

**FDA/CPSC Public Health Advisory:
Hazards Associated with the Use of Electric
Heating Pads**

(We encourage you to copy and distribute this Advisory.)

December 12, 1995

To: Safety Directors	Risk Managers
Biomedical/Clinical Engineers	Nursing Homes
Directors of Nursing	Hospices
Hospital Administrators	Home Healthcare Agencies

The Food and Drug Administration (FDA) and the Consumer Product Safety Commission (CPSC) have received many reports of injury and death from burns, electric shocks, and fires associated with the use of electric heating pads. These incidents have occurred in nursing homes, hospitals, and at home. In most cases, they could have been avoided by careful inspection and proper use of the heating pad.

Every year, the CPSC receives an average of eight death reports associated with the use of heating pads.¹ Most deaths are caused by heating pad fires and involve persons over the age of 65. Heating pad fires can occur when broken or worn insulation of the electric wires in the heating pad causes the pad to ignite or when electrical cords are cracked or frayed.

CPSC estimates that more than 1,600 heating pad burns are treated each year in hospital emergency rooms.² Most injuries are direct thermal burns not caused by fire. About 45 percent of those injured are over the age of 65.

An electric heating pad is usually regarded as a relatively "safe" household product commonly used to treat sore muscles or joints; however, it can cause harm if not used properly. A heating pad can be dangerous for patients with decreased temperature sensation, diabetes, spinal cord injuries, patients who have suffered a stroke, patients taking medication for pain or sleeplessness or those who have been drinking alcohol. Prolonged use on one area of the body can cause a severe burn, even when the heating pad is at a low temperature setting.³

FDA recognizes that most hospitals today use a circulating hot water pad or a hypo/hyperthermia machine on patients who require such heat therapy. The temperature of these devices is thermostatically controlled, allowing them to be used more safely on a sleeping or unconscious patient when properly supervised by a health professional.

Individuals at particular risk for electric heating pad injuries are:

Infants, since the heating pad would cover a large area of their small bodies. In addition, they may be unable to move when burned.

Persons who may be unable to feel pain to the skin because of advanced age, diabetes, spinal cord injury, or medication.

FDA and CPSC recommend the following precautions be taken to avoid hazards associated with the use of electric heating pads:

ALWAYS --

- Inspect heating pad before each use to assure it is in proper working order; discard it if it looks worn or cracked or if the electrical cord is frayed.
- Keep removable cover on pad during use.
- Place heating pad on top of, and not underneath of, the body part in need of heat. (The temperature of a heating pad increases if heat is trapped.)
- Unplug heating pad when not in use.
- Read and follow all manufacturer's instructions on heating pad or on outside package prior to use.

NEVER --

- Use on an infant.
- Use on a person who is paralyzed or has skin that is not sensitive to temperature changes.
- Use on a sleeping or unconscious person.
- Use in an oxygen enriched environment or near equipment that stores or emits oxygen.
- Sit on or against a heating pad.
- Crush or fold a heating pad during use or during storage.
- Unplug heating pad by pulling its connecting cord.
- Use pins or other metallic fasteners to hold heating pad in place.

The Safe Medical Devices Act of 1990 (SMDA) requires hospitals and other user facilities to report deaths, serious illnesses, and injuries associated with the use of medical devices. The procedures established by your facility for such mandatory reporting should be followed. Practitioners who become aware of any medical device related adverse event or product problem/malfunction should report to their Medical Device User Facility Reporting person.

Even if an incident is not required to be reported under the SMDA, it would be helpful to report directly to MedWatch, the FDA's voluntary reporting program. Submit these reports to MedWatch: by phone, at 1-800-FDA-1088, by FAX at 1-800-FDA-1978, or mail to:

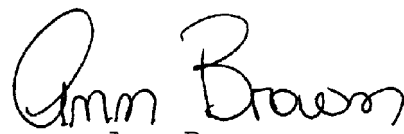
MedWatch
Food and Drug Administration
HF-2
5600 Fishers Lane
Rockville, MD 20857.

In addition, injuries from heating pads can be reported to the CPSC Hotline at 1-800-638-2772.

If you have any questions with regard to this Advisory, please contact, Joan M. Rudick, Office of Surveillance and Biometrics, CDRH, FDA, HFZ-510, 1350 Piccard Drive, Rockville, MD 20850, or FAX at 301-594-2968.

Sincerely yours,

D. Bruce Burlington, M.D.
Director
Center for Devices and
Radiological Health



Ann Brown
Chairman
Consumer Product Safety
Commission

¹ Consumer Product Safety Commission, Death Certificate File and Injury or Potential Injury File.

² Consumer Product Safety Commission, National Electronic Injury Surveillance System (NEISS).

³ Bill, T.J., Edlich, R.F., Himel, H.N. Electric heating pad burns. J Emergency Med 1994, 12:819-824.