Document type INFORMATION PAPER
Reference PA69
Issuing function PRACTICE AND DEVELOPMENT
Date of issue JANUARY 2007

Safe practice in rebound therapy

THE CHARTERED SOCIETY OF PHYSIOTHERAPY
14 Bedford Row, London WC1R 4ED, UK **www.csp.org.uk** Tel **+44 (0)20 7306 6666** Email **enquiries@csp.org.uk**

Safe practice in rebound therapy

Safe practice in rebound therapy

INTRODUCTION

1.1 This document has been written to provide information and advice on safe practice in rebound therapy, where the use of such is indicated following assessment.

1.2 This guidance is intended to be used by a physiotherapist after completion of a practical course in rebound therapy, or after gaining a portfolio of experience by working alongside an experienced practitioner.

1.3 This information paper does not override the responsibility of the physiotherapist to make appropriate decisions for individual service users, in consultation with them and/or their guardian or carer.

1.4 The information and advice provided here was arrived at after careful consideration of available evidence and should be used in conjunction with the Chartered Society of Physiotherapy Standards of Physiotherapy Practice (CSP 2005) and the Chartered Society of Physiotherapy Rules of Professional Conduct (CSP 2002).

1.5 The safety procedures in this information paper are based on a combination of the above, together with the experience of Chartered physiotherapists specialising in Adult Learning Disabilities, Paediatrics, Respiratory care, Neurology and Special Needs Trampoline Coaching.

1.6 Chartered physiotherapists need to ensure that any interventions provided will be clinically effective. Evidence of effectiveness can be drawn from research, expert opinion, practice and the experiences of both patients and professionals.

1.7 While it is important that the profession provides guidance, physiotherapists when implementing the advice, will also need to take account of local regulations, policies and procedures.

1.8 A bibliography is included; but it is important to note that it does **not** provide a comprehensive and systematic review of literature about rebound therapy. Such literature is limited and it is the responsibility of the user to keep up to date with the evidence to support practice.

1.9 While the information in this paper is relevant and accurate at the time of publication, readers and users of the materials will need to take

responsibility for identifying additional new information of relevance as it becomes available.

1.10 The authors and publisher disclaim responsibility for any adverse effects resulting directly or indirectly from the suggested information or advice, from any undetected errors or from the reader's misinterpretation of the text.

DEFINITION OF REBOUND THERAPY

2.1 Rebound therapy is the therapeutic use of the trampoline; it is distinct from gymnastic trampolining. The trampoline has long been used as a piece of equipment within sports and leisure services and has been used within Special Education since the 1970's, by Eddie Anderson MCSP, MSRG, Cert. Ed. initially at Two Dales School in Leeds, and who then as Headmaster of Springwell Special School in Hartlepool, completed the development of the use of the trampoline as a therapeutic tool with children with special needs. Subsequently it has become an adjunct to physiotherapy for adults as well.

2.2 Rebound therapy is currently used with people with a wide range of abilities from mild to profound physical and learning disability, sensory deficit, mental health needs and some neurological and other medical conditions. In addition to providing a physical therapy, Rebound therapy provides many people with a valuable opportunity to enjoy movement and interaction (Crampton 2002).

SCOPE OF PRACTICE

3.1 Physiotherapists should confine themselves to the use of therapeutic strategies which they are able to apply safely and competently (Rule 1, CSP 2002).

3.2 To ensure safe practice the physiotherapist should gain practical experience by attending a course in Rebound Therapy.

3.3 The individual physiotherapist is ultimately responsible for the assessment and treatment they deliver. Attention is drawn to Rule 4 of the Chartered Society of Physiotherapy Rules of Professional Conduct (CSP 2002), which relates to the responsibility of the physiotherapist for their intervention.

The physiotherapist has to decide whether the treatment is appropriate, and if in doubt, it is their responsibility to seek further professional/expert opinion before undertaking a treatment.

3.4 Before proceeding with the proposed treatment, the physiotherapist must ensure that the service user receives sufficient information, including risks, benefits and alternatives to allow them or their advocate/representative to make an informed decision.

3.5 Physiotherapists must maintain an adequate record of the treatment session including assessment, any tests carried out and their results, the clinical reasoning and the service user/representative interaction that led to the decision to undertake this treatment.

