

# Burn Injury Due to Hot Water Bottle

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## ABSTRACT

Hot water bottles, generally used to comfort and relief from aches and pains. We present a case of scald burn caused by hot water bottle. The circumstances of this injury and preventive measures are discussed in this case report.

**Keywords:** Perianal Burn, Car Seat, Contact Burn, Gluteal Burn

## 1. Introduction

The hot water bottle is fabulous to use for relief of joint discomfort, pains, muscular tension, stress or cramps, aches, menstrual period pain and generally for the initial heating of cold bedsheets [1]. The therapy effect of hot water bottle has been known since the 16th century, and it is still used today for many alternative medicine. Although the hot water bottle offers comfort during the symptomatic treatment of disorders, this therapy method has scald burn injury risk for patient. To our knowledge, up to now, despite its widespread use, only one burn injury have been reported in the literature [1-3].

## 2. Case Report

We would like to report a case of a 27-year-old man who suffered second and third degree burn to his posterior side of trunk, right thigh and right gluteal region (**Figure 1**). The patient told us that he has lumbar disc herniation and he was used hot water bottle to reveal severe back pain. However, the patient suffered second and third degree burn injury as the result of tear of hot water bottle (**Figure 2**). Burn areas were dressed every day. Suitable antibiotic therapy was begun with the consultation of the infectious disease department. The burn area was treated conservatively within six weeks without any surgery.

## 3. Discussion

Back pain has always been a problem for a number of people; most of the people suffer from this condition at some point of their life. Some patients when they suffered from aches or pains don't want to use the painkillers

or ointments to deal with them because of the side-effects of drugs or allergic to their ingredients. In fact, allergies to anti-inflammatory painkillers is far more common.



**Figure 1.** The second and third degree burn areas due to tearing of hot water bottle.



**Figure 2.** The appearance of the teared hot water bottle.

Heat is one of the best way to get relief from the pain. They may be used for aches and pain, menstrual cramps. Hot water bottles may be molded while sitting or lying and in any position and provide heat to the area which, alleviates the pain. Hot water bottles have been used for centuries. Hot water bottles are large rubber bottles “flattened” into an oval shape with a stopper on top that may be removed to fill them with hot water. The earliest hot water bottles were metal containers filled with hot coals. Modern day, hot water bottles are manufactured in rubber or similar material. The surface temperature of the hot water bottle is maintained at maximum 50°, according to the manufacturers. Severe burns may also occur slowly if a hot water bottle leave on one part of body for more than 15 minutes [1-3].

These burns are preventable and therefore, some basic measures may reduce the incidence of accidental burn injury due to heated hot water bottles.

1) The hot water bottle manufacturers have to post warnings in their owner’s manuals of the danger of potential burns. The hot water bottles should be tested to increase their safety.

2) The hot water bottle should be examined for any damage, such as splits, holes or leaks before using. The hot water bottles should not be filled with boiling water, because boiling water may cause splits or leaks and will shorten the life of the hot water bottle.

3) The hot water bottle should not be overfilled. Three quarters is the maximum level to fill. A hot water bottle gives out plenty of heat as well when filled to the correct

level.

4) The hot water bottles have to wrap in a towel to prevent the bottle being in direct contact with the skin especially for patients with sensory deficits.

5) The hot water bottle should exchange every one or two years because the bottles which are in good condition on the outside may be damaged on the inside.

6) The hot water bottle should only use to warm the bed. The bottle should remove before get into bed and empty it or place it out of reach. It should not use in a bed fitted with an electric blanket. The patients should not lean on, roll on, press against or lie on a hot water bottle.

We hope that this case report will succeed in raising awareness of the dangers involved in the hot water bottles.

## REFERENCES

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