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NOVEMBER 1982 - NEWSLETTER NO. 25

Scoliosis in Children

Diane Coggings, MSRC,
Superintendent in Charge of Physiotherapy
Queen Elizabeth Hospital for Children, London.

A scoliosis in children is always abnormal. It may be defined as any lateral curve, tilt, deviation or rotation of one or more vertebral segments of the spine from the normal straight position. It may not be a primary defect nor always require treatment. The incidence is 3% in the general population and 1/10 of these need treatment.

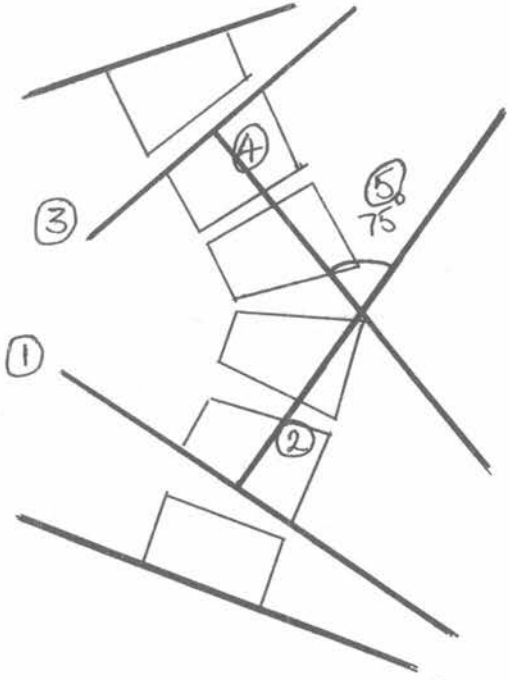
Evaluation

Evaluation of a child with scoliosis is important, as an exercise programme/ brace/seating orthosis can be based on the assessment and used to compare with later.

Clinical

1. The child should be looked at in his natural relaxed standing posture, or if non-ambulant, in a wheelchair, from the front, side and back and any asymmetry noted.
2. Measure leg lengths: real and apparent.
3. Assess range of active movement of spine and other joints, especially hips.
4. Assess muscle strength.
5. Assess breathing pattern.
6. Bend forwards with knees straight and look for a rib "hump" to indicate rotation.
7. Functional abilities.

X- RAY
Cobb's Method:



1. Lowest bottom vertebra which tilts to concavity of curve.
2. Erect perpendicular from bottom of 1.
3. Highest vertebra, whose top tilts to the concavity of the curve.
4. Drop a perpendicular from 3.
5. Measure intersecting angle.

Scoliosis may be divided into two major groups.

1. Non-Structural:
No pathological abnormalities of the spine, no rotation, no intrinsic involvement of the mechanics of the spine and the child can voluntarily correct and maintain. It may be poor posture alone, or it may be a compensatory adjustment, e.g. a short leg, or pelvic tilt with an adduction deformity of the hip. The basic curve pattern is a C curve so that it never crosses the midline in two directions. In the ambulant child, the curve will disappear when he sits. There is no treatment for the non-structural scoliosis, but it must be remembered to watch that this does not become structural.

2. Structural:
a) Congenital - child is born with spinal anomalies, e.g. hemivertebra. This represents 5% of the cases.

b) Adolescent Idiopathic - this is by far the most common, representing 85%. It affects girls more than boys 4:1, most common age from 10 - 13. The curve may be triple, with compensatory curves above and below the primary, and it may increase at irregular and unpredictable intervals until growth is complete. (Rissers sign: when the iliac apophyses have appeared throughout their length on X-ray).

c) Neurological - due to imbalanced trunk paralysis e.g. spina bifida, CP, muscular dystrophy. Tends to be progressive and severe because gravity helps the stronger side and can increase after spinal growth. The curve is usually very long and telescopic.

Treatment

1. If a curve is under 20°, treatment is usually spinal exercises to maintain flexibility.

2. For a curve over 20°:-
   a) A corrective plaster of Paris holding jacket may be used, and wedged at intervals on the convex side to obtain maximum correction.

   b) A brace. Common ones used are:-

      BOSTON BRACE

      Made from a prefabricated plastic pelvic module, comes in 20 sizes and is trimmed to the needs of each individual patient. The outer is a hard polypropylene shell and lined with soft foam polyethylene. It is designed with 15° lumbar flexion and 30° abdominal concavity, and then fitted with built in pads (just below the apex of the curve) to help correct lumbar and thoraco-lumbar curves. Ideally, the brace may only be used on a curve whose apex is lower than T10, but a "superstructure" (like a Milwaukee's) may be added if the apex is higher. The brace is designed to be dynamic. Whenever a pad is built in, a void(relief) is provided opposite to the pad to allow the child to pull the spine away by active muscular effort. The built in lumbar flexion brings the transverse processes of the curved lumbar vertebrae to a point where they can be reached by the pads to exert correctional forces.

      Advantages: Quick to trim, lightweight, washable and acceptable.

      Adapting to wearing the brace 23 hours per day can take up to a month.

   Exercises out of Brace
   1. Posture correction in front of a mirror, with emphasis on lumbar flexion, then walking in this posture.
   2. Maintain/increase spinal flexibility.
   3. Maintain range of hip movement - especially flexors.

Exercises in Brace (done sitting on a stool)

1. Lumbar flexion (pelvic tilt)
2. Distraction - by elongating spinal column whilst holding pelvic tilt.
3. Correction of lateral deformity by child performing a trunk shift at the apex of the curve, by moving posteriorly and medially.

MILWAUKEE BRACE

This consists of a thermoplastic material girdle, for which a cast of the child is taken, and two adjustable steel supports from the girdle to the chin at the front and occiput at the back. It is used for a curve whose apex is higher than T10. Pads are used on straps; it is worn 23 hours per day and exercises are done as with the Boston.

SUSPENSION ORTHOSIS

Used for mentally/physically handicapped children.

Indications

1. Wheelchair bound
2. Curve must be flexible to an extent
3. Good skin
4. A "cone-shaped" thorax is better than an obese child for fixation of the orthosis.