3.6 The individual delivering the treatment session should be aware of and comply with the safety issues highlighted in this information paper. It is the responsibility of that individual to ensure that all the formal safety checks have been carried out for the equipment they are using and they have a responsibility to ensure that a safety check programme is up to date and that a full risk assessment for any equipment has been undertaken.

3.7 It is the responsibility of the physiotherapist to ensure they are cognisant of and compliant with any and all relevant local and national health and safety policies and procedures.

CONSENT

4.1 Service users or their representative must have the capacity to give consent to treatment. They should be able to comprehend and retain material information, especially consequences, and be able to use and weigh information in decision-making. Information given by the physiotherapist should enable the service user/representative to make a balanced judgement, understand material or significant risks, and questions should be answered truthfully.

The Department of Health website www.dh.gov.uk/consent has the full text of all DH consent publications.
The Scottish Executive Health Division website www.sehd.scot.nhs.uk/ has guidance called "A Good Practice Guide on Consent for Health Professionals in NHSScotland" in relation to consent and The Adults with Incapacity (Scotland) Act 2000 and The Mental Health (Care and Treatment) (Scotland) Act 2003.

In Northern Ireland, The Department of Health, Social Services and Public Safety website http://www.dhsspsni.gov.uk/index/phealth/public_health_consent.htm. provides the consent guidance.
The Welsh Assembly Government http://www.wales.nhs.uk/ has issued "Good practice in consent implementation guide: consent to examination or treatment". However, it is important to note that this guidance will be revised to coincide with the Mental Capacity Act coming into force in 2007.
The CSP information paper on consent –PA60- is available on the website at www.csp.org.uk

4.2 Service users for whom rebound therapy is an intervention of choice may have multiple and alternative methods of communication of which the physiotherapist and all supporting staff should be aware.

4.3 In the management of individuals with learning disabilities, special circumstances surround communication of consent. It is the responsibility of the physiotherapist to be fully cognisant with the particular communication strategies that an individual service user may have developed. This may require asking an appropriate third party to interpret.

MONITORING PERFORMANCE

5.1 Clinical Audit

5.1.1 Routine clinical audit should include procedures that measure performance. It is the responsibility of the physiotherapist to ensure that a published, standardised, valid, reliable and responsive outcome measure is used to evaluate the change in health status following the intervention of rebound therapy.

5.1.2 In some circumstances appropriate outcome measures may be subjective rather than objective. For example, a subjective improvement in symmetry or relaxation of posture may be used, or a perceived increase in calmness. Such subjective measures are open to interpretation. It is the responsibility of the physiotherapist to ensure that a complete and accurate description of change is included into the treatment records.

5.2 Unexpected Effects

In addition it is the responsibility of the individual physiotherapist to report all unexpected effects of rebound therapy, both locally via the appropriate formal process and also to the professional body.

5.3 Record Keeping
Service user records are confidential and are retained in accordance with existing policies and current legislation.

DELEGATION OF TASKS TO PHYSIOTHERAPY ASSISTANTS AND OTHER SUPPORT WORKERS

6.1 The responsibility for the care of the service user remains with the physiotherapist, who will undertake the initial assessment and make the decision that rebound therapy is an appropriate intervention. The physiotherapist will identify exactly what this therapeutic intervention will involve and will document the programme.

6.2 The physiotherapist is responsible for the re-evaluation of the service user and has a responsibility for monitoring the activities of the assistant/support worker during the period of the therapeutic intervention. Tasks should be delegated in accordance with the Chartered Society of Physiotherapy Information paper PA 6 'The delegation of tasks to physiotherapy assistants and other support workers'.

6.3 The physiotherapist must ensure that in every case, the assistant/support worker has received adequate documented training on the relevant and specific apparatus. This will include the operation of the specific apparatus, safety procedures and information about potential dangers, risks and contra-indications to use. Equally the physiotherapy assistant/support worker should alert the physiotherapist if they feel their training is inadequate to allow safe application of rebound therapy.
The physiotherapist must maintain good communication lines with the manager of the support worker to ensure training and supervision are up to date.

