



INJURY BULLETIN

QUEENSLAND INJURY
SURVEILLANCE & PREVENTION
PROJECT

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This Month. . . .

In this edition of the Injury Bulletin we examine the following topics:

- **Firearm Injuries**
- **Road traffic injuries involving motor vehicle occupants**
- **Netball Injuries**



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DID YOU KNOW?

- The injury epidemic has now replaced the diseases of malnutrition and infection as the leading cause of death in people under 40 years of age, partly as a result of the growth of mechanisation and new technology.

- In the United States injuries are the cause of more years of working life lost than any other disease, exceeding both heart disease and cancer combined. Injuries cost Australia \$11 billion annually because of their prevalence, and because they tend to occur early in life, with an associated loss of productivity.

- Injuries are not accidents or the result of accidents. Injuries are a disease, and like any other disease can be prevented and treated by modern medicine. The primary agent causing injuries is energy, rather than bacteria or parasites as in communicable diseases. Most injuries are due to mechanical or kinetic energy transmitted by vectors such as the moving parts of machinery or a falling object. **Q**

FIREARMS

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Firearm deaths among adults and children have been reported in the popular press and in the medical and injury control literature to be at epidemic proportions in the USA. Controls have recently been introduced for assault rifles, however, in spite of this there remain 1.5 million assault rifles in private hands in that country. It has been estimated that there are also 100 million hand guns in the USA. Australia has strict control over hand guns and assault rifles and some States have introduced token measures to control the misuse of hunting rifles.

FATAL GUNSHOT INJURY IN CHILDREN 1981 - 1991

We review here fatal gunshot injury to children over the 11 years (1981-1991) for the whole of Queensland.

Thirty children less than 15 years of age died as a result of gun shot wounds during the period 1981-1991 in Queensland. There were 20 males and 10 females in this group. Six children were less than 5 years of age and 26% (8 children) were 13 years of age.

Tragically, firearm deaths in children often involve violence, either in the context of murder followed by the suicide of the perpetrator, or as self-inflicted injury by adolescents.

Scenarios not involving violence included children who gained access to a loaded gun or who were unintentionally shot by another child, a friend or a relative.

It is of concern that children have access to loaded firearms or are in the vicinity while others are using firearms.

Handguns, now such a problem among children in the United States, were not implicated in any of these child fatalities. Of the 11 non-fatal incidents where the type of gun was known to be a handgun none involved children.

QISPP NON-FATAL ALL-AGE INJURIES FROM GUNS 1988 - 1992

In this first QISPP report on injuries from guns we have included unintentional injuries from gunshot wounds, from guns exploding while being fired, mechanical injuries from the gun itself and the use of guns in acts of violence whether by shooting or as a hitting weapon. During the six years from 1988 to 1993, 174 people were injured by guns.

These 174 people comprised 158 males and 16 females. Seventy-seven people (44%) required admission to hospital. Ages of the injured ranged from two years to 80 years and above, with the most common age group being 15-19 year old males. Thirty-one of the injured were children of less than 15 years of age, 17 of whom required admission for treatment.

Of the cases where the type of gun was recorded, air guns were the most common followed by rifles, handguns, shotguns and skirmish guns. Handgun injuries occurred in the context of training in their use, apprehending offenders, robbery and domestic violence.

People were injured on all days of the week. Fewer were injured on Thursdays than on any other day. Fifty six percent of injuries occurred at the person's own home and 21% of all injuries occurred in the living room or bedroom of the injured person's residence. Eight percent occurred at places of business such as restaurants, banks and shops and eight percent occurred at outdoor recreation areas.

Ten percent of the injuries occurred while the injured person was at work. Fifty six percent occurred during recreational activities and almost 2% happened during sports competition or practice.

Sixty six percent were described as unintentional injuries, 22% as assaultive and 8% as self-inflicted.

The group who described their injury as accidental included those who were cleaning a loaded gun and others who were shooting when the gun "just went off".

Preventive measures which may reduce firearm injuries include training in gun management, cleaning, handling and safety checks and routines such as knowledge of whether the gun is loaded. Lack of safe practices was evident in the injury scenarios of those people who were shot unintentionally. **Q**

ROAD TRAFFIC INJURIES INVOLVING MOTOR VEHICLE OCCUPANTS

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QISPP recorded 9,775 injuries to motor vehicle occupants involved in road traffic accidents during the six years 1/1/88 - 31/12/93.

68% of occupants reported wearing seat belts at the time of the crash. Seat belt use was not recorded in 2% of cases.

53% of injured occupants presenting at Brisbane South Emergency Departments were drivers, 21% were front passengers and 12% were rear passengers.