A cast is taken in a suspended position, and the orthosis, with a front fastening is made out of a thermoplastic material and lined with evazoate (and sometimes fleece). It should be put on lying down and the straps fastened as tightly as possible. The suspension attachment on the wheelchair should be as low as possible, ideally just higher than the femoral head. This makes dressing, leaning forward, pushing the chair and sport much easier. The chair must always be tested for stability prior to use.

PLASTERZOTE SITTING SHELL - Athetoid and Spastic CP.

A relatively inexpensive and easily constructed seat for severely disabled infants, which can be extended to include head, straps added for trunk, legs or to attach to chair and help to prevent deterioration of spinal deformities.

In a child who is half ambulant/half chairbound, a polypropelene jacket may be made to fit each individual and calipers then adapted to attach on to the brace when walking.

INSET SEATING MOULD

A body support shell which is filled with polystyrene beads, as is the liner. This normally extends to the atlas, but can include the head. This is not a corrective brace, but an aid to posture control, and can be used in and out of a wheelchair.

3. Lateral muscle stimulation by electrical methods are being used in some centre. (External skin stimulation.)

4. Surgery is indicated if it is clear that conservative methods are failing or the spine will be unstable when growth is complete, (usually around 50^{0}). Pain and respiratory impairment are added indications, especially in neurological curves. A posterior fusion alone is often done when no kyphos is present, e.g. Dwyer. The post-operative management varies with the aetiology and methods used. Halo-tibial traction is one method. The child may have to be braced for up to one year after surgery.

The aims of treating scoliosis are to prevent progression and long term effects. School screening has a very important role in diagnosis, and the therapist can help considerably by performing periodic assessments, especially in the neurological cases. It has been found that a non-ambulant child with muscular dystrophy should be treated before the curve becomes greater than 40°. A curve of 40° or less is very often missed.

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Physiotherapy Management of Scoliosis in Stanmore

Nanci Heah, MCSP,
Royal National Orthopaedic Hospital,
Stanmore.

There are different schools of thought and ways of treating scoliosis, but this is the approach at the Royal National Orthopaedic Hospital, Stanmore.

In the pre-operative phase the aims of treatment are:

1. Assessment of Patient:

Most straightforward idiopathic scoliotic patients have normal muscle power. However, a small percentage with other disorders as in Spina Bifida, Myelo-meningocoele and Poliomyelitis may present with weak muscles or decreased motor function. It is, therefore, essential to assess gait and do an accurate muscle chart where needed. This is also relevant for post-operative rehabilitation as some patients may be 'put off their feet' due to alteration in posture and the weight of the new plaster jacket/brace causing difficulty with balance. Another important assessment is respiratory function, as explained in the Lung Function Test.

2. Explanation of Pre and Post Operative procedures:

Most patients are nervous and fearful of treatment gadgets and their impending surgery. It is a known fact that fear intensifies the level of pain felt post-operatively, so by reducing the level of anxiety with a full explanation hopefully the patient will need less analgesia.

Furthermore one cannot expect a young patient to comply effectively with treatment immediately post-operatively, when he is under the influence of anaesthesia and may be feeling some discomfort, if he has not been shown/taught his exercises previously.

As a general rule most of the patients are required to do Cotrel traction. This manual, intermittent self-imposed traction (devised in France) is used as a diagnostic measure to note how mobile the spine is, as well as an adjunct to surgery to facilitate easier distraction by mobilising the soft tissues and spine pre-operatively. Cotrel traction is carried out for 10 minutes, hourly during the day time for two days to about a week prior to surgery. Dynamic traction is achieved by the combined effect of extension of the legs on the stirrups and arms on the handlebar, holding the stretch position for 10 seconds followed by a rest of equal duration. Cotrel traction cannot be done if patients have poor co-ordination or will not co-operative, as in the very young.

Depending on the pathology of the spine some patients may be ordered halo-tibial traction instead of Cotrel. Here, patients are nursed on a stryker bed with weights added daily until about half the patient's body weight is attained. If there are any changes in neurology the amount of weight applied must be stopped or reduced. Joint range and lower leg neurology must be carefully noted daily.

Back care, leg rolling, leg and deep breathing exercises are also taught. Bird therapy is used to help maintain an adequate ventilation of the lungs and 'Birding' is done for 5 minutes, hourly, immediately post-operatively. The frequency of Birding is dependent on the vital capacity tested post-operatively as compared to the pre-operative value.

3. Lung Function Test

Lung volume is related to the subject's physique. In the scoliotic patient impaired respiratory function is expected due to over-crowding of the ribs leading to reduced lung field. Furthermore some patients have associated heart/lung diseases and it is vital to test respiratory function pre-operatively as this provides an idea of the patient's capability to cope with major surgery without respiratory complications. The lung function test can easily be done using a spirometer or digital spirotron. These pre-operative values also provide a base line for comparison post-operatively, as the vital capacity is checked daily until the patient reaches approximately 75% of his pre-operative level.

Post-Operatively the aims of treatment are:

1. Maintain adequate ventilation of the lungs by deep breathing exercises and Bird therapy.

2. Prevent circulatory problems like D.V.T. arising with leg exercises.

3. Maintain muscle tone and joint range for patients in halo-tibial traction with active/assisted/passive leg exercises.

4. Re-advise on postural awareness to avoid straining the spine with advice on back care, bed mobility and transfers.

5. Final rehabilitation by building up exercise tolerance with short but frequent sessions of sitting and walking. Balance and gait re-education are important especially for patients who have had halo-tibial traction as they tend to 'scissor' slightly initially when walking.

Plaster jackets are normally applied approximately 10 days to 2 weeks following posterior spinal fusion with Harrington Rod instrumentation. Patients are mobilised at 48 hours and discharged when they are confident on their feet. The total period of hospitalisation is approximately 5 - 6 weeks for a straightforward posterior spinal fusion. The plaster jackets are removed at 5 - 6 months and a light sub-ortholene brace applied. The total period of immobilisation is a year.

