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Workplace Relations**

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Compensation Council

Part E

Feature article

The mechanisms *Hitting* and *Being hit*

Priority mechanisms

The *Mechanism* classification identifies the action, exposure or event that was the direct cause of the most serious injury or disease sustained by the employee making the compensation claim. As part of the *National Strategy 2002–2012*, the ASCC has identified three mechanisms to be targeted for priority action to reduce their high prevalence among compensated claims. Two of these mechanisms are *Falls, trips and slips of a person* and *Body Stressing*, which were examined in the two previous editions of the compendium. This article examines the third priority mechanism, the combined classifications of *Hitting objects with a part of the body* and *Being hit by moving objects*.

The mechanism classification *Hitting objects with a part of the body*, referred to throughout the text of this article as *Hitting*, is used to describe injuries that resulted from the motion of the person when hitting, grasping or otherwise striking objects. The classification *Being hit by moving objects*, referred to throughout the text as *Being hit*, is used to describe injuries that resulted from an object hitting the person.

The mechanisms *Being hit* and *Hitting* were the third and fourth most common mechanism categories in 2002–03p, representing 14% and 7% respectively of compensated claims. These mechanisms ranked behind *Body Stressing* and *Falls, trips and slips of a person* that represented 41% and 20% respectively of claims in 2002–03p.

Figure 30 Distribution of claims by mechanism, 2002-03p

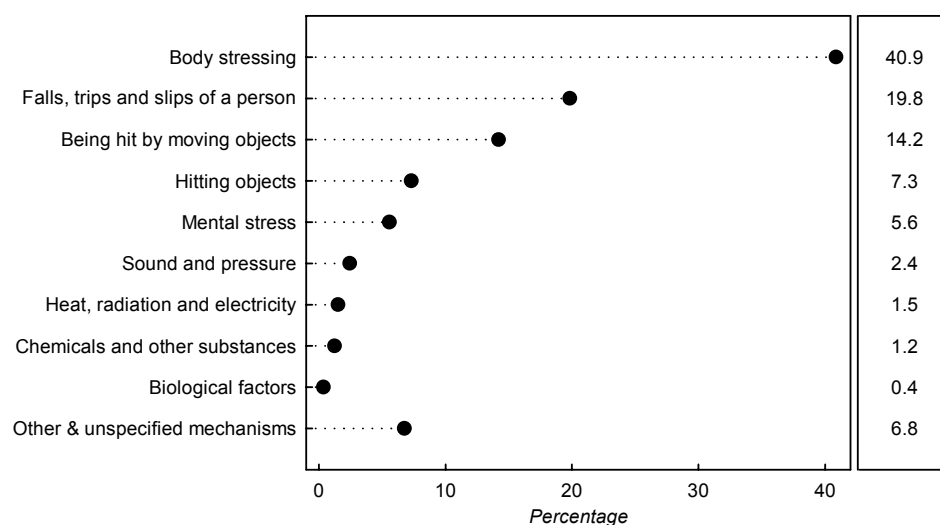


Table 18 *Hitting and Being hit: non-fatal and fatal claims*^(a)

| Mechanism | 1996–97 | | | 2002–03p | | |
|---|---------------|-----------|----------------------|---------------|-----------|----------------------|
| | Non-fatal | Fatal | Total ^(b) | Non-fatal | Fatal | Total ^(b) |
| <i>Hitting objects with a part of the body</i> | 12 935 | 5 | 12 940 | 9 595 | 2 | 9 595 |
| Hitting stationary objects | 5 265 | 2 | 5 265 | 5 035 | 1 | 5 035 |
| Hitting moving objects | 7 495 | 3 | 7 500 | 4 435 | 1 | 4 435 |
| Rubbing and chaffing | 175 | | 175 | 120 | | 120 |
| <i>Being hit by moving objects</i> | 22 360 | 82 | 22 435 | 18 550 | 41 | 18 595 |
| Being hit by falling objects | 5 055 | 21 | 5 075 | 4 255 | 7 | 4 265 |
| Being bitten by an animal | 145 | | 145 | 135 | | 135 |
| Being hit by an animal | 575 | | 575 | 655 | 1 | 655 |
| <i>Being hit by a person</i> | 2 240 | 1 | 2 240 | 2 445 | 5 | 2 450 |
| Being assaulted by a person or persons | n.a. | n.a. | n.a. | 1 460 | 4 | 1 465 |
| Being hit by a person accidentally | n.a. | n.a. | n.a. | 985 | 1 | 985 |
| Being trapped by moving machinery | 3 285 | 10 | 3 295 | 2 210 | 8 | 2 220 |
| Being trapped between stationary and moving objects | 2 780 | 3 | 2 785 | 2 135 | 4 | 2 135 |
| Exposure to mechanical vibration | 240 | | 240 | 130 | | 130 |
| Being hit by moving objects | 8 030 | 47 | 8 075 | 6 585 | 16 | 6 605 |
| Total <i>Hitting and Being hit</i> | 35 295 | 87 | 35 380 | 28 145 | 43 | 28 190 |

(a) Claims are rounded except in the case of fatalities.