SAFETY PROCEDURES

7.1 It is the responsibility of the physiotherapist to ensure that they are working within the Chartered Society of Physiotherapy Core Standards of Practice (CSP 2005). Attention is drawn to Core Standard 16 that

identifies patients are treated in an environment that is safe for patients, physiotherapists and carers; as such risk assessment must be implicit within the assessment process that concluded in identifying rebound therapy as a suitable intervention. Attention is also drawn to Core Standard 18 that identifies all equipment as safe, fit for purpose and ensure patient, carer and physiotherapist safety.

7.2 When using the trampoline it is the session leader who takes primary responsibility for safety of that session.

7.2 It is the responsibility of the physiotherapist or session leader to ensure that appropriate clothing is worn by all those involved in a rebound therapy session.

7.3 It is the responsibility of the physiotherapist to ensure he/she is competent in the use of rebound therapy and that all operators involved in a rebound therapy session have been trained by such a physiotherapist, and can demonstrate a satisfactory level of ability.

7.4 All spotters have training from a physiotherapist who is competent in rebound therapy or a British Gymnastic Association (B.G.A) coach, and must achieve a satisfactory standard as assessed by the physiotherapist responsible for rebound therapy session.

7.5 It is the responsibility of the physiotherapist or session leader to ensure adherence to safety standards at all times when using the trampoline for therapeutic activity.

7.6 The people working on the trampoline with the service user are the operators, delivering the treatment plan. This may be the physiotherapist or may be another individual with evidence of competence in rebound therapy who is delivering the treatment plan devised by the physiotherapist.

7.7 The physiotherapist or session leader supervising the session should ensure that:

- 7.7.1 The physiotherapist/operator, the service user or others involved are fit to participate in the session, taking account of recent illness or injury;
- 7.7.2 There is no jumping without correct footwear; trampoline shoes, socks with non-slip soles or cotton socks are worn to prevent slipping on a webbed bed; bare feet are preferable for a flat sheet bed;
- 7.7.3 Fingers are not placed through webbing or around springs;
- 7.7.4 There is no double bouncing between service user/operator or service user/service user;
- 7.7.5 There is no eating or drinking on the trampoline;

7.7.6 Account is taken of the physiological effects of bouncing on the cardiovascular system;

7.7.7 No jewellery, watches, chains or articles that could catch on the bed, or on the person are worn. Body piercing, including tongue studs, should be removed or taped over. Pockets should be emptied;

7.7.8 Long hair is tied back, nails are kept short;

7.7.9 Suitable loose clothes are worn, which will protect the skin, depending on the activity;

7.7.10 No new skills are attempted without assessing the readiness of the service user and without progressive practices;

7.7.11 All accidents are reported to the appropriate authority using local policies and procedures;

7.7.12 Operators and service users mount and dismount in sitting in the middle of the long side of the trampoline;

7.7.13 No one passes under the bed at any time. However, a team member may work to generate energy from under the bed as part of the treatment programme and under the instruction of the session leader;

7.7.14 No equipment is stored beneath the bed when it is in operation, including trampoline roller stands;

7.7.15 All people not actively involved on the trampoline or in spotting are kept away from the immediate area of the bed;

7.7.16 The risk assessment has identified the appropriate number of spotters are in place: -

If the operator or service user are lying or in sitting, there should be a minimum of 2 spotters, one on each long side of the trampoline. If either an operator or service user is standing or jumping there should be a minimum of 4 spotters, one on each side of the trampoline, or 2 end decks and 1 spotter on each of the long sides.

CARE FACTORS

8.1 In line with the Chartered Society of Physiotherapy Core Standards of Practice (CSP 2005) it is the responsibility of the physiotherapist to ensure he/she is aware of the precautions and absolute contra-indications to rebound therapy, and that appropriate assessment is undertaken. It is recommended that the physiotherapist undertake certain checks of self, other staff and service user for suitability for rebound therapy. If any of the

following are present, the physiotherapist will use his/her professional knowledge and judgement and seek appropriate advice and medical information in order to make an informed decision about modification of treatment:

- Cardiac or circulatory problems
- Downs Syndrome
- Respiratory problems
- Vertigo, blackouts or nausea
- Epilepsy
- Spinal cord or neck problems
- Spinal rodding
- Open wounds
- Any recent medical attention
- Brittle bones/osteoporosis
- Friction effects on the skin
- Unstable/hypermobile/painful joints
- Herniae
- Implant surgery (e.g. Baclofen pump)
- Prolapse
- Severe challenging behaviour
- Gastrostomy/colostomy
- Gastric reflux
- Stress Incontinence
- Joint replacement/Implant surgery

