tonic-clonic seizure the rider should be dismounted and laid on the ground in the recovery position. Tight clothing should be loosened and the area cleared of objects that could be a hazard. Stay with the rider, give reassurance and wait for response to voice or touch. The horse should be removed from the area

In the case of a carriage driver, assess the situation carefully, immobilize the pony and, if it safe to do so, remove the driver from the vehicle.

Riders with epilepsy are most likely to be accompanied by staff from their school or residence who know them and their seizure pattern well. They will be able to identity any unusual aspects of the seizure that may require medical intervention.

The Association welcomes riders with epilepsy. However, the final decision, as to whether it is safe to ride/drive must rest with the Group Coach, in consultation with the other professionals involved. It is advised that a carer should be present at the ride, who has the necessary expertise to deal with such an incident.

Please refer to the separate RDA Epilepsy Policy for more guidance, particularly with regards to uncontrolled epilepsy. This can be found on the RDA website – Running your Group.

HEAD INJURIES

a. **Condition** - Head injuries may be followed by residual brain damage, which may be physical and/or psychological

b. **Symptoms** - There may be a variety of problems.

- Loss of motivation.
- Poor balance and coordination.
- Disturbance of muscle tone.
- Loss of concentration.
- Impaired speech.
- Irritability, frustration, aggressive behaviour.
- Loss of confidence.

c. **Relevance to Riding and Carriage Driving** - An invigorating environment encourages activity and develops attention span. The need to control the horse in its surroundings develops spatial relationships and encourages independent activity. Involvement in a group activity is an essential social skill that may have to be relearned.

POLIOMYELITIS

a. **Condition** – An infection which damages the peripheral nervous system and produces partial or complete paralysis of the affected muscles.. The degree of paralysis will vary but is generally asymmetrical. The development of the Polio vaccine has dramatically reduced the incidence of this disease

b. **Symptoms** - There is no loss of sensation, so participants will be aware of pain. Because of muscle imbalance, deformities may occur.

c. **Relevance to Riding, Vaulting and Carriage Driving** - Both riding and driving are excellent recreational and therapeutic options for these people with limited mobility. Vaulting may be appropriate depending on the area affected.

SENSORY IMPAIRMENTS

Visual Impairment

a. **Condition** – Visual impairment may be present from birth or sight may be reduced as a result of disease or injury.

b. **Symptoms** – Visual impairment can be partial or complete. Where it is partial it may be restricted:

(1) to a short distance;

(2) by blurring;

(3) by loss of vision in one or other eye;

(4) by loss of peripheral vision, or tunnel vision, where only objects straight ahead may be seen.

c. **Relevance to Riding, Vaulting and Carriage Driving**

Careful consideration has to be given to ensuring effective communication, and to the health and safety of all participants

- Touch and hearing are of vital importance and must to used sensitively.
- Take advice from the participant and/or carer specific communication needs.
- Describe surroundings and allow riders and carriage drivers to explore them.
- Speak or make some other sound when you are moving about so that they know where you are.

Hearing impairment

a. **Condition** - Deafness is a major but unseen handicap. It may be present from birth or acquired, which will affect quality of speech.

b. **Symptoms** - There may be problems with balance in addition to the hearing impairment.

c. **Relevance to Riding and Carriage Driving**

- Facilitates work on balance and communication skills.
- Assess the degree of deafness and find out how the person normally communicates. This may be by lip reading or sign language.
- Make eye-contact before giving an instruction.
- Use a helper to relay instructions.
- Where hearing-aids are worn, take special care with the fitting of hats.

SENSORY PROCESSING DISORDER

a) Condition – difficulties in organising responses to external stimuli, and to feedback from Central Nervous System

b) Symptoms Problems with – spatial awareness, co-ordination, balance, proprioception (processing of messages from nerves in joints)

c) Relevance to Riding, Vaulting and Carriage Driving

Opportunity to experience repetitive movement and overcome challenges to balance
Improving motor planning

May be lack of awareness of position of self and others in the environment
May be tactile defensive

ORTHOPAEDIC CONDITIONS

ARTHRITIS

a. **Condition**

(1) Rheumatoid Arthritis - A degenerative and progressive systemic disease that may affect any or all joints, particularly those of the hands and feet. Acute flare ups may occur.