(b) Components may not sum to totals. See Appendix 1, Paragraph 5, p. 56.

n.a. = Not available

The order of the four most common mechanism categories has not changed over the period 1996–97 to 2002–03p and the proportion of claims attributed to each has remained similar. However, the total number of claims has decreased over the period by 18%. This decrease was distributed across all mechanism categories with the exception of *Mental stress* (for which the number of claims increased by 62%). For *Hitting*, the number of claims decreased by 26% between 1996–97 and 2002–03p. For *Being hit*, the number of claims decreased by 17% (see Table 5a, Part A, p.17).

Injury claims resulting from *Hitting and Being hit*

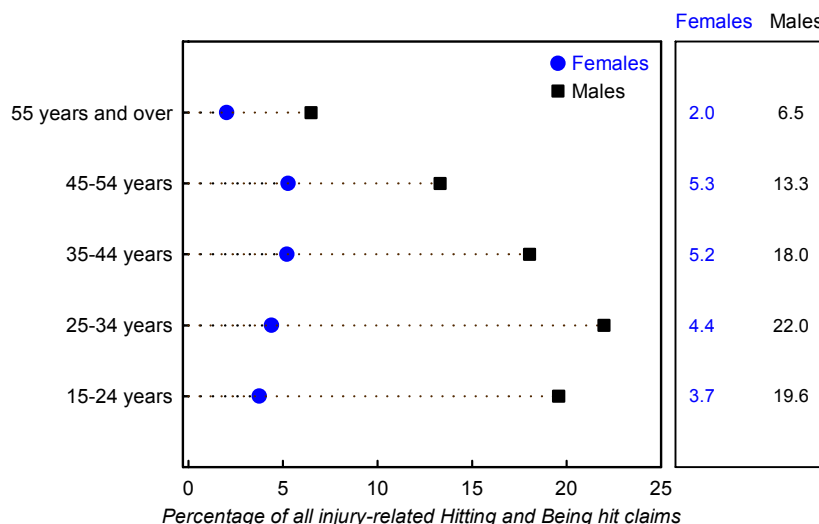
Of the 28 890 accepted claims attributed to *Hitting and Being hit* for 2002–03p, 28 190 (98%) were the result of injuries or musculoskeletal diseases. The following analysis is restricted to those claims and refers to them as ‘injuries’.

Over the seven-year period, 1996–97 to 2002–03p, there was a total of 407 fatalities from injuries attributed to *Being hit* and 28 fatalities attributed to *Hitting*. The number of fatalities per year attributed to *Being hit* has improved over the period, falling from 82 in 1996–97 to 41 in 2002–03p. The small numbers of fatalities attributed to *Hitting* each year make a trend hard to determine.

Table 18 shows the detailed classification categories that comprise *Hitting and Being hit*. For the classification *Hitting*, the most common sub-category in 2002–03p was *Hitting stationary objects*, with 5 035 claims, accounting for 52% of injury-related claims attributed to *Hitting*. This includes injuries sustained by running or walking into objects or by picking up objects. However, over the six previous years the sub-category *Hitting moving objects* was the most common; this includes injuries sustained by hitting or cutting oneself with a tool, or walking or running into a moving object.

The category *Being hit* has nine sub-categories, and of those, *Being hit by moving objects* not elsewhere classified was the most common in 2002–03p, accounting for 6 605 claims (36% of claims attributed to *Being hit*). This category includes being hit by moving vehicles; moving parts of machinery; and by flying objects, such as splinters or metal fragments. *Being hit by moving objects* not elsewhere classified was also the most common cause of fatalities among those attributed to *Being hit* (16 out of 41 fatalities).

Figure 31 *Hitting and Being hit: age and gender of employees, 2002-03p*



Characteristics of employees

In 2002–03p, employees who had an accepted claim resulting from *Hitting and Being hit* were predominantly male (79%) — a balance common across workers’ compensation claims in general. The proportion of male employees was even greater (91%) for claims that involved a fatality.

