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The thermoplastic splint
(A simple effective alternative to Plaster of Paris in the fixation of nasal fractures)

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Introduction

The application of plaster of Paris is the traditional method used for nasal fixation of fractures and following rhinoplasty. It is frequently time-consuming and messy. The result varies from an ill-fitting monstrosity to a skilful sculptured work of art. However, on review in Out Patients, the end result is the same—an ill-fitting, stained, crumbling cast which the patient often finds unacceptable. Such are the disadvantages that some surgeons avoid plastering of nasal fractures in all but exceptional circumstances. The reapplication of the plaster of Paris splint in Out Patients following the reduction of post-operative swelling is rarely performed. Alternatives such as metal splints have been designed but these are not re-usable and do not effectively mould to the nasal contour, and in most cases they are prohibitably expensive.

An alternative must be cheap, simple and fast to apply, and must provide reliable fixation which can subsequently be re-moulded to the nasal contour in Out Patients with a minimum of fuss. It must also be acceptable to the patient, and light and comfortable as well as water-and stain-resistant.

We report such a material which answers all the above criteria and we believe it to be a reliable and effective alternative to plaster of Paris.

Method and materials

The material used is a hypoallogenic thermolabile plastic which has previously been used for moulding physiotherapy splints. These splints are produced in three pre-cut sizes which may be modified, when heated, to individual nasal contours (Fig. 1). The splint is immersed under a hot water tap (77°) for a few minutes until pliable. As the splint is a poor retainer of heat, the splint may be applied to the patient almost immediately without fear of thermal injury. It is then moulded to the patient's nasal contour, and cold swabs are applied until the thermoplastic splint has hardened. The whole procedure takes two to three minutes and is free from the inconvenience associated with plastering and the risk of conjunctivitis due to plaster of Paris debris.

On review in Out Patients, the thermoplastic splint is removed, re-warmed and re-moulded to the nasal contour. On final review, the splint may be cleaned and re-used. Thus, we believe that this thermoplastic splint is a reliable alternative with many advantages and none of the disadvantages of plaster of Paris.

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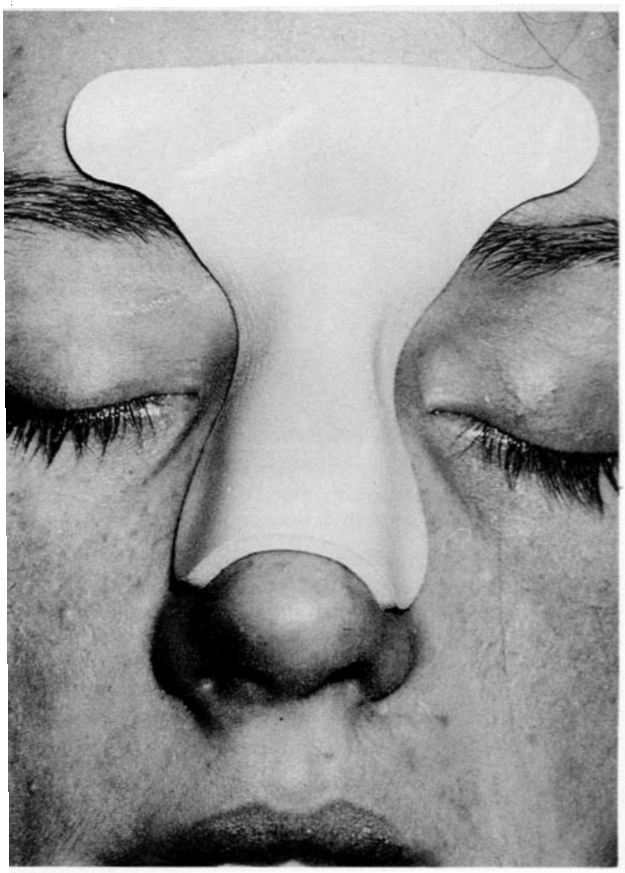


FIG 1.
Splint moulded to nasal contour.

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