Young patients and those with very gentle, mobile curves are treated conservatively with bracing. Here posture advice is given and lateral shifting and pelvic tilting exercises . Patients are required to wear the brace 23 out of 24 hours but normal activities and sports are encouraged.

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Dental Therapists - What are they and why should they interest you?

Marjorie Dutton, Chairman, British Association of Dental Therapists, Stockton on Tees.

We have in common that both dental therapists and paediatric physiotherapists work with children with the aim of improving the quality of life of our child patients.

The Dental Therapist is the one member of the dental team trained specifically to work with children both in the repair of decayed teeth, and in the prevention of dental disease. We work under the direction of a registered dentist, who examines the patient and draws up a written treatment plan for each patient. Under these circumstances we are permitted to carry out dental treatment as laid down in the Ancillary Dental Workers Regulations. These regulations permit us to extract deciduous teeth under local anaesthesia, and to undertake simple fillings in both deciduous and permanent teeth. In this context a simple filling

is one which does not involve the pulp or the incisal edge of the tooth; and in which the filling is inserted in a plastic state (i.e. it hardens after insertion into the cavity.) It must be emphasised that the decision as to whether a cavity is suitable for a therapist to treat is one made by the directing dentist. In addition a dental therapist is permitted to clean and polish teeth; to scale teeth; to apply fluoride to the teeth; and to apply fissure sealants to the teeth.

An important additional part of the work of a dental therapist is that of giving advice on matters relating to oral hygiene. This is often referred to as Dental Health Education (D.H.E.) and individual therapists may carry out different amounts and types of D.H.E. Thus D.H.E. can vary from one to one instruction in the surgery; to carrying out D.H.E. talks in schools; to involvement in large scale campaigns. There are a number of dental therapists employed as full time Dental Health Educators; although the majority carry out both clinical and D.H.E. duties.

Dental Therapists pursue a two year (92 academic weeks) course and after qualification must enrol with the General Dental Council. Only then are therapists permitted to work as dental therapists.

The number on the General Dental Council Roll on 31st December 1981 was 541 of whom 378 were employed within the Community Health Service; 27 within the Hospital service, 2 in the Armed Forces and 10 overseas. Of the remainder 13 thought it likely that they would work in 1982, while 111 were not working and did not expect to work in 1982.

It should be pointed out that dental therapists are only allowed to work within the public dental services (i.e. community and hospital) and not within the general or private dental services.

In conclusion, may I say personally, I find the job satisfying; not only am I able to repair decayed teeth, but I can also attempt to prevent disease and pain both in the surgery and through my D.H.E. If we can change the attitudes of children both in relation to caring for their teeth, and accepting treatment when necessary - then I believe we will be helping to create a more dentally aware adult population.

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MUSCULAR DYSTROPHY GROUP OF GREAT BRITAIN.

The Group is primarily a research charity which funds research over a wide range of issues. At the moment, because of course the muscular dystrophies are mainly inherited diseases, there is a great interest in the field of genetic research and the mapping of the X chromosome.

However the Group is also active in the welfare field. This part of the Group's work includes endeavouring to ensure full use is made of the voluntary and statutory services which are available in the United Kingdom and, through its branches, maintain a friendly link with people who have muscular dystrophy and their families.

The Group is the main source of information on muscular dystrophy and allied diseases in the United Kingdom and in this role produces a variety of informative literature which is available free to all those suffering from muscular dystrophy and the allied diseases the Group covers.

A quarterly tabloid newspaper, the "Muscular Dystrophy Group Journal" and a monthly Newsletter is distributed free of charge to members and other interested

parties. A regular copy of the Journal/Newsletter or any other literature can be obtained by writing to the Muscular Dystrophy Group Headquarters.

Patient Care Department

Based at Headquarters we have the Patient Care Department which is available to give advice either by phone or by letter on any welfare subject. The department also updates the welfare literature and organises the production of new leaflets as necessary. To spread the word about muscular dystrophy we give talks to schools, and colleges and organise seminars throughout the country.

To contact as many families and organisations as possible means that the Group relies in some areas on the team of Family Care Officers and Regional Organisers.

Family Care Officers

They are paramedically trained personnel who are situated at some of the main neuromuscular centres throughout the country and are there to look after the needs of muscular dystrophy sufferers and their families. In some centres they keep a genetic register of families, carry out research into the para-medical aspects of muscular dystrophy and give talks about muscular dystrophy to those in their area who are interested. At the moment we have Family Care Officers based in Edinburgh, Newcastle, Belfast, Manchester, Cardiff and London. For details please contact the Patient Care Department at the Muscular Dystrophy Group Headquarters.

Regional Organisers

Through the United Kingdom the Group's Regional Organisers are involved in helping to set up new branches., supporting the work of existing branches and most importantly linking sufferers and their families with branches of the Muscular Dystrophy Group. Being part of a branch gives sufferers and their families an opportunity not only to meet other people with the same problems but also to make a positive effort to fight back against muscular dystrophy and the other allied neuromuscular diseases.

A list of local branches can be obtained from the Branch Officer at the Muscular Dystrophy Headquarters:- Natrass House, 35 Macaulay Road, London SW4 OQP. Tel. 01-720-8055

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EQUIPMENT

PHYSIOFORM New from Carters (J. & A. Ltd.,) Westbury, Wilts. The physioform system comes in three sizes - small £245 (£281. 75p inc. VAT and carriage)
medium £285 (£327. 75p)
large £367 (£422. 05p)

It consists of waterproof covered foam wedges which can be combined in various ways, with Velcro strips, to give support in sitting, prone, supine and standing. The individual using the system would have to have a fair degree of ability in standing to make use of that particular facility.