8.2 The following are absolute contra-indications to rebound therapy:
- Atlantoaxial instability
- Detaching retina
- Pregnancy

SAFETY – THE ENVIRONMENT

9.1 The environment should be suitable for the use of the trampoline and undertaking rebound therapy sessions. Specifically this means:

9.1.1 the trampoline should be sited away from overhead projections, walls or any protruding structure which may cause injury;

9.1.2 the immediate vicinity of the trampoline should be clear, however large pieces of equipment for moving and handling may remain in situ at the discretion of the physiotherapist or session leader;

9.1.3 light from the windows should not dazzle the operator, service user or spotters;

9.1.4 where the bed is being used for trampolining, a ceiling height of 4.87metres (16 feet) is required. If lower, the operator should remain in contact with the service user at all times and not bounce higher that 30 centimetres (1 foot). Where the bed is being used for Rebound, the safe ceiling height must be determined by the session leader within the risk assessment;

9.1.5 the session leader should be aware of other equipment in use in the area and it is the responsibility of the session leader to maintain the safety of all participants.

SAFETY – THE TRAMPOLINE

10.1 It is the responsibility of the physiotherapist to maintain close links with the authority responsible for the maintenance of the trampoline and any additional equipment such as hoists and ramps. It is the responsibility of the physiotherapist to check with the responsible authority that the trampoline is serviced annually and maintain records of the annual checks.

10.2 The trampoline should be chained or locked away in a folded position when not it use.

10.3 The trampoline must never be left unattended in an open position, unless the area can be secured.

10.4 The trampoline should be correctly and safely erected and folded; all operators involved in the sessions should be trained in safety aspects of erecting and folding the bed.

10.5 Erecting and folding the bed must be carried out under the direct supervision of the session leader; there should be at least 4 people to erect and fold the trampoline at all times.

10.6 Service users must be kept away from the area when erecting and folding the trampoline.

10.7 The roller stands should be removed and placed away from the trampoline, flat on the floor, with hooks facing down.

10.8 All operators must be competent in safe manual handling practice and understand moving and handling risk assessment.

10.9 If moving and handling equipment is available to lift the trampoline, it should be used.

10.10 Equipment should be checked for faults prior to each use. Specifically the following should be checked:

10.10.1 the roller stands, for freely revolving hooks, freely swivelling and running castors;

10.10.2 all Allan screws on the leg braces, chains and joints where applicable;

10.10.3 all frame pads are securely in place;

10.10.4 pads for the possibility of rips or tears, or loose or missing clips, or worn areas where little protection would be afforded anyone landing on that section;

10.10.5 the outer frame for wear at the hinges and bowing of the long side due to drooping ends;

10.10.6 the anchor bar on both the frame and bed for excessive wear from the hooks of the cables or springs;

10.10.7 the springs or cables to ensure they are all in place, with hooks facing downwards, a suitable tension and the same length;

10.10.8 for tears or thin areas on solid beds; breaks in webbing or stitches on webbed beds which might allow a toe or finger to catch and cause injury; uneven tension indicated by the red lines not being straight; worn or broken anchor bars around the edge of the bed;

10.10.9 the session leader must test the trampoline before the rebound therapy session begins;

10.10.10 all damage should be reported to the appropriate responsible authority. If necessary the trampoline should be taken out of service until it has been repaired and declared safe;

10.10.11 precautions are put in place to prevent contact of bodily fluid with the apparatus. If contaminated, the bed must be treated/cleaned in line with local Care of Substances Hazardous to Health (CoSHH) and infection control policies.