There did not appear to be any significant difference in the admission rates of these three

categories of motor vehicle occupants, with 20.5% of drivers admitted, 21.3% of front passengers and 21.8% of rear passengers requiring admission.

The following table gives a breakdown of seat belt use in the study group:

	drivers n=5277 (%)	front pass. n=2053 (%)	rear pass. n=1192 (%)
seatbelt n=6768	4194 (79)	1593 (78)	708 (59)
no seatbelt n=2941	1013 (19)	427 (21)	442 (37)

Of those motor vehicle occupants requiring admission to hospital following their injury, 46% reported wearing no seat belt and 53% reported that they were wearing a seat belt.

A cross-tabulation of seatbelt usage, injury types and admission rates for the 5,277 drivers in the study group suggested the following:

- seatbelts reduce drivers' chances of getting a fracture, concussion, spinal injuries and chest injuries, but not abdominal injuries or head and neck injury
- seatbelts reduce the likelihood of admission for all injuries to drivers except spinal injury
- the most common injury scenario was the seatbelted driver who sustained injuries to the head or neck
- the least common injury scenario was the seatbelted driver sustaining spinal injuries
- seatbelted drivers sustaining injuries to the head or neck were the least likely to require admission. **Q**

NETBALL INJURIES



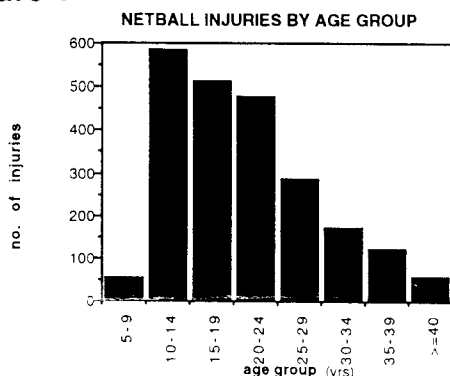
This article focuses on injuries occurring while playing netball in organised competition. Netball is a popular sport and has a high participation rate, particularly amongst females.

Sporting injuries accounted for 13% of all injuries on the QISPP database over the 6 years from 1/1/88 to 31/12/93. Sports ranked in order of number of injury presentations were:

1. football (all codes excluding soccer)
2. cricket
3. soccer
4. netball

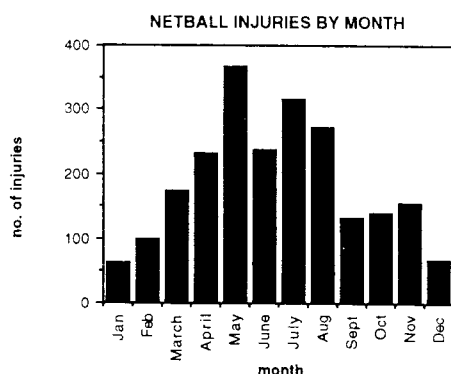
2,259 netball injuries occurring during organised competition were recorded by QISPP over the six years to 31/12/93. Ninety percent of players were female and the age group most at risk from injury was the 10 to 14 year age group (Fig 1).

Figure 1



The incidence of injuries corresponded with the netball season (Fig 2).

Figure 2



In 35% of cases, the injury was reported to be due to a fall. 29% of cases were due to a collision with other players or netball equipment, and a further 28% were caused by over-exertion.

Over half of the injuries were sprains and strains, with sprained ankles accounting for 32% of all netball injuries. Fractures occurred in 18% of injuries, with the commonest fracture site being the finger (6% of all netball injuries).

The body part most at risk of injury was the ankle (37% of injuries), followed by the finger (20%) of injuries) and the knee (10% of injuries). Rule changes have been proposed to try to reduce the incidence of stress injury particularly to the lower limbs. **Q**

PRODUCT RECALL NOTICES

VEHICLES

HOLDEN: JM Apollo vehicles manufactured between November 1993 and May 1994 require attention to the fastening of the steering wheel attaching nut. It is possible that the steering wheel may become loose potentially causing loss of steering control. Contact your local Holden Dealer.

TOYOTA: Recalling Camry models except those equipped with airbag produced between 10th November 1993 and 2nd June 1994. During the production process, a tooling malfunction has resulted in some vehicles being produced with the steering wheel retaining nut torque (tightness) below specification. Could result in steering control being compromised. Contact 008 800 394.

PRODUCTS

JAYMARK PTY LTD: This product has been recalled because the rattles in the set pose choking hazards to young children. A defect has been found with the telephone and rolling rattles, which will lead to the release of the small beads. Consequently, the product does not comply with the mandatory safety standard. Contact (02) 516 5999.