ADAPTED MUSICAL INSTRUMENTS

'The Soundpost' is a musical instrument cooperative of fine highly skilled craftsmen who have established a musical instrument making and repair service at competitive prices. They are able to modify instruments for the physically handicapped. Records of all jobs done are being kept in order to assist future enquirers. Members of Soundpost have undertaken research on music for the disabled. Contact: Robin Stocks, The Soundpost, Musical Instrument Cooperative Ltd., Unit 122, 31 Clerkenwell Close, London EC1. Tel. 01-250-1164

SHEEPSKIN FOOTWEAR

Sheepskin lined footmuffs are available from John Wood & Son, Linton, Old Cleave, Minehead, Somerset. TA24 6HT Tel. 0984-40291

TOYS FOR MENTALLY HANDICAPPED PEOPLE

Leeds and District Active members - Bert Airey and Rachel Hirst - have produced the third edition of their catalogue of toys. Children from a local ESN(S) school have tested the toys which were made at a Leeds Training Workshop. The catalogue costs 25p from: Leeds & District Active, 3 Roxholme Terrace, Leeds. LS7 4JH

PORTA BUGGY SYSTEM

Andrews Maclaren and Burnett together have designed a shell seat with a mouldable lining for a buggy chassis.

Portable Shell Seat £28.65. Porta fabric soft seat £18. 89.

Carrycot to fit the buggy chassis. £63.74. Porta buggy chassis £34.40
From: Andrews Maclaren Ltd., Long Buckby, Northampton. NN6 7PF
Tel. 0327-842662

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PUBLICATIONS

IYDP and After - the U.K. Response

This report on our contribution to the International Year of the Disabled can be obtained free from : DHSS, Health Publications Unit, No. 2 Site, Manchester Road, Heywood, Lancs.

Your Child in Hospital - Can you stay with him?

Free leaflet from National Association for the Welfare of Children in Hospital which answers parents' questions. Printed by Wyeth Laboratories, copies can be obtained from NAWCH at 7, Exton Street, London.SE1 8UE Price. 35p inc. p & p.

Life Saving and Water Safety

Published by the Royal Life Saving Society, it covers the prevention of accidents, rescue and recussitation skills. Price: 95p from most booksellers or from the Society's headquarters at: Mountbatten House, Studley, Warwickshire B80 7NN

Community Services in Action

Association of Professions for the Mentally Handicapped, report of 7th Annual Conference at Keele University 1980. £2.80 inc. p & p. 13 papers.
From APMH, 126 Albert Street, London NW1 7NA Tel. 01-267 - 6111

Team-work in Mental Handicap

APMH report and King's Fund Centre Conference, December 1981. 20p per copy plus large S.A.E.

Committee on Restrictions against Disabled People

CORAD has published a report which looks at the architectural and social barriers to access for disabled people and made recommendations on improvements
From: DHSS Publications Unit, PO Box 21,Stanmore, Middlesex HA7 1AY £5.35.

Have Wheelchair --- Can Travel

A useful booklet of hints for the organisers of group holidays abroad for disabled people. Published by the Holiday Committee of the Wales Council for the Disabled, Crescent Road, Caerphilly, CF8 1XL

Teams for Mentally Handicapped People - M. Plank

This report examines the need for coordination of services and looks at the relationship between District Handicap Teams and Community Mental Handicap Teams. It is considered that children's needs should be met by D.H.T.s, until school leaving age, after which CMHTS take over. From: The Campaign for Mentally Handicapped People 1982, CMH Publications, 8 Church End, Gamlingay, Sandy, Beds. £1.50 + 25p postage.

Pushchairs.

A survey of twenty children's pushchairs showing five to be unsafe. WHICH - June 1982. P.323-327

BOOKS

Paediatrician's Psychological Handbook. Charles Toback.

Medical Examination Publishing Co. Inc. 1980 £6.30

Common Symptoms of Disease in Children. R.S.Illingworth. 7th Edition Blackwell 1982. £9.50

Treatment of Cerebral Palsy and Motor Delay. Sophie Levitt. 2nd Edition Blackwell. 1982

Yoga for Handicapped People Dr. B. Brosnan. £4.95 paperback. £6.95 hardback. Souvenir Press Human Horizons series. 1982

Care of the Neurologically Handicapped Child. A.L.Prensky et al. 1982 £8.50 Oxford University Press.

Paths for Mobility in 'special care' J. Presland. British Institute of Mental Handicap. 1982. £10.75 (£6.00 paperback) Teaching gross motor skills to very handicapped children. BIMH - Wolverhampton Road, Kidderminster. OY10 3PP

The Disabled Child and Adult. Dr. B. Meredith Davies, Bailliere Tindall 1982 £8.50. Describes the major disability and the medical, educational and social provision provided.

Help for the Handicapped Child.
An illustrated guide to official and voluntary organisations providing advice and support for handicapped children and their families. Produced by the Borough of Camden but of general interest. From: Communications Unit, Social Services Dept., Willing House, 356/364, Grays Inn Road, London WC1X 8BH. £2.00 inc. p & p. (April 1982)

Asthma. The Facts
Donald Lane, Anthony Storr. Oxford University Press. 1981. £2.95

CHILDREN'S BOOKS

For babies 'Family' and 'Helping' by Helen Oxenbury. Methuen Walker 99p Useful for explaining relationships and responsibilities at a basic level.

Divorce. 'I have two homes' by Althea. Dinosaur Publications. 85p paperback Parental view point sympathetically explained.
'When parents split up'. Ann K. Mitchell.

Adoption.'Why was I Adopted?'Carole Livingston. Angus & Robertson £3.95.

Death. 'When Uncle Bob died' by Althea. Dinosaur Publications. 85p paperback.

'A Lion Guide - A Death in the Family'. Jean Richardson. Lion Publishing £1.50p

Disability. 'Mummy, Why can't I breathe?' Angus & Robertson. £3.95 (Asthma)

'I have Asthma' by Althea. New this month from Dinosaur Publications 85p paperback

'I can't talk like you' by Althea. Dinosaur Publications. 85p paperback. (speech problems.)

'Ben's Spider' Elaine Brown. Lion Publishing. 35p. A story of a child without a right hand who discovers that a spider, with only seven legs, can still weave a perfect web.

ARTICLES

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1. Tyrrell S. Chidhood Deaths in an Inner City area 1977 - 1979. Health Visitor. Oct. 1982. Vol. 55 p. 513 - 518

2. Burne R. Helen House - A Hospice for Children. Health Visitor. Oct 1982 Vol. 55. p.544 - 545

Ethnic Minorities. Understanding the Vietnamese in Britain.

