

SPONSORED PARACHUTE JUMPS — CAN THEY CAUSE PROLONGED PAIN?

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ABSTRACT

A survey of parachute injuries sustained in 1984 at a local parachute club was made using hospital notes and a questionnaire. The overall injury rate was 0.2%. The injury rate in first time jumpers was 1.1%. The injuries often resulted in a prolonged hospital stay, time off work and residual pain and disability. Injury rates may be reduced by more prolonged and intensive training preceding the first jumps. Those people not interested in parachuting as a regular sport and who jump once only in order to raise money for charity are at risk of serious injury and perhaps should consider less dangerous alternatives.

INTRODUCTION

Maidstone is the closest hospital to one of the largest parachute clubs in England. An increasing number of parachute jumps, between 50-75%, are made as part of a sponsored charity event. In recent years, an increasing number of patients with injuries caused by parachuting were seen in the Casualty Department at Maidstone Hospital. The majority of these injuries were seen in first time jumpers (Table I).

TABLE I
Annual injuries

Year	Number of injuries	Number of injuries in first time jumpers
1980	11	6 (54%)
1981	21	14 (58%)
1982	31	18 (58%)
1983	29	21 (72%)
1984	41	32 (78%)

METHOD

Using information from the parachute club, hospital notes and a questionnaire, we conducted a survey of parachuting injuries occurring during 1984. The questionnaire asked the following:—

- was the jump made for charity?
- how much was raised?
- length of time off work as a result of injury?
- residual pain or disability?

RESULTS

In 1984, 19,356 jumps were made and 2,869 (15%) were made by first timers. The total number of injuries was 41 of which 32 were in first time jumpers, giving an injury rate of 0.2% overall and 1.1% in beginners. The injury rate in progressive jumpers was 0.05%. Thirty-four injuries were fractures, the rest being soft tissue injuries. Of the fractures, the commonest injury was a fracture of the ankle (Table II).

TABLE II
Fractures

Fractures	Number	Percentage
Ankle	14	41
Tibia and Fibula	9	26
Pelvis	4	12
Vertebra (compression type)	3	9
Neck of Femur	2	6
Forefoot	1	3
Radius	1	3

Twenty-one (51%) required admission to hospital, the average length of stay being 11 days.

Twenty-four (58%) of the patients returned the questionnaire. Of this group, 11 had jumped for charity and had raised an average of £206 per jump. The average length of time off work as a result of injury was 9.33 weeks and 11 (46%) reported residual pain or disability after one year.

DISCUSSION

Despite sensible and extensive precautions, parachuting is by its nature, a dangerous sport with a significant injury and even death rate (Ryan and Thomas, 1965). The reported injury rate varies from 0.13-10% (Quinlan, 1975). The reported injury patterns are similar with fractures around the ankle joint being the commonest injury (Essex-Lopresti, 1946, Tobin et al, 1941, Salai et al, 1983 and Petras and Hoffman, 1983). Our overall injury rate of 0.2% and first time injury rate of 1.1% is comparable with a previous report on sports parachuting injuries by Quinlan (1985).

A direct comparison with military studies is difficult as their jumps are often made in far more demanding circumstances. Injury rates have been shown to decrease with weight (Essex-Lopresti, 1946) and increased training (Hallel and Naggan, 1975). The majority of fatalities are due to lack of training and inadequate instruction (Ryan and Thomas, 1965). A report from the Israeli Defence Forces Medical Corps recommends two weeks intensive and effective training preceding the initial jumps (Hallel and Naggan, 1975). In their report, the 'refresher group' who had only one day of training had a far higher injury rate.

Our study shows that sports parachuting injuries are

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often serious, resulting in a prolonged hospital stay, time off work and residual disability. Many first time jumpers are charity jumpers and usually only receive one day's training prior to their jump. We are concerned that this group of people, which seems to be increasing in number, may fail to realise the risks that they are taking and should receive more intensive training before their jump. The amount of money raised by a charity jump pales into insignificance when compared with loss of earnings and cost of hospital treatment if injury occurs.

As a result of our survey, we consider that sports parachuting is an unnecessarily dangerous way of raising money for charity and recommend that medical practitioners should actively discourage people from fund raising in this way.

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