



INJURY BULLETIN

c/o Mater Hospitals, South Brisbane 4101
Ph 61 7 38408569 Fax 61 7 38401684 E-Mail Mail@qisu.qld.gov.au
Website: <http://www.qisu.qld.gov.au>

Recreational water injuries



Introduction

Due to the climate and extensive coastline of Queensland, water related recreational activities are a large part of everyday life in the *Sunshine State*. Therefore it is not unexpected that a significant number of injuries are sustained which are related to these activities.

During 1997 and the first 6 months of 1998 the Queensland Injury Surveillance Unit collected 1587 water related injuries presenting at emergency departments at participating hospitals*. Although there

(Continued on page 2)

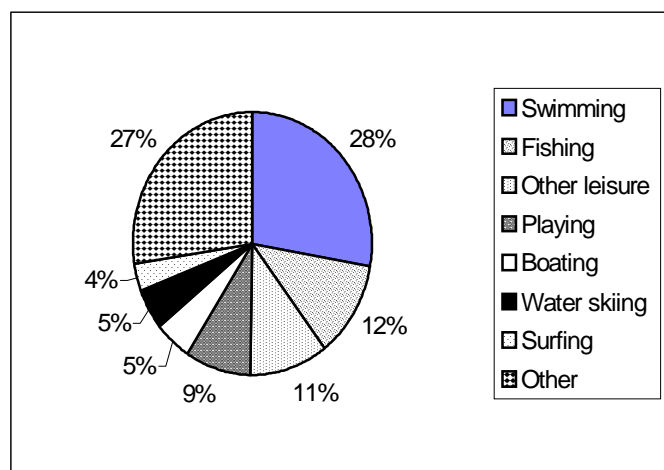


Figure 1 QISU recreational water injuries, January 1997 to June 1998, by activity

*

* QISU data is based on emergency department presentations to the following hospitals: Mater Children's Hospital, Mater Adult Hospital, Mater Private Emergency Care Centre, Queen Elizabeth II Jubilee Hospital, Redland Hospital, Logan Hospital, Royal Children's Hospital, Mt Isa Hospital and Mackay and district hospitals.



Q I S U

were a wide range of activities recorded amongst these injuries, the largest single activity was not surprisingly swimming (28%), followed by fishing (12%), other leisure (11%) and playing (9%) (Fig 1). Because of the diverse nature of water related activities each of the main activities are presented separately as well as for selected locations.

Swimming injuries

Swimming injuries make up the single largest group of water related injuries. While *drowning or near-drowning* may be the most obvious injury, in reality it forms a relatively small proportion (7%) of swimming injuries presenting at emergency departments. The majority of injuries are due to *struck by or collision with an object or person* (30%), *low falls* (17%)



and *cutting or piercing object* (11%). It must also be remembered that drowning resulting in death of the victim seldom results in presentation to an emergency department.

Almost half (45%) of the swimming-related injuries occurred in a

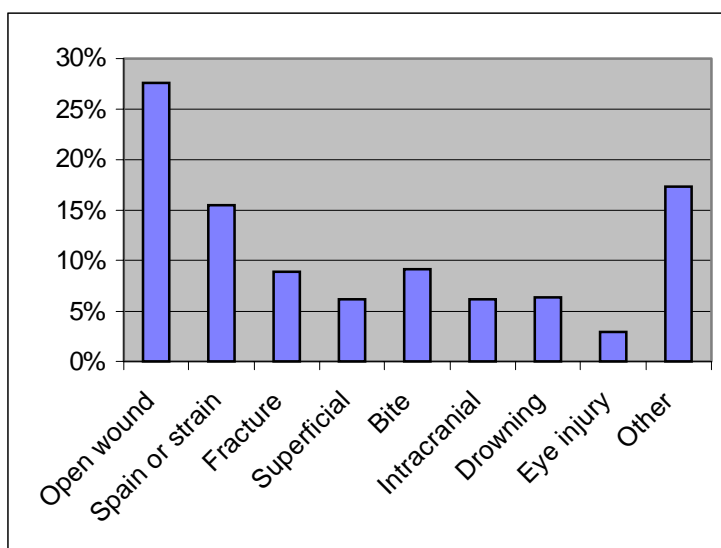


Figure 2 QISU recreational swimming injuries January 1997 to June 1998, by nature of injury

swimming pool followed by water park (14%) and beach (11%). More than half of those injured were less than 15 years of age (Table 1).