(2) Osteo-Arthritis - A degenerative disease of joints, often related to previous injury or wear and tear on weight-bearing joints, often unilaterally.

b. **Symptoms**

(1) Rheumatoid Arthritis - Can occur in children (STILL'S DISEASE) or adults and will produce acute inflammation of joints, deformity and muscle-wasting. Pain may often be present.

(2) Osteo-Arthritis - Pain and loss of movement.

c. **Relevance to Riding and Carriage Driving**

Pain is the limiting factor in both rheumatoid and osteo-arthritis. Riding or carriage driving should be avoided when any joint is acutely inflamed.

Gentle rhythmic movement may help to reduce pain and aid relaxation

If the person has had surgery, approval should be sought from the surgeon before riding is restarted.

ABSENCE OR DEFORMITY OF LIMBS

a. **Condition** - This may exist from birth or as a result of an accident.

b. **Symptoms** – Lack of one or more limbs may affect the balance due to an altered centre of gravity of the body. A prosthesis may be worn.

c. **Relevance to Riding and Carriage Driving**

The level of amputation, or the degree of the deformity, must be considered and whether or not a prosthesis is worn. Special equipment may be needed.

If a prosthesis is normally worn, advice should be sought from a physiotherapist as to its suitability for riding.

Weight distribution may be unequal and care must be taken that the saddle is not distorted. Symmetrical sitting should be encouraged.

MUSCULO- SKELETAL CONDITIONS

Acquired conditions of joints and muscles of the entire body. Structures affected may include ligaments, tendons and joint capsules.

It is strongly recommended that the advice of a Chartered Physiotherapist is sought, as riding may be contra-indicated in some conditions.

LEARNING DISABILITIES

'Learning Disability' is an umbrella term which covers many conditions and syndromes. It may affect communication and understanding, sensory integration and motor development. People with Learning Disabilities may

- Have diminished sense of danger
- Have poorly developed speech
- Not have the vocabulary to communicate in their new surroundings.
- Have a limited vocabulary, which relates to their everyday activities.
- Tend to live in the present and have little understanding of time.
- Have limited short-term memory.
- Have Poor attention span.
- Have Poor recognition of sequencing,
- Have Poor sound discrimination.
- Have diminished control of emotions
- May not learn sequences easily.

c. **RELEVANCE TO RIDING, VAULTING AND CARRIAGE DRIVING.**

Regular sessions at an RDA Group can have a positive impact on all of the above.

DOWN'S SYNDROME

a. **Condition** –Chromosomal disorder resulting in Learning Difficulties and symptoms as below.

b. **Symptoms**

- People with Down's Syndrome vary considerably in intelligence.
- Children may have heart abnormalities requiring surgery
- People with Down's Syndrome tend to have short limbs, hypotonia and hypermobility
- A few suffer from Atlanto-Axial Instability. This is a condition of potential instability between the first two joints of the neck. The spinal cord can, in theory, be damaged if the neck is subject to extreme flexion or extension. Riding poses no greater danger than falling over, which Down's Syndrome children do in common with other children. Recent guidelines from the Chief Medical Officer at the Department of Health suggest that x-rays do not help to predict those who are at risk. If parents or group coaches are concerned, they should approach the rider's medical advisers.

c. **Relevance to Riding and Carriage Driving** –
Riding is beneficial for these people to normalise tone and improve fitness.
The tendency to have short limbs may produce problems with balance and control.
There is a pre-disposition to weight gain.
People with Down's Syndrome tend to offer affection freely – to people and horses.

OTHER SYNDROMES

There a increasing number of syndromes being identified, amongst which the current most frequently seen are;

ANGELMANNS, FRAGILE X, RETTS, PRADER-WILLI,

Common threads of symptoms are

Muscle weakness
Low tone
Lack of independence
Poor motor skills
Learning difficulties.

GLOBAL DEVELOPMENTAL DELAY

a. An umbrella term for children who are delayed in reaching normal milestones. Can be a diagnosis which may be altered in the future as more specific symptoms present.

b. Symptoms

Delays in achieving rolling, sitting, pulling to stand and walking
Delayed communication skills

c. Relevance to Riding

These children may present before the age of 2 and not be able to be managed in all groups. Instruction needs to age appropriate.

