Are surgical shoes providing value for money?

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Surgical shoes are commonly prescribed by orthopaedic surgeons and rheumatologists. The shoes include both bespoke surgical shoes, which are specially designed and fitted, and "comfort shoes," which are commercially made soft leather or suede shoes and are cheaper to prescribe. Comfort shoes usually cost 40% less than bespoke shoes and appear more cosmetically acceptable to the patient.

All patients need to be reassessed before repeat prescription to ascertain their ability to put on and remove the shoes and to note their acceptance of the shoes' appearance. Many patients now wearing bespoke footwear have deformities that are amenable to the wearing of comfort shoes.

Patients, methods, and results

Ninety eight patients were prescribed and fitted with shoes through the NHS at the General Hospital, Nottingham, from January 1985 to December 1986. Two to three years after the original prescriptions patients were interviewed at home by two trained female interviewers. The patients were asked about their compliance, how often they wore the shoes, and whether there were any specific and general problems in wearing them. They were also asked whether they thought that the shoes were comfortable and of benefit; what they thought about the appearance of their boots or shoes; and whether other footwear, such as slippers, sandals, or other boots and shoes, was worn concurrently.

Of the 98 patients who were entered into the study, one man and six women had died, six patients were untraceable, and three patients had undergone an operation and no longer needed surgical footwear. The remaining 82 comprised 23 men and 59 women. The age range was 22 to 95 (median age 68). Eight patients had been prescribed comfort shoes and 74 bespoke shoes (table). Fourteen patients had stopped wearing their special shoes within 36 months after prescription. Fifty wearers of bespoke shoes and seven wearers of comfort shoes thought that their shoes were of benefit.

We used the technique of Klenerman and Hughes to

estimate that the average day was roughly 16 hours long.¹ Using this method we found that almost two thirds of wearers wore their shoes regularly. Seventy five had unlimited or only slightly restricted mobility. Of the remainder, one was chairbound and seven were housebound. Forty nine wearers of bespoke shoes and all wearers of comfort shoes were so satisfied with their shoes that they would want a repeat prescription. A considerable number of patients (33) had difficulty in putting on their shoes, often requiring help, and clearly prescribers were not paying sufficient attention to the need for Velcro fasteners for some patients.

Diagnosis of conditions requiring surgical shoes

Condition	Bespoke shoes	Comfort shoes	Total
Osteoarthritis	2		2
Rheumatoid arthritis	2		2
Hallux valgus	16	2	18
Pes cavus	3		3
Congenital deformity	9*	1*	9
Old polio	2		2
Ankle problems	2	1	3
Hammer/claw toes	3	1	4
Hallux rigidus	1	1	2
Combinations	21	2	23
Other	14		14
Total	74	8	82

*One patient in this group had been prescribed both types of shoe.

Comment

Of 82 patients prescribed surgical footwear in Nottingham, 66 continued wearing their shoes after two years. But even patients who still wore their surgical shoes were often dissatisfied, the reasons being inability to fasten their shoes themselves because of problems with other joints and the poor appearance of the shoes. Better use of surgical shoes will result if Velcro fasteners are specified more often in the original prescription for patients with poor manual dexterity. In addition, patients should be shown the range of shoes available before requesting formally that a pair be made to order. It is better for the patient to reject the shoe before provision than immediately after.

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1 Klenerman L, Hughes J. Surgical footwear: an assessment of the place of ready-made extra-depth shoes. *Current Health Trends* 1986;18:45-6.

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Cold injury from liquid propane

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The danger of injury from volatile liquids such as liquid propane igniting is well known. "Burn like" injuries produced from short but direct contact are less well known. We report two cases of cold injury from liquid propane.

Case 1

A 15 year old boy was playing with a cylinder of liquid propane gas and fell with the cylinder on top of him. Some colourless liquid and white gas sprayed on to his face and hands for about 20 seconds. When he was examined in the burns unit at this hospital he had superficial "burns" to his face and right hand of 1.5%

body surface area. His hand was erythematous and blistered, his face erythematous. He was treated for a thermal injury. The hand was covered with silver sulphadiazine and a polyethylene bag and was raised and mobilised. The face was treated by exposure. He was discharged the next day. Three weeks later an area 3×4 cm on the dorsum of the first web space of the hand, which had not healed because of full thickness skin loss, was surgically debrided and a split skin graft applied. Six weeks after the injury his burns had fully healed and function had returned.

Case 2

A 43 year old driver transporting liquid propane gas opened the filling valve while filling the tanker and a jet of liquid propane leaked from the tank, spraying his right thigh. He was wearing overalls and a pair of jeans. He was transferred to the burns unit from the local accident unit. He had a superficial "burn" to