The most common type of injury was an open wound (28%) followed by a sprain or strain (15%). Venomous and non-venomous bites made up 9% of the injuries, mostly due to marine stingers or in the case of swimming pool bite injuries, spiders. Swimming resulted in the highest proportion of head injuries of any water related activity (6%).

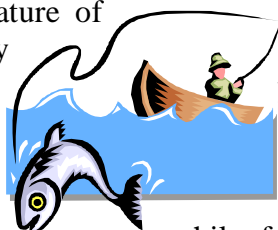
Fishing injuries

Recreational fishing is recognised as having the highest rate of participation of any recreational or

| Age | Swimming N=439 | Fishing N=190 | Boating N=83 | Skiing N=76 | Surfing N=56 | All N=1587 |
|--------------|-------------------|------------------|-----------------|----------------|-----------------|---------------|
| | % | % | % | % | % | % |
| 0-4 years | 8% | 1% | 1% | 0% | 7% | 7% |
| 5-14 years | 46% | 17% | 12% | 5% | 23% | 29% |
| 15-24 years | 23% | 24% | 29% | 58% | 34% | 24% |
| 25-44 years | 17% | 40% | 35% | 34% | 32% | 27% |
| 45-64 years | 5% | 14% | 22% | 3% | 4% | 12% |
| 65+ years | 1% | 4% | 1% | 0% | 0% | 2% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% |

Table 1 QISU recreational water injuries, January 1997 to June 1998, by age and activity.

sporting activity in Australia, particularly Queensland. Next to swimming, fishing injuries made up the largest group of water-related injuries (12%). As would be expected, the circumstances and nature of fishing injuries are markedly different to other water related injuries.



Most fishing injuries were due to *cutting or piercing objects* (44%) followed by *low falls* (19%) and *animal related* (14%) The animal related injuries mostly involved being spiked by fish spines. Most injuries resulting in an *open wound* (34%) or *foreign body in soft tissue* (19%), which were mostly fish hooks.

The victims of fishing injuries were markedly older with more than half being aged 25 years or older and predominantly male (83%) (Table 1). Fishing injuries occurred most often at a river, creek or lake (37%), or at or by the sea (31%).

Boating, water skiing and surfing injuries

Although boating, water skiing and surfing made up only a small proportion of water related injuries they each have their own

particular characteristics (Figure 1).

Victims of boating injuries are characterised by being older (58% 25 years or older) while water skiers and surfers who are injured are typically aged 15 to 24 years (Table 1).

For water skiing the predominant cause of injury is *low falls* (45%) while for surfers it is being *struck by or collision with object or person* (41%). Most boating injuries have an external cause recorded as *other transport* (34%) ie. boat. The type of injuries sustained during all three activities were dominated by open wounds, sprains or strains and fractures (Figure 3).

Home swimming pool and water park injuries

Two locations for water related injuries, home swimming pools (10%) and water parks (14%), were chosen for further examination. The ages of injury victims in home pools were younger than those at water parks (64% vs 45% under 15 years) and a greater proportion had an activity of swimming or playing recorded for home pools.