SAFETY – THE PHYSIOTHERAPIST

11.1 With reference to Rule 1 of the Chartered Society of Physiotherapy Rules of Professional Conduct (Section 3 this document refers), the physiotherapist has a responsibility to ensure an appropriate level of training and is skilled in a range of techniques relevant to rebound therapy. Specifically the physiotherapist should be able to demonstrate understanding of and competence in the following:

11.1.1 physical properties of the trampoline;

11.1.2 safety and precautions in use of the trampoline;
11.1.3 physiological effects of rebound therapy;
11.1.4 perceived therapeutic effects of rebound therapy;
11.1.5 contra-indications and care factors in use of the trampoline;
11.1.6 assessment of suitability of service user for rebound therapy;
11.1.7 safe and appropriate handling of the service user and any equipment used in rebound therapy;
11.1.8 personal trampolining skills such as stopping, bouncing, jumping, turns, star jump, tuck jump and straddle jump, pike jump and seat drop as appropriate;
11.1.9 rebound therapy skills, specifically:
- 11.1.9.1 getting on/off safely;
- 11.1.9.2 bouncing in a stable position;
- 11.1.9.3 killing (stopping) the bed;
- 11.1.9.4 damping the bed;
- 11.1.9.5 riding the bed;
- 11.1.9.6 stopping safely;
- 11.1.9.7 kipping;
- 11.1.9.8 popping;
- 11.1.9.8 the effective use of various therapeutic starting positions, care factors and appropriate implementation and progression.

UNADOPTED TERMINOLOGY

12.1 In any area of evolving practice, it is possible that from time to time new or different terminology may be introduced. The physiotherapist has a responsibility to ensure that for reasons of safety, there is a common understanding of all terminology used in and about rebound therapy in particular in the completion of treatment records.

GLOSSARY

13.1

Operator anyone other than the service user working on the bed.

Session leader	the person designated by the physiotherapist to have overall responsibility for the session.
Spotters	persons standing on the floor around the trampoline to prevent operators or service users from falling from the bed and to draw attention to any other safety issues.
Damping	the operator absorbs the energy from the bed to control the amount of energy in the bed.
Double bouncing	where two people on the trampoline jump alternately.
Killing/stopping	bringing the trampoline bed to a complete halt – taking the bed from dynamic movement to stillness.
Kipping/Popping	controlling the force of the trampoline - the transference of energy from the operator to service user through the bed to enable the service user to move.
Riding	Smoothing the bed to synchronic movement - the operator's feet remain in contact with the bed whilst the service user is bouncing or jumping.

BIBLIOGRAPHY

Association of Chartered Physiotherapists for People with Learning Disabilities: Rebound Therapy Working Party (1997) "ACPPLD Good Practice in Rebound Therapy."

Addy LM (Nov 1996) "A Multiprofessional Approach to the treatment of Developmental
Co-ordination Disorder" British Journal of Therapy and Rehabilitation Vol. 3 No 11.

Anderson E G and Knight L (1985) "Specific Designs in a Therapeutic Environment" Journal of the Society of Remedial Gymnastics and Recreational Therapy No 115 Pages 11-18.

Bhattacharya A, McCutcheon E R, Shvartz E and Greenleaf J E (1980) "Body Acceleration Distribution and 02 Uptake in humans during running and jumping" Journal of Applied Physiology Exercise Physiology 49 (5) Pages 881-887.

BTF The British Trampoline Federation Revised (1997) "Special Needs Trampolining Course Notes" Chapter 3 Code of Practice.

BTF The British Trampoline Federation Ltd (1995) "Special Needs Trampolining Course Notes" Chapter 10 Physiological Effects of Exercise, and Chapter 13 The Benefits of Trampolining.

Carter A E (1988) "The New Miracles of Rebound Exercise."

Crampton R (2002) [Interview with Adam Phillips] "The Pleasure Principal" London, The Times.

Farrow R (1995) "Rebound Therapy as a Method of Developing and Assessing Communication". In: Etheridge, D. E. (1995) Ed. The education of dual sensory impaired children: recognising and developing ability. London, D. Fulton.

Greaves A (1999) "An Investigation into the effect of Rebound Therapy on Windswept Deformity Sitting Ability and Bowel Function for an Adult with a Learning Disability - A Single Case Study."

Hartley E and Rushton C (1984) "The Therapeutic Use of the Trampoline in Inhibiting Abnormal Reflex Reactions and Facilitating Normal Patterns of Movements in some Cerebral Palsied Children" Journal of the Society of Remedial Gymnastics and Recreational Therapy No 113 Pages 6-11.