1. Pearson R. Part I. Background and Family Life. Health Visitor. Aug. 1982 Vol. 55 p. 426 - 430

2. Pearson R. Part II. Marriage, Death & Religion. Health Visitor. Sept. 1982 Vol. 55. p. 477 - 483

3. Pearson R. Part III. Health, Beliefs, Birth & Child Care. Health Visitor Oct. 1982. Vol. 55 p 533 - 540

Scoliosis

1. Papaioannou, Stokes, Kenwright.
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2. Weinstein, Savala, Ponselfi
Idiopathic scoliosis. Long term follow up and prognosis in untreated patients. Am. J. of B. & J. Surg. Vol. 63a. No. 5. 702 - 711

3. Scott, Piggott.
A short term follow up of patients with mild scoliosis.
Brit. J. Bone and Joint Surg. Vol. 63b. No. 4 1981. p. 523.-525

4. Taylor J.R., Liston C.B., Twomey L.T.
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5. Walmsley R.P., Galpin P. Lowther K and Ashworth M.A.
Effect of Application of the Boston Brace System on the electrical activity of the paravertebral muscles in adolescents with idiopathic scoliosis: preliminary report. Physiotherapy Canada 1982 34 2, 69 - 74

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Implications of neuro-developmental deviations in low birth weight and mechanically ventilated infants.
Australian Journal of Physiotherapy. 28 2. 3 - 8

2. Irwin - Carruthers S.H.
Developmental aspects of shoulder control. South African Journal of Physiotherapy 1982. 38 1 7 - 8

3. Effgen S.K.
Integration of the plantar grasp reflex as an indicator of ambulation potential in developmentally disabled infants. Physical Therapy 1982 62 4 432 - 435.

4. Beck, Andriacchi, Kuo, Fermier, Galante.
Changes in gait patterns of growing children. Am. J. B& J. Surg.
Vol. 63a No. 9. Dec. 1981. 1452 - 1456

Handicap

1. Moore S., Bergman J.S., Edwards G. Cowsar D. Echols S.D. & Forbes J.
The DESEMO customized seating support - custom moulded seating for severely disabled persons.
Physical Therapy 1982 62 4 460 - 463

2. O'Neill D.L. & Harris S.R.
Developing goals and objectives for handicapped children.
Physical Therapy 1982 62 3 295 - 298

3. Wingate L.
Feasibility of horseback riding as a therapeutic and integrative program for handicapped childre.
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Neuro-muscular problems.

1. Roberts D.W. Positioning device for individuals with neuro-muscular disabilities.
Physical Therapy 1982 62 1 33 - 34

2. Evans. Drennan Russman
Classification and orthopaedic management of spinal muscular atrophy
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3. Chapman C.E. & Wiesendanger M.
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Physiotherapy Canada. 1982 34 3 125 - 136

4. Goodisman L.D.
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Effects of vestibular stimulation in seizure-prone children. An E.E.G. study . Physical Therapy 1982 - 62 1 16 - 21

3. Turnbull G.I., Ross L.C., Peacock J.B.
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4. Zachazewski J.E., Eberle E.D., Jefferies M.
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5. Abbie - Denton M.
Physiotherapy in the Treatment of Hyperkinetic children.
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6. Steinberg M.A.
A Longitudonal Study: concerning sensory motor functioning in pre-school and educational achievement in grades 1 and 2.
Australian J. of Physio. 1982 28 2 16 - 22

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DID YOU KNOW ?

EDUCATION ACT 1981

By January 1983, the remaining sections of the Act come into force dealing with procedures for assessments, statements of educational need and approval of special schools.

BABY BOUNCING CRADLES.

The Royal Society for the Prevention of Accidents estimates that about 700 babies are injured each year in England and Wales as a result of bouncing cradles falling from a height, off furniture upon which they have been placed. The Department of Trade Safety Research Section reports thirty three cases of injury where the baby fell out of a bouncing cradle placed on the floor. The Health Visitors Association has taken up the matter with the R.S.P.A. in the hope that manufacturers may be urged to include suitable warnings in user instructions about the dangers of leaving a child in a cradle without supervision.

RUBIK CUBE

The coloured panels on the cube contain ten times more lead than is permitted by regulations governing paint on children's toys. Because the lead is not in paint but in adhesive paper, no action can be taken but beware of the child who peels off the paper and eats it. Yellow is the most hazardous colour.

BRAINWAVE AWARDS

For teachers and those involved in Education, the Times Educational Supplement and Hestair Hope - an Educational Equipment Firm - are offering a competition, to stimulate ideas which will help with the education of young people. One of the categories is "Aids for Disabled People". Entry forms from: The Brainwave Awards 1982, The Marketing Dept., Hestair Hope Ltd., Freepost, St. Philips Drive, Royton, Oldham. OL2 6BR

NEW LEGISLATION - SEAT BELTS.

From January 3rd 1983 it will be compulsory for drivers and front seat passengers over the age of 14 to wear seat belts. Those with a disability which prevents them from wearing a belt may get a certificate of exemption from their G.P. The B.M.A. recommend a fee of £19 per application but G.P's may charge less at their discretion. Those in receipt of mobility allowance will be exempt from any charge.

SCOLIOSIS SELF HELP GROUP

This group which started last year produces a quarterly Newsletter. It aims to provide mutual advice and support for adults or children who are scoliosis sufferers. Contact: Mrs. A. Harrison or Miss S. Clark, 20 Prince Edward Mansions, Moscow Road, London, W2 4EN. Tel. 01 - 229 - 1674 or 01 - 289 - 1578

CYSTIC FIBROSIS RESEARCH TRUST

Charles Spottiswoode took over from Ron Tucker as executive director of the Trust in October.