Figure 31 shows the age structure by gender of employees who had an accepted injury-related claim that was attributed to *Hitting and Being hit* in 2002–03p. Two points are highlighted by the graph: the predominance of relatively young male employees among this group (22% of claims were made by male employees aged 25–34 years); and the increase with age in the proportion of female employees in each age group. The conflicting trends for male and female representation by age meant that females accounted for a higher proportion of claims in the older age groups than for the younger age groups.

Another way to examine the age relationship of workplace injuries caused by *Hitting and Being hit* is to compare the annual number of compensated claims in each age group with the time employees in each age group spent in their work environment over that year. This comparison is termed the frequency rate and is measured in claims per million hours worked. This measure negates differences in the proportion of workers who are part-time (employees in the youngest

Figure 32 *Hitting and Being hit: frequency rate by age and gender of employee, 2002–03p*

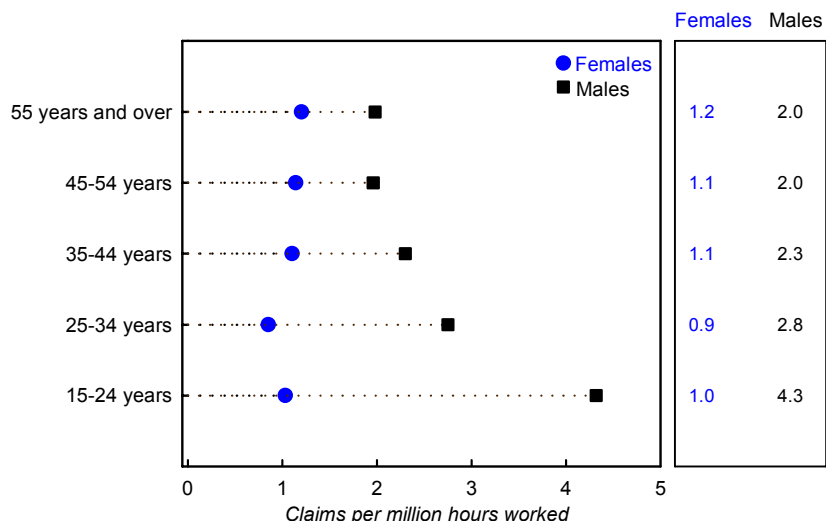
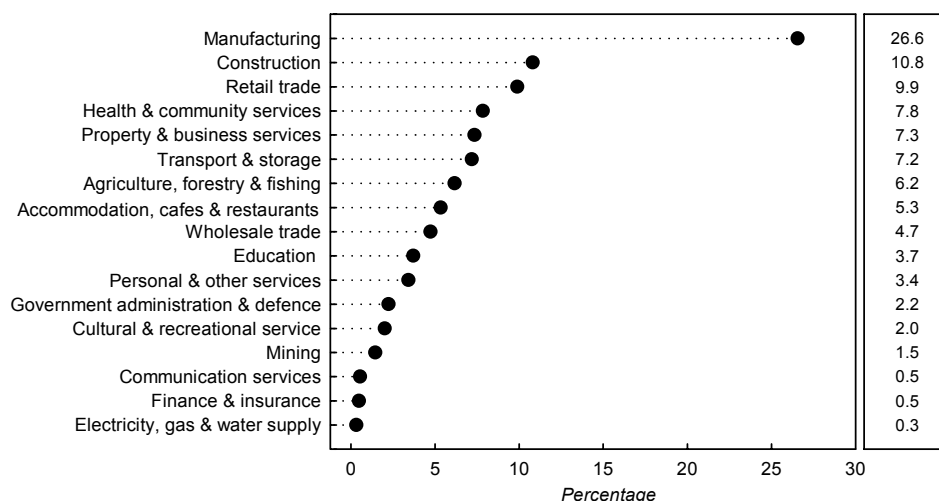


Figure 33 Hitting and Being hit: distribution of claims by industry, 2002-03p



and oldest age groups work fewer hours per week, on average, than other employees). The frequency rate allows comparison of the relative likelihood of sustaining an injury in each age group for each gender.

Figure 32 shows the frequency rate (claims per million hours worked) for each age group by gender for *Hitting and Being hit*. For male employees, the rates show that the likelihood of male employees sustaining injuries related to *Hitting and Being hit* improved with increasing age: from 4.3 claims per million hours worked among young employees aged 15–24 years, to 2.0 claims per million hours worked among employees aged 45–54 years and 55 years and over.

However, the rates for female employees, although less than half that of male employees overall (1.0 claims per million hours worked compared with 2.6 respectively), increased slightly with age. The lowest rate of 0.9 claims per million hours worked occurred among female employees aged 25–34 years. The rate increased with age to 1.2 claims per million hours worked among female employees aged 55 years and over.

