

Application as originally filed on 28 August 2025. No priority claimed.

Description

5 The present invention relates to hydrocolloid plasters.

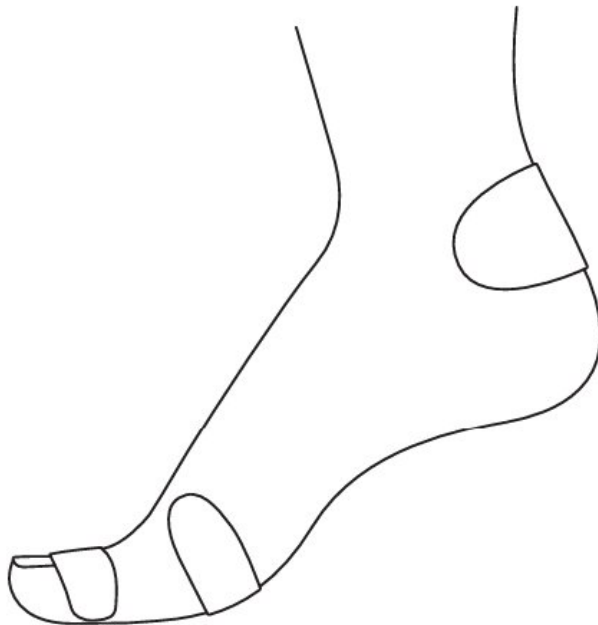
Blisters can develop on the skin due to friction, for example when shoes rub on parts of the foot when running or walking. Hydrocolloid plasters can be used to aid the healing of blisters and prevent infection.

10

When applied, the hydrocolloid plaster absorbs the fluid inside the blister. It also seals the blister, forming a protective barrier and keeping the wound clean.

15

The plaster may be shaped for better adhesion to a part of the body, for example to fit on the heel, toes or sole of the foot.



20 **Figure 1: hydrocolloid plasters on a foot**

The term “plaster” is used herein to describe an adhesive, protective covering (such as a sticker or patch) that is applied to skin and can be used as a dressing to treat wounds or skin conditions such as blisters, minor burns, corns, calluses, or acne.

- 5 The plaster comprises a carrier film. The carrier film forms a seal that keeps the wound clean and free of infection.

- The plaster further comprises a hydrocolloid layer on the carrier film. The term “hydrocolloid” refers to a material that forms a gel when it mixes with water. The
10 resulting gel creates a moist environment that supports healing. The hydrocolloid layer adheres firmly to the skin without the need for additional adhesive.

The hydrocolloid is typically CMC (carboxymethyl cellulose).

- 15 In some embodiments, the hydrocolloid layer comprises pectin. When pectin is used in the hydrocolloid layer, it provides structural support for cell and tissue regrowth and therefore speeds up wound healing time. In a preferred embodiment, the hydrocolloid layer comprises CMC and at least 10% weight/weight (w/w) pectin.

- 20 The hydrocolloid layer may further contain an antibacterial agent. Surprisingly, we have found that addition of salicylic acid to the hydrocolloid layer reduces the likelihood of bacterial infection. Accordingly, in one embodiment of the invention the hydrocolloid layer comprises from 0.5 to 1.5% (w/w) salicylic acid.

Prior art

D1 – product information for SILLYSALLY® pimple patches (published 10 March 2023)

5

Our best-selling hydrocolloid pimple patches form a protective seal over spots and visibly improve their appearance. A hydrocolloid is a substance used in surgical dressings that's clinically proven to help heal spots by absorbing bacteria and fluid. Strong but gentle adhesion means that our patches remain sealed to your skin, wherever you apply them. Our patches are infused with antibacterial salicylic acid in the hydrocolloid layer to instantly target your blemishes and emerging spots.

10

Ingredients: carrier film, CMC and 1% (w/w) salicylic acid.

D2 – extract from a textbook (published 20 August 2005)

15

Originally derived from the willow tree, salicylic acid is the starting material for the manufacture of aspirin. Salicylic acid can also be used to break down skin cells. This makes it an effective treatment for corns and calluses, where a small area of skin has become thickened due to pressure, often on toes or the sole of the foot. Corn removal plasters usually contain from 0.5 to 1.5% (w/w) salicylic acid together with a hydrocolloid, which provides protection from rubbing and pressure.

20

D3 – extract from a recipe book (published 6 November 1984)

Pectin is a natural gelling agent found in ripe fruit and is an important ingredient in making jams and jellies. It is easy to buy in the form of a liquid extract or powder.

Pectin forms a gel when it mixes with water. You can make jam very easily by mixing fruit with water, sugar and pectin and boiling until it sets. To test whether the jam is set, place a spoonful on a plate or on a piece of cling film, and leave to cool for a few minutes before touching its surface. If wrinkles appear on the surface, the jam has reached setting point.

30