The movement of the horse stimulates balance reactions which help in the development of sitting and postural control, and may lead to achieving milestones.

AUTISTIC SPECTRUM DISORDER

a. **Condition** - There can be an inability to make sense of the world around, which can lead to behavioural problems, communication difficulties, intolerance of change and learning difficulties.

b. **Symptoms** - The following characteristics may be seen.

- Profound lack of contact with other people.
- Not making eye-contact.
- Obsessive desire for things to be kept the same. Very upset if anything is changed and may remain upset until the change is reversed.
- Tendency to ritual repetitive behaviour and to learning by heart without understanding.
- Poor communication as a result of being mute or having difficulty in speaking, even if they understand words.
- Little non-verbal communication, facial expression or gesturing.
- Inclination to literal interpretation of words
- Tactile defence – dislike of touching or being touched by some textures.

c) **Relevance to Riding and Carriage Driving** –

The rhythmic movement of the horse may be calming.
Physical contact with the horse may help to develop other relationships and reduce tactile defensiveness
Communication and empathy may be increased by interaction with the horse
Can be assisted to learn to work within boundaries
Learning to take turns
Instructor needs to be alert to the possibility of unpredictable actions

PSYCHIATRIC DISORDERS

- Psychiatric disorders may result from failure of normal development, from abnormal development or from reaction to internal or external stress.

- You can obtain further details, including a classification of these conditions, from RDA National Office.

Behavioural Problems

a. **Condition** - Emotionally disturbed children or maladjusted adolescents or adults who feel threatened by personal contact and fear rejection.

b. **Symptoms** - Inappropriate behaviour. May be withdrawn, anxious or aggressive

c. **Relevance to Riding, Vaulting and Carriage Driving** - The horse provides a safe relationship through which to develop trust in instructor and helpers and to learn a new skill with consequent gain in confidence, self-esteem and discipline.

COMMUNICABLE DISEASES

1. Any form of close human contact can lead to the transmission of infection. In general, the ride poses no more risk to helpers than other situations involving able-bodied people. However, you should note the following points.

2. Hepatitis B

a. The hepatitis B virus is usually transmitted by injection using contaminated equipment or fluid. To establish whether someone is a carrier they must have a blood test. As this may be negative one day and positive soon after, it does not seem reasonable to upset a disabled rider by asking for them to be tested.

b. If you are assessed to be at risk, you should be immunized by a course of injections followed by a blood test to check that it has taken effect. You will need a follow-up test and, if necessary, a booster dose after 5-10 years. However, if you are bitten by a rider, you are advised to contact your doctor.

3. AIDS

a. The incidence of AIDS in the population is rising slowly, but most cases are found in intravenous drug users and in homosexual or bisexual groups. To establish whether someone has the virus, they must have a blood test. A disabled rider may have the virus without yet having developed the full disease, but the possibility is very small.

b. A considerable amount of blood or body fluid is required to transmit the virus from one person to another. A small smear of blood from a carrier on to the skin of a helper would rarely be enough to do so.

c. Although nothing in medicine is ever certain, the chance of transmission during the activities of a Member Group is extremely remote. Those involved need to be aware of the problem but they should not alarm helpers by exaggerating the risks. Nevertheless, if anyone is worried they should consult their doctor.

Immunisation - For members of RDA Member Groups there is a remote but nevertheless real risk of contracting Hepatitis B and/or Tetanus, both of which can be extremely serious. You are advised to consult your General Practitioner (GP) for the latest guidelines, to check on your immune status and to seek advice as to whether any action is necessary.

a. Tetanus - A standard immunization programme is available to all, free of charge.

b. Hepatitis B - Your GP will recognise the risks but may decide, after making a risk assessment, that it is not necessary to immunize you and may decline to do so.

c. Polio - As for tetanus. Immunisations can be given concurrently.