PLAYAIDS EXHIBITION

This exhibition will visit the following venues, with toys for handicapped children -

Bordsley Centre, Camphill, Stratford Road, Birmingham. Mon. 29th Nov - Fri. 3rd Dec 1982

Sheffield Polytechnic, Brincliffe, Psalter Lane, Sheffield. Mon. 6th - Fri. 10th Dec. 1982

Scottish Health Services Centre, Crewe Road South, Edinburgh. Tues 14th - Sat 18th Dec. 1982

For further information please contact Ednie Wilson or Mick Lannen, The Handicapped Persons Research Unit, Newcastle upon Tyne, Polytechnic, No. 1 Coach Lane, Newcastle - upon- Tyne, NE7 7TW. Tel. 0632 - 664061

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FILMS AND T.V.

Mediscreen Productions Ltd., is a new consortium of voluntary organisations which has arranged to make four programmes on disability for the new channel 4, concerning access, education, community care and employment. For further information contact - Anne Dillon, Mediscreen, Brittanic House, Moor Lane, London EC2Y 9BO - Tel. 01 - 920 - 6241

Hello Baby

A 16 mm. film made for the Health Education Council by the staff of Northwick Park Hospital and six babies with their families. Developmental Stages from 0 to 20 months are covered. Available for hire free of charge from: Central Film Library, Government Building, Bromyard Avenue, London W2 7JB. Tel.01-743-555 or Concord Film Council Ltd., 201 Felixstowe Road, Ipswich., Suffolk. IP3 9BJ Tel. 0473-76012

National Children's Bureau Film Lists

Details of films and where to find them on the following subjects:-

Adolescence. Price 50p
Education 80p
Ethnic Minorities and Race Relations. 50p
Mental Handicap £1.00
Physical Handicap. £1.00
Pre-schooling 60p.

From: N.C.B., Information Service and Library, 5 Wakley Street, London EC1V 7QE

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A.P.C.P. NEWS.

Health Services Research Unit

The following papers are available from the above -

1. Preparing and writing a Research Proposal
2. Writing a Research Report.
3. Assessing Applicants for Research Grants.
4. Books and Articles which may be useful for people doing research.
5. Library Guide for Therapists
6. List of Journals in which therapists have published.
7. How to do a Literature Search.
8. Research Newsletter
9. Physiotherapy Bibliography.
10. Sources of information for Therapists (incorporating No. 7)

Copies may be obtained by writing to Mrs. Valerie Heap at Health Services Research Unit, The University, Cantebury, Kent. CT2 7NF. Please state clearly the numbers of the papers you want, and it would help if you could send stamps (not SAEs please) to the value of 12½p for any combination of Nos 1 -7, or 32p if Nos 8 and/or 9 are included in your request, plus an additional 20p for No. 10.

DHSS Meeting with Miss L. Dyer, Physiotherapy and Remedial Gymnastics Officer, Dr. V. Simmons (liaison with Dept. Education and Science), Dr. B. Ely (School Health) and Miss D. Learmont (Nursing).

Held on July 23rd at Hannibal House, the meeting provided a welcomed opportunity for an informal exchange of views on the role of APCP and the work of the paediatric physiotherapist in the home, the school and in hospital.

APCP was represented by Miss Dawson, Mrs Nicholls, Mrs. Whyte and Miss Carrington. The DHSS invitation was greatly appreciated.

National Committee Meeting. Hospital for Sick Children, Gt. Ormond Street. 16th Oct 1982

1. A working party of four members has been set up to look at the feasibility of producing a paediatric journal for APCP, rather than the present Newsletter format.
2. Post-Registration Education. Mrs. Eckersley reported on the outline plans of the N.W. working party on a Post-registration Introductory course in paediatric physiotherapy aimed at the basic grade/Senior II level therapist. The aim is to provide two separate long weekends of study plus a single week. Project work would be expected from participants. Funding details are not yet fully worked out.

3. Car Parking. Members were advised to obtain stickers direct from the C.S.P. which read "Physiotherapist on Home Visit". These do not give the therapist any legal rights however.

4. Membership 1983. Those who fail to pay subscriptions by March 31st 1983 will have their names removed from the register.

SUBSCRIPTIONS.

Subscriptions go up in January 1983 from £3. to £5. per annum. Many people will no doubt be asking why there has to be an increase. I hope the following breakdown of expenses for 1981 will help to answer some of your queries.

721 members paid subscriptions of £3. each. General running expenses totalled £2908.43p. This works out at £4. 03p per member broken down as follows:-

Travel expenses (committee meetings)	£1. 43
Postage	99
Printing and Stationery	98
Accountant	25
Honorarium	17
Kalamazoo system	15
Secretarial help	6
	£4. 03p

Profits from APCP run courses helped to keep us out of the red in 1981 but we obviously can't rely on this as a source of income. £2. was the minimum increase we felt able to levy. We can only hope that this will prove to be sufficient to cover general running expenses next year.

1982 Membership. Figures for July. 684 fully paid up members. We have 131 new members this year. There are 168 last year's members have not renewed subscription.

PLEASE would members paying by Standing Order inform their Banks of the increase in subscription (from £3. to £5) BEFORE JANUARY 1983

HONORARY MEMBERS. Nominations for honorary membership of APCP should be forwarded to the secretary, Mrs. P. Nicholls by Jan. 1st 1983 for consideration by the national committee. Background information regarding the reasons for the nomination should be included. Members are reminded that honorary membership is only awarded to those who have materially aided the work of APCP.

APCP. REGIONAL REPORTS.

Scotland. Reg. Rep. Miss M. Booth, MCSP, 210 Union Grove, Aberdeen, AB1 6SS

March 19th - 20th 1983. Halliwick Swimming Course arranged by Physiotherapy Department, Scottish Council for Spastics. The Physiotherapy staff will be assisted by Dr. Joan Martin who will present the Course lectures. Practical sessions in the pool with cerebral palsied children. 24 places only - details later. Contact: Superintendent Physiotherapist, Miss E. Bell, 5/6 Rillbank Terrace, Edinburgh. EH9 1LL

North West Reg. Rep. Mrs. M. Down, MCSP, 62 Swann Lane, Cheadlehulme, Stockport Cheshire SK8 7HU

A weekend course at the beginning of October on 'The Multiply Handicapped Child' at Brockhall Hospital was well attended by a variety of disciplines which gave a wider base for discussion. Further study days will be held after the National Conference.

