

Pressure Sores

People with multiple sclerosis, particularly those with more complex difficulties can be at risk from developing pressure sores (pressure ulcers or decubitus ulcers). The prevention and / or early treatment of this condition is vitally important to ensure correct preventative care, early detection and prompt treatment. NICE guidelines¹ recommend that people who use a wheelchair should be assessed for their risk of developing a pressure ulcer.

Definition

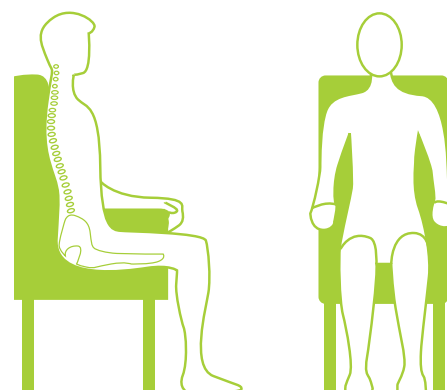
Definitions of pressure sores are plentiful, the main variance lying with a dispute about whether unbroken but damaged skin constitutes a pressure sore. It is now widely accepted that skin, which is subject to friction, to pressure perhaps from prolonged sitting in one position or to extreme forces (shearing), and which is reddened or discoloured, is a pressure sore.

- ▶ Damage to the skin caused by pressure, shear or friction or a combination of any of these².
- ▶ A new or established area of skin and /or tissue discoloration or damage which persists after the removal of pressure and which is likely to be due to the effect of pressure on the tissues³.

Causes

Pressure sores are thought to be caused by a combination of variable factors including:

- ▶ Pressure in the seated position for example is caused by the downward forces of the body weight that compress the soft tissues of the buttocks against the sitting surface. This in turn occludes the delicate blood capillary network, which supplies the soft tissues. Pressure is at its greatest in the area near bone, particularly the ischial tuberosities (see diagram) where pressure is known to be three to five times as great as that on surrounding tissues⁴.



- ▶ Shearing forces occur internally as the skeleton moves against other internal structures. During this process the blood capillaries become distorted, damaged or occluded leading to skin ischemia (deprivation of blood) and pressure sores can develop. A common way of inducing shearing forces is sliding and struggling to transfer from a chair to a bed.
- ▶ Friction is described as the process of whole body movement against an unmoving surface. The distinction lies in that damage by friction causes visual damage to the surface of the skin, which may be more superficial in nature if recognised and treated early. An example of this is slipping down against sheets while sitting up in bed.

Symptoms, effects and management

- ▶ Other risk factors are poor diet, deviation from normal body weight, acute illness perhaps with a fever, and exposure of the skin to urine and or faeces for prolonged periods of time. People who are underweight are at increased risk as they have less cushioning to protect them. It is possible that being overweight may also increase risk due to additional problems that may be posed in terms of safe movement / transferring. A poor diet increases the risk because our bodies require a good intake of protein to keep them healthy and prevent cell breakdown⁵. Incontinence can damage the skin if it is not cleaned and dried thoroughly.

Implications

When discussing pressure sores it is important to focus on prevention, with the full knowledge of the implications of failure to prevent⁶. The cost of pressure sores is high in both human and financial terms. "A pressure sore can cause pain, systemic illness, reduced self-esteem, altered body image and can sufficiently delay rehabilitation measures to preclude return to independence"⁷. In a recent study it was found that ten regular wheelchair users with pressure sores spent 1231 days or 3.37 years in hospital for ongoing treatment of pressure sores^{8,9}.

Prevention

Prevention of this condition has long been a challenge to the individuals at risk, their carers and health professionals¹⁰.

The chart below has been found useful in helping to identify people at risk and the early warning signs of pressure sores. With proper management, pressure sores are demonstrably preventable.

Prevention of pressure sores is better than cure

Warning signs:

- ▶ Are you eating or drinking less than usual?
- ▶ Is moving becoming more difficult?
- ▶ Is your skin regularly exposed to moisture?
- ▶ Is your skin prone to being very dry, sore or red?
- ▶ Have you been ill recently?
- ▶ Have you lost or gained a lot of weight recently?

Reduce Pressure	When possible alter position even slightly every 20 minutes during the day. If seated this could take the form of rolling slightly from cheek to cheek in the chair
Appropriate equipment Cushions & mattresses	This includes: bed, armchair, wheelchair, car seat, office chairs, all equipment when on holiday, hospital or away from home for any reason. Seek advice from a District Nurse or Occupational Therapist
Nutrition	Eat a well balanced diet. Advice and diet sheets can be obtained from a dietician. Remember even a short period of not eating well increases the risk of skin damage particularly if you are unwell with flu for example
Hygiene and skin care	Routine care of skin to keep clean and fresh. Avoid allowing skin to be wet. Check for red patches on the skin routinely. Reddened areas should fade quickly when pressure is relieved. If they do not, seek advice from a District Nurse
Transferring	Obtain good instruction and support in transfer techniques and correct use of equipment. Avoid sliding and pushing
Positioning	Learn correct positioning for comfort and pressure relief. Understand the importance of ensuring correct positioning particularly when seated