(Continued on page 4)

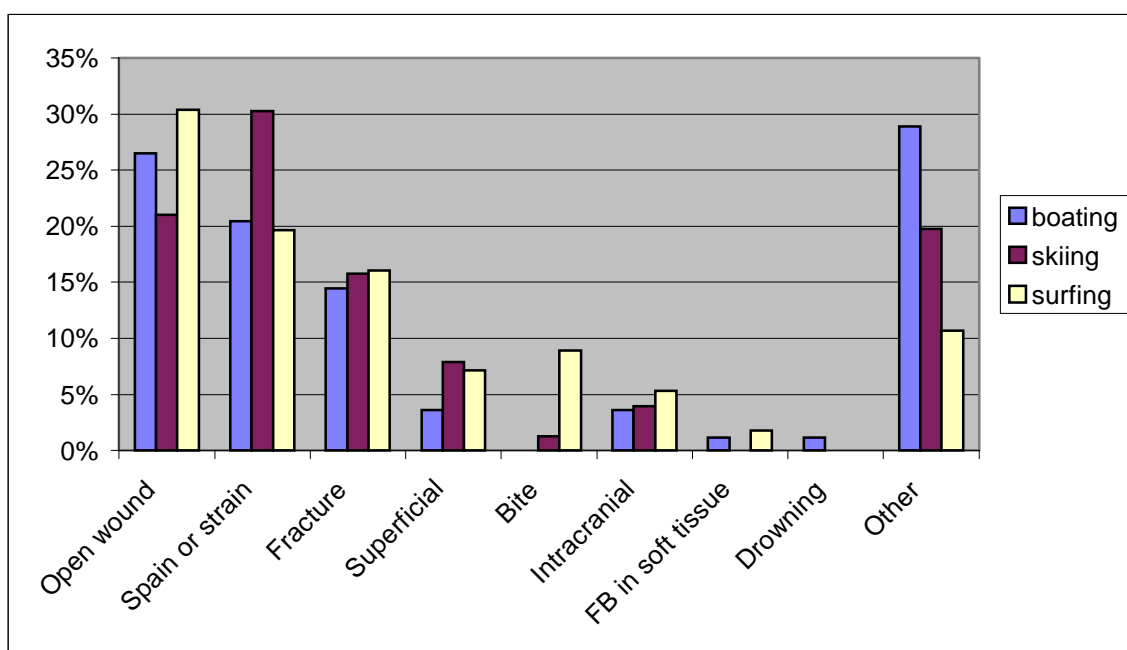


Figure 3 QISU recreational boating, skiing and surfing injuries January 1997 to June 1998, by nature of injury

The main causes of injury at both locations were similar being *low falls* (28% and 29%) and being *struck by or collision with object or person* (25% and 29%). *Drownings or near-drownings* made up 11% of injuries in home pools compared with only 2% at water parks.

The nature of the injury was also similar for both locations with most being open wounds (each 28%) and sprains or strains (15%, home pools and 17% water parks). Water parks had a higher proportion of fractures (13% vs 6%) and head injuries (7% vs 5%) compared with

home pools.

A potential area for injury at water parks, but by no means confined to this location only, is the water slide. During the study period 17 water slide related injuries were identified. These injuries were almost exclusively caused by being *struck by or collision with object or person* (65%) or by a *low fall* (29%). The resulting injuries were characterised by open wounds (35%), fractures (24%) and sprains or strains (12%). Almost half of the victims were of school age.

Recommendations

It is difficult to make specific recommendations for such a range of activities but as a significant number of these injuries involve children the provision of adequate adult supervision is imperative. The onus is on parents and other carers to make children aware of the dangers associated with water activities and help them to enjoy these pursuits safely.

More specific recommendations relating to water based activities are:

- ◇ When boating, wear slip resistant footwear and keep decks clean.
- ◇ Restrict the use of alcohol and/or other

drugs.

- ◇ Be aware of potential injury from particular fish species and take appropriate precautions when handling them.
- ◇ Always swim in the stinger enclosure during the box jellyfish season and avoid swimming where and when marine stingers are common.
- ◇ Avoid spinal and/or head injuries by checking the water for depth and obstacles before diving in.
- ◇ Ensure home swimming pool fences and gates comply with Local Government Legislation and are maintained.
- ◇ Never leave pool gates propped open or

Richard Hockey, Data Analyst, QISU