Jan, W. M., Kennedy, J. G., Dowling, F. E., Fogarty, E. and Moore, D. (2001) "Bilateral wrist dislocation in trisomy 21: A case report." Journal of Pediatric Orthopaedics Part B, 10(4), 349-351.

Mara L (2004) "A single subject study investigating whether the use of Rebound Therapy can improve the balance of a client with a mild Learning Disability and

Cerebral Palsy." BSc (Hons) Physiotherapy dissertation. Colchester Institute, Colchester.

Mead H (2003) "The Use of Rebound Therapy in Adult Learning Disabilities" (Project study) Abstract.

Rennie J (2001) "Learning disability: Physical therapy, treatment and management: a collaborative approach." London, Whurr Publishers.

Smith S and Cook D (1990) "A Study in the Use of Rebound Therapy for Adults with Special Needs" Physiotherapy Vol. 76 No 11 Pages 734-735.

Spurling E (2001) "The Provision and Perceived Benefit of Rebound Therapy in the United Kingdom." (Unpublished).

Watterson R and Delahunty M (2001/2) "A Pilot Study investigating the use of Rebound Therapy for clients with a Learning Disability."

CSP Information papers

PA6 The delegation of tasks to physiotherapy assistants and other support workers.
PA60 Consent.

CSP resources

Chartered Society of Physiotherapy (2001) Developing a portfolio; A guide for CSP Members

Chartered Society of Physiotherapy (2002) Rules of Professional Conduct

Chartered Society of Physiotherapy (2005) Standards of Physiotherapy Practice Pack

The CSP Rules of Professional Conduct and Standards Pack and the PA information papers are available from the Enquiry Handling Unit at the Chartered Society of Physiotherapy (020 7306 6666) or can be downloaded from http://www.csp.org.uk

Unpublished documents listed in the bibliography may be available from the CSP Library and Information Services via the Enquiry Handling Unit (020 7306 6666).

References Relating to atlantoaxial joint and Down syndrome:

Cremers, M. J., Bol, E., De Roos, F.and Van Gijn, J. (1993) "Risk of sports activities in children with Down's syndrome and atlantoaxial instability." Lancet, 342(8870), 511-4.

Down's Syndrome Association (Revised 2001) Atlanto-axial Instability among people with Down's Syndrome Notes for parents and carers Medical Series 3.

Gajdosik, C. G.and Ostertag, S. (1996) "Cervical instability and Down syndrome: Review of the literature and implications for physical therapists." Pediatric Physical Therapy, 8(1), 31-36.

Inamasu, J., Kim, D. H. and Klugh, A. (2005) "Posterior instrumentation surgery for cranio-cervical junction instabilities: An update." Neurologia Medico Chirurgica, 45(9), 439-447.

O'Connor, J. F., Cranley, W. R., McCarten, K. M. and Feingold, M. (1996) "Commentary: Atlantoaxial instability in Down syndrome: Reassessment by the Committee on Sports Medicine & Fitness of American Academy of Pediatrics." Pediatric Radiology, 26(10), 748-9.

Wallach, D. M. and Segal, L. S. (2002) "Nontraumatic atlantoaxial and occipitoatlantal instability in children." Current Opinion in Orthopaedics, 13(3), 238-243.

ACKNOWLEDGEMENTS

Grateful thanks to the following groups and individuals who worked together to produce this information paper:

Association of Chartered Physiotherapists for People with Learning Disabilities (ACPPLD)
Association of Chartered Physiotherapists in Neurology (ACPIN)
Association of Paediatric Chartered Physiotherapists (APCP)
Association of Chartered Physiotherapists in Respiratory Care (ACPRC)
Special Needs Trampoline Coaching.
Eddie Anderson

The Rebound Therapy Working Party:

Debbi Cook - South Derbyshire Community Learning Disability Team, South Derbyshire Mental Health Trust.
Helen Dabbs - Children's Therapy Team, Mansfield PCT, Nottinghamshire.
Elissa Hough - Community Adult Learning Disability Team, Milton Keynes NHS Trust, Buckinghamshire.
Sally Smith - Community Adult Learning Disability Team, Nottinghamshire Healthcare NHS Trust.
Nikki Wright - Nottingham Community Paediatric Physiotherapy Team, Broxtowe and Hucknall PCT, Nottinghamshire.