

## **Background information: The application of heat**

### **Facts & Figures**

Research commissioned by the British Chiropractic Association has revealed that over **1 in 3 people** in the UK are currently suffering from back pain.

This extensive research into the growing epidemic has revealed just how debilitating back can be. **A staggering 36% of sufferers have been in pain for more than 10 years and a further 12% for 'as long as they can remember'**. The pain can prevent individuals carrying out day-to-day activities that most of us take for granted: simple things like sleep, exercise or even lifting children becomes impossible.

**Source:** British Chiropractic Association ([www.chiropractic-uk.co.uk](http://www.chiropractic-uk.co.uk))

It is estimated that up to four out of five people (80%) will experience back pain lasting more than a day at some time during their life.

**Source:** A. Maniadakis, A. Gray, 'The economic burden of back pain in the UK' (2000)

### **Heat Therapy**

Heat is generally used for chronic injuries or injuries that have no inflammation. **Sore, stiff, nagging muscle or joint pain is ideal for the use of heat therapy.** Athletes with chronic pain or injuries may use heat therapy *before* exercise to increase the elasticity of joint connective tissues and to stimulate blood flow. Heat can also help relax tight or spasmed muscles. Do not apply heat after exercise.

Because heat increases circulation and raises skin temperature you should not apply heat to acute injuries or injuries that show signs of inflammation. Safely apply heat to an injury 15 to 20 minutes at a time and use enough layers between your skin and the heating source to prevent burns. Specialty hot packs can be purchased or **you may use a heating pad.**

Because some injuries can be serious, you should see your doctor if your injury does not improve or gets worse within 48 hours.

**Source:** Elizabeth Quinn Exercise physiologist  
([www.sportsmedicine.about.com/cs/rehab/a/heatorcold.htm](http://www.sportsmedicine.about.com/cs/rehab/a/heatorcold.htm))

While the overall qualities of warmth and heat have long been associated with comfort and relaxation, **heat therapy goes a step further and can provide both**

**pain relief and healing benefits for many types of lower back pain.** In addition, heat therapy for lower back pain—in the form of heating pads, heat wraps, hot baths etc.—is both inexpensive and easy to do.

Muscle spasm in the lower back can create sensations that may range from mild discomfort to excruciating lower back pain. **Heat therapy can help relieve pain from the muscle spasm and related tightness in the lower back.**

There are **several significant benefits of heat therapy** that make it so appealing. Compared to most therapies, heat therapy is quite inexpensive. Heat therapy is also easy to do - it can be done at home while relaxing, and portable heat wraps also make it an option while at work or in the car.

For many people, **heat therapy works best when combined with other treatment, such as physical therapy and exercise.** Relative to most medical treatments available, **heat therapy is appealing to many people because it is a non-invasive and non-pharmaceutical form of lower back pain relief.**

The most effective heat therapy products are the ones that can maintain their heat at the proper temperature. "Warm" is the proper temperature. **The desired effect is for the heat to penetrate down into the muscles.**

There are many different manners for heat to be applied to the lower back. Some common options include:

- Hot water bottle - tends to stay warm for 20 to 30 minutes.
- Electric heating pad - maintains a constant level of heat as long as it is plugged in.
- **Heat wraps - wraps around the lower back and waist and may be worn against the skin under clothing, providing convenience and several hours of low level of heat application.**
- Hot bath, hot tub, sauna, steam bath - tend to stimulate general feelings of comfort and relaxation that may help reduce muscle spasm and pain. A whirlpool jet directed at the lower back may provide the added benefit of a light massage.

In summary, **heat therapy is an easy and inexpensive option to provide relief from many forms of lower back pain.** It may be used alone or in conjunction with other therapies. Because it is so simple, it is often overlooked and physicians may forget to mention it, but heat therapy used in the right way can be a valuable part of many lower back pain treatment programs.

**Source :** *By: Vert Mooney, MD - Orthopaedic Surgeon - Spine Surgeon, Clinical Professor of Orthopaedics, University of California at San Diego (2003)*