NATIONAL CONFERENCE 1983 - "Use Your Head"

April 8th, 9th and 10th. LANCASTER

£56 Members. £60. Non-members. Contact Reg.Rep. for details.

Members 129. Paid up 89

North East. Reg. Rep Mrs. M. Soper, MCSP, 29 Garth Terrace, Burtonstone Lane, York. YO 3 6DJ

Wed. Dec. 1st 1982 "Parent Counselling". Ros Taylor, Principal Social Worker, St. James University Hospital, Leeds, Regional Child Development Centre, St. James' University Hospital, 7.30 p.m. for 8 p.m. Members 90p, Non-members £1. (inc.wine and mince pies).

Sat. Mar. 12th 1983. "Assessment of Cerebral Palsied Children" Sophie Levitt. John Jamieson P.H.School, Leeds. For further information on this day course contact the Reg. Rep.

Midlands & Trent. Reg. Rep. Miss R. Dawson, MCSP, 19 Main Street, East Bridgford Nottingham. NG 12 8PA

January 1983. Nottingham. 2 Films made by the Spastics Society. 'Priorities of Neo-natal Babies'. City Hospital, Nottingham. Post Graduate Medical Centre.

Sat. April 30th 1983. Derby/Chesterfield Area. 'Muscular Dystrophy' Day Course. Contact Reg. Rep. for details.

Wales. Reg. Rep. Mrs. W. Williams, MCSP, 12 Gellogaer Gardens, Cathays, Cardiff.

South East. Reg. Rep. Mrs. S. Raymond, MCSP, 58 Oakes Green Road, West Wickham, Kent.

Sat. Feb. 26th 1983. 'The Child with Perceptual Problems'. Day Course
Mrs. Nash-Wortham. Northwick Park Hospital.
Mrs. Lorraine Burr, Eastbourne (Author of 'Take Time') Brighton.
Contact Reg. Rep. for details.

South West. Reg. Rep. Miss T. James MCSP, 14 Frome Terrace, Dorchester, Dorset DT1 1JQ **
79 members
** Please note new address

Thurs. 4th November 1982. Study Day on Paediatric Spinal Problems.
a.m. Bristol Maternity Hospital.
p.m. Bristol Children's Hospital.
Speakers: Mr. G. Houghton, FRCS, Nuffield Orthopaedic Centre, Oxford.
Mr. D.H.R. Jenkins, FRCS, Orthopaedic Surgeon, University Hospital of Wales.
Details from Miss D. Nolan, Physiotherapy Department, Bristol Children's Hospital, St. Michael's Hill, Bristol.

East Anglia. Reg. Rep. Mrs. P.A.White, MCSP, 24 Maltings Drive, Wheathampstead, Herts.

March. Management of Scoliosis and Care After Surgery.
Harperbury Hospital, Radlett. Details will appear in the February Newsletter. Groups do meet informally throughout the region but we have no organised study days.

London. Reg. Rep. Miss G. Riley, MCSP, Superintendent Physiotherapist, Sheldon Children's Centre, Belgrave Hospital for Children, 1 Clapham Road, London, S W 9

Approximately 90 people attended the October meeting on Orthopaedics and the lower extremity. A Regional Newsletter is about to be formulated and will be circulated with the next National Newsletter. The Regional A.G.M. in Feb/March is being planned.

COURSES DIARY

INTERNATIONAL SOCIETY FOR PROSTHETICS AND ORTHOTICS

Mon. Dec 6th 1982. 'Advantages and Disadvantages of Modular and Direct Moulding of Orthoses'. Chairman: Mr. D. Holmes.

Mon. Jan 17th 1983. 'Management of the Short Leg'. Chairman: Mr. J.Florence.
'Leg lengthening Procedures.' Mr. P.Aichroth, Consultant Orthopaedic Surgeon.
'Ultra-lite extension prostheses.' Mr.S.Porter. Orthotist.
'Shoe Raises to accommodate shortening.' Mr. P. Shaw, F.R.I.S.T.

Mon. Feb 7th 1983. 'Alternative Treatments for the Management of Painful Amputation Stumps and Phantom Limbs'. Dr. Tidman, Queen Mary's Hospital, Roehampton.
Mr. Humphries, St. Georges Hospital, Tooting.
Miss Guymer, MCSP, Westminster Hospital.

Venue: Guys Hospital Medical School, London, SE1.
7 - 9 p.m. Anatomy Lecture Theatre.

DISABLED LIVING FOUNDATION

Held at: AIDS CENTRE, Disabled Living Foundation, 346 Kensington High Street, London, W14 8NS
Enquiries: 01-602-2491. Ext. 28. Courses are held on two dates for 25 delegates per day. Cost £17.00 per day.

13th or 14th Jan. 1983. 'Communication Aids'

10th, 11th or 14th March 1983. 'Hoists'

12th or 13th May. 'Personal Toilet and the problems of incontinence'.

14th or 15th June 'Children's Equipment'

LORD MAYOR TRELOAR COLLEGE

Mon. 21st Feb. 1983. 'Technical Aids for Disabled Children'.
Course Director: Roger Jefcoate.
Programme and application form on request from Mrs.J.H. Toleman, Lord Mayor Treloar College, Lower School, Froyle, Alton, Hants, GU34 4LA

NATIONAL CHILDREN'S HOME

Sat. 4th Dec. 1982. 'New Developments in Technology'.
Course Director: Roger Jefcoate.
Penhurst School, National Children's Home, Chipping Norton, OX7 5LN
Tel. 0608 2559

CASTLE PRIORY COLLEGE.

3rd - 5th Dec. 1982. 'Drama for the Disabled'. Tuition £32. Residence £33.

10th - 12th Dec. " 'Handicapped Children in the Asian Ethnic Minority Groups
Tuition £32. Residence £33.