References

1. National Institute for Clinical Excellence. Multiple Sclerosis – Management of multiple sclerosis in primary and secondary care. NICE Clinical Guideline 8. London: NICE; 2003
2. Dealey C. The size of the pressure-sore problem in a teaching hospital. *J Adv Nurs* 1991;16(6): 663-70.
3. Department of Health. Pressure sores: a quality indicator: a guide for NHS purchasers and providers. London: Department of Health; 1993.
4. McClement E. Pressure sores. *Nurs Times* 1984; 2 (21) suppl 1-3, 6.
5. Bistran BR, Blackburn GL, Hallowell E, Heddle R. Protein status of general surgical patients. *JAMA* 1974; 230(6):858-60.
6. Hamilton F. An analysis of the literature pertaining to pressure sore risk assessment scales. *J Clin Nurs* 1992;1(4):185-93.
7. Clay M. Pressure sore prevention in nursing homes. *Nurs Stand* 2000;14(44):45-50,52,54.
8. Wall J. Preventing pressure sores among wheelchair users. *Prof Nurs* 2000;15(5):321-4.
9. Wall J, Colley T. Preventing pressure sores among wheelchair users: preliminary comments on the development of a self-administered risk assessment tool. *J Tissue Viab* 2003;13(2):48-60.
10. National Institute for Clinical Excellence. Working together to prevent pressure ulcers - Guidance for patients and carers. London:NICE;2001.

Bibliography

- National Institute for Clinical Excellence. Pressure ulcer prevention. Pressure ulcer risk assessment and prevention, including the use of pressure relieving devices (beds, mattresses and overlays) for the prevention of pressure ulcers in primary and secondary care. NICE Clinical Guideline 7. London: NICE;2003.
- National Institute for Health and Clinical Excellence, National Collaborating centre for nursing and supportive care. The Management of pressure ulcers in primary and secondary care. NICE Clinical Guideline 29. London:NICE;2005.
- Royal College of Nursing. Pressure ulcer risk assessment and prevention. London: RCN;2001.

Further Reading Publications from the MS Trust*

► For people with MS

MS: what does it mean for me? - For people newly diagnosed with MS, a practical introduction to MS to help answer questions at a time of uncertainty.

MS together - A DVD that offers clear and concise information on MS.

Disease modifying drug therapies - A general guide to people with MS that covers disease modifying drug therapies licensed for use in the UK.

At work with MS: managing life and work - Elements that make for a successful working life when someone has MS and considers the support available to both the person with MS and the employer.

Living with fatigue - Offers advice on how to live with fatigue, one of the commonest symptoms of MS.

MS Explained - A guide to the mechanisms of the disease.

Sexuality and MS - a guide for women - Explains how MS can impact on sexuality and intimacy and offers positive practical solutions.

Young person's guide to MS - For young people aged 10-15 who have a parent with MS.

Exercises for people with MS - Exercises from a senior physiotherapist illustrated throughout by easy to follow diagrams and on DVD in **Move it for MS**.

Move it for MS - A DVD of exercises for people with MS.

Factsheets covering a wide range of symptoms and therapies - for further details and to order any of the publications contact the MS Trust Information team 01476 476 700 email infoteam@mstrust.org.uk.

► For health and social care professionals

Spasticity care pathway - The role of the nurse in the management of spasticity

Therapists in MS: delivering the long-term solutions

Comprehensive resources are available to download from our website www.mstrust.org.uk.

* As of November 2007

Publications

We hope that you have found this information helpful. The MS Trust offers a wide range of publications, including our quarterly newsletter Way Ahead and the MS Information Update. These provide details of latest developments and recently published papers in the field of MS. Our website is regularly updated www.mstrust.org.uk

Contact us to receive our newsletter or to request another publication. All our services are free within the UK.

MS Trust Information Service

The MS Trust Information Service is here to answer YOUR questions about MS. To contact us you can:



phone

01462 476700 (Lines are open Monday – Friday 9am-5pm)



email

infoteam@mstrust.org.uk



write

MS Trust, Spirella Building,
Letchworth Garden City, Herts, SG6 4ET

Publications

We hope that you have found this information helpful. The MS Trust offers a wide range of publications, including our quarterly newsletter Way Ahead and the MS Information Update. These provide details of latest developments and recently published papers in the field of MS.

All our services are free within the UK.

Contact us to receive our newsletter or to request another publication.

MS Trust Information Service

The MS Trust Information Service is here to answer any questions that YOU or the people who have MS that you work with may have about MS. To contact us you can:



Phone

01462 476 700

(lines are open Monday to Friday 9am to 5pm)



Email

infoteam@mstrust.org.uk



Write

MS Trust
Spirella Building
Letchworth Garden City
Herts
SG6 4ET

Published in the United Kingdom by

MS Trust,
Spirella Building, Bridge Road,
Letchworth Garden City,
SG6 4ET

Tel: 01462 476700

Email: info@mstrust.org.uk
Website: www.mstrust.org.uk

Registered charity no 1088353
© 2007 Multiple Sclerosis Trust

MS Trust
Multiple sclerosis information for Health and
Social Care Professionals
ISBN 1-904156-14-2
© 2007 Multiple Sclerosis Trust

Published: November 2007

All rights reserved. No part of this book may be reproduced, stored in a retrieval system of transmitted in any form by any means, electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise without the written permission of the publisher.