G. GLOSSARY

ABDUCTION	Movement away from the mid-line of the body.
ADDUCTION	Movement towards the mid-line of the body.
ANAESTHESIA	Loss of sensation.
APHASIA	Failure in word selection. Inability to use/comprehend the spoken or written word ('Expressive/Receptive Aphasia').
APRAXIA	Inability to initiate voluntary movement.
ARTHRITIS	Inflammation of a joint.
ARTHROPLASTY	Surgical replacement or reconstruction of a joint.
ARTHRODESIS	Fixation of a joint.
ATAXIA	Poor co-ordination of muscle control. Wide-based unsteady gait with coarse tremor in upper limbs on attempted movement.
ATHETOSIS	Involuntary movements, which disrupt normal functional movement.
ATROPHY	Wasting of any body tissue.
AUTISM	A condition characterised by communication and behavioural problems, repetitive movements and intolerance of a change of routine.
BILATERAL	Relating to both sides of the body.
CENTRE OF GRAVITY	A point at which the downward force of mass and gravity is balanced on either side of a fulcrum. In the human body this is normally balanced about the pelvis
CNS	CENTRAL NERVOUS SYSTEM. The brain and spinal cord.
CVA	Cerebro Vascular Accident. Brain damage as a result of a haemorrhage, clotting or spasm in a cerebral blood vessel (STROKE).
CLONUS	Repeated involuntary contraction of a spastic muscle in response to stretch. Seen particularly in the calf muscles when pressure is applied to the ball of the foot. May be relieved by pressure of weight-bearing on the whole foot.
CONGENITAL	Present at or before birth.

CONTRACTURE	Fixed position of a joint due to shortening of a tendon, joint capsule or muscle.
CONTRA-LATERAL	Relating to the opposite side of the body.
CYSTIC FIBROSIS	Genetic condition characterised, in addition to other symptoms, by persistent lung infections.
DIPLEGIA	In Cerebral Palsy, impairment of movement in all four limbs with greater involvement of the lower limbs.
DYSARTHRIA	Difficulty in word production due to muscle or nerve dysfunction.
DYSLEXIA	Difficulty in recognizing the written word.
DYSPHAGIA	Difficulty in swallowing.
DYSPHASIA	Difficulty in word selection (see APHASIA).
DYSPRAXIA	Difficulty in initiating movement (see APRAXIA).
DYSTROPHY	Wasting.
EUPHORIA	Unrealistic feeling of well-being or elation.
FLACCID	Decreased, or absence of, muscle tone inhibiting movement.
HEMIANOPIA	Loss of vision in half of one or both visual fields. Inability to scan to one side of the body.
HEMIPLEGIA	Paralysis of one side of the body.
HYDROCEPHALUS	'Water on the Brain' (see Spina Bifida notes).
HYPERTONIA	Increased tone in a muscle or group of muscles.
HYPOTONIA	Decreased tone in a muscle or group of muscles.
KYPHOSIS	Posterior curvature of the spine, normally seen in the thoracic region.
LESION	Physical abnormality in an organ or tissue.
LORDOSIS	Anterior curvature of the spine normally seen in the cervical and lumbar regions.
MICROCEPHALIC	Small head with incomplete development of the brain.
MONOPLEGIA	Paralysis of one limb.
MUSCLE TONE	The normal tension in muscles that is required to support the appropriate part of the body in readiness for action

PARAESTHESIA	Disturbed or altered sensation - numbness, tingling
PARAPLEGIA	Paralysis of the lower limbs. Term generally used to describe paralysis caused by damage to the spinal cord.
PARESIS	Partial paralysis.
PEG	Percutaneous gastrostomy
PROGNOSIS	Prediction of the course of a disease.
PROPRIOCEPTION	Awareness of position of body, and parts of the body. Muscle and joint sense.
QUADraPLEGIA	Paralysis of all four limbs and trunk in Cerebral Palsy
REFLEX	The automatic response to a stimulus. Normally reflex. Responses are controlled by higher centres in the brain. Where there is brain dysfunction unrestrained. reflexes may lead to abnormal muscle tone and/or movement.
SCOLIOSIS	Abnormal lateral curvature of the spine
SHUNT	Tube with one-way valve to drain cerebro-spinal fluid from the brain where circulation is obstructed.
SPASTICITY	Increase in muscle tone due to loss of control of spinal cord reflexes. Occurs in lesion or injury to the central nervous system.
TENOTOMY	Surgery to a tendon. Generally used to achieve lengthening of a muscle.
TETRAPLEGIA	Paralysis of all 4 limbs following spinal injury
TRAUMA	Injury; physical damage to tissue.