4th -16th Jan. 1983. 'Revised Makaton Vocabulary for the Severely Retarded'.
Tuition £32. Residence £33.

17th - 29th Jan. 1983. 'The Young Visually Handicapped Child'. Tuition £43.
Residence £49-50.

Contact : The Principal, Castle Priory College, Thames Street, Wallingford, Oxon. OX10 OHE. Tel. 0491-37551.

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Rosaleen Little - AID IDEA.

Senior Physiotherapist
Martindale Medical Advisory Unit
Martindale School
Hounslow Middlesex

SOLVING A SEATING PROBLEM

CASE Twelve year old Spastic Quadraplegia with extensor spasms initiated often from the head. Windswept legs. Various contractures. Some head control and some voluntary head rotation.

PROBLEM How to obtain a stable sitting position to make use of voluntary head rotation to operate Possum controls.
Extensor spasms caused her to slide down chair away from Possum controls. Then pressure of head on back of chair initiates more extensor spasms.

SOLUTION Epicondylar pinning by use of knee restrainer as used in Flexistand. See illustration 1.

Illustration 1

A. Aluminium.

B. High Density Foam.

C. Measurement should be approximately half.

D. Two Pronged Plate.

The device is attached to the front of the Wheelchair by positioning the two pronged plate, D, onto the vertical bars of the Wheelchair. It is secured with the type of screw used to hold a tray in place.

Illustration 2

EFFECT

1. Stabilizes lower part of body throughout spasms enabling child to work on possum controls with voluntary head rotation without interruption.
2. For the younger child with threatening deformities, it encourages the retracted hip to be brought forwards, as the pinning is concentrated on the other leg.
3. It is a useful aid in treatment sessions in working for trunk and head control.

N.B. This type of pinning should not be used for too long a period, as movement and change of position is necessary with the C.P. child to reduce spasticity.

I am very fortunate to be working with a very outward going and enthusiastic team, but as we have no workshop to hand, it has been very difficult to get this simple device made and fitted. In fact it has taken Eighteen months through the

CONTD.

orthodox channels.
I would be very interested to hear from anyone who has overcome individual problems with seating and how they have managed to get the parts required made up. Sometimes it is the simplest idea that is most effective.

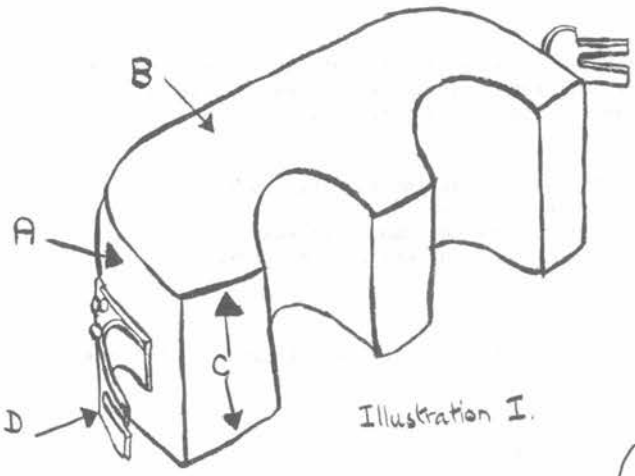

Illustration I.

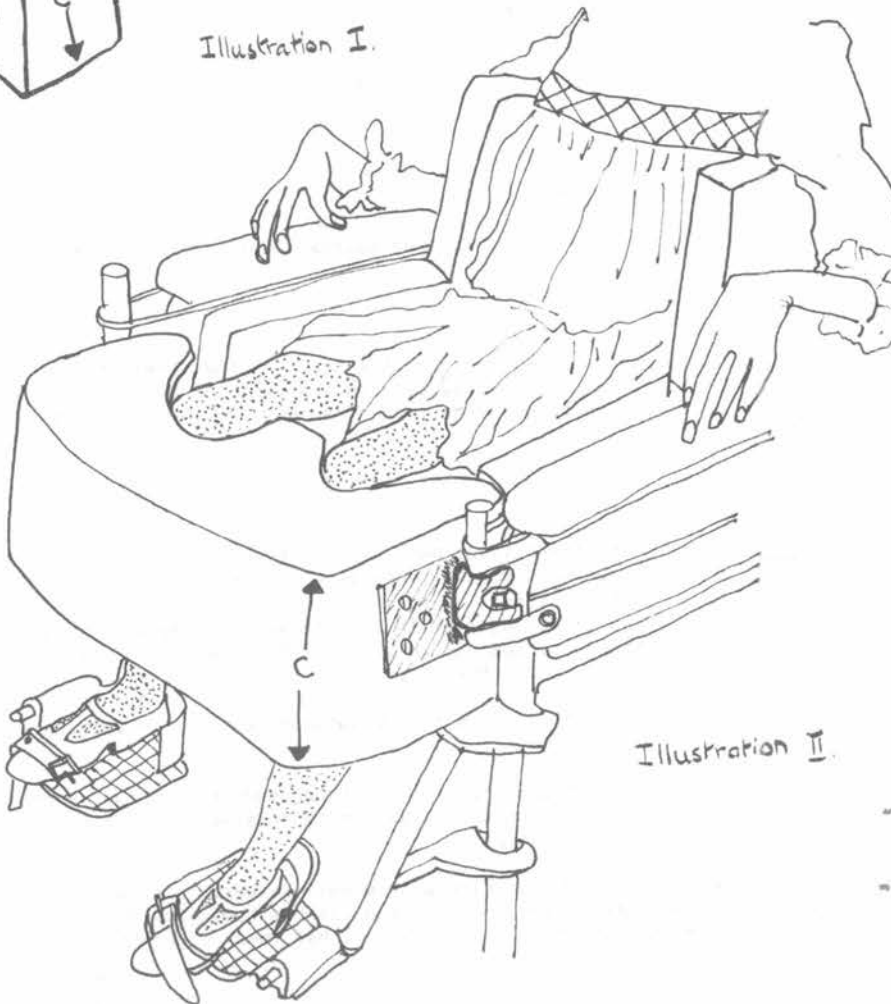

Illustration II.