In 2002–03p, just over one-quarter of claims (27%) attributed to *Hitting and Being hit* were made by employees in the *Manufacturing industry*. A further 11% of claimants worked in the *Construction industry* (see Figure 4).

Figure 34 Hitting and Being hit: distribution of claims by occupation, 2002-03p

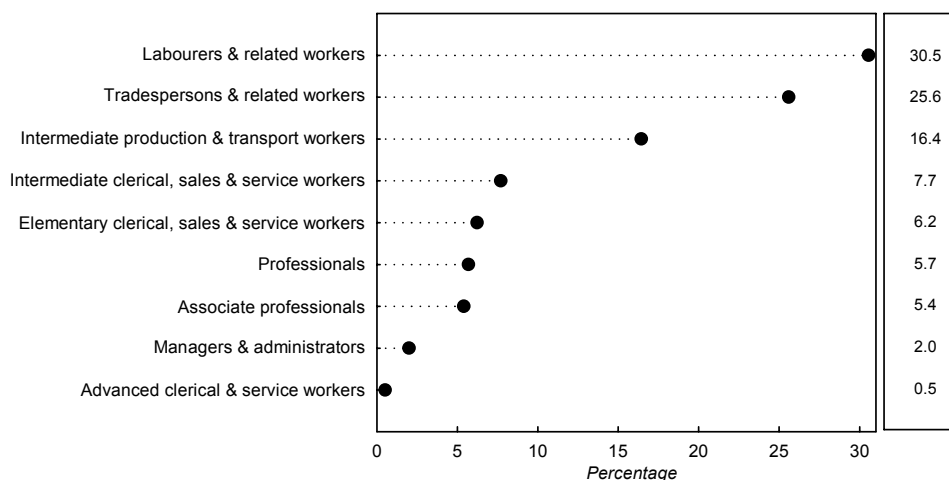


Figure 35 **Hitting: the six most common types of injury, 2002-03p**

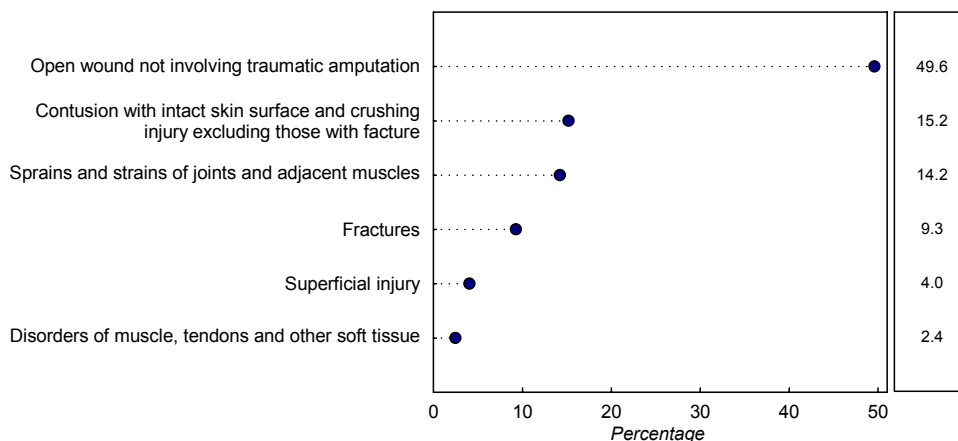


Figure 34 shows that in 2002–03p employees with accepted claims attributed to *Hitting and Being hit* were mainly concentrated in two occupation groups: 56% worked as either *Labourers and related workers* or *Tradespersons and related workers*. Of these two occupations, *Labourers and related workers* was the most dominant, representing nearly one-third of employees (31%) who made compensated claims attributed to *Hitting and Being hit*. Although *Labourers and related workers* are commonly associated with the *Construction* industry, the group also includes such occupations as factory process workers and cleaners.

Type of injury

Half of the employees who had an accepted injury-related claim attributed to *Hitting* sustained an *Open wound not involving traumatic amputation* — most commonly on the *Hands, fingers or thumbs* (77% of *Open wounds*). A further 15% of employees with injuries attributed to *Hitting* sustained a *Contusion with intact skin surface and crushing injury excluding those with fracture*, among whom 27% were injured on the *Hands, fingers or thumbs*. The third most common type of injury attributed to *Hitting* was *Sprains and strains of joints and adjacent muscles*, accounting for 14% of claims. These *Sprains and strains* occurred mainly on the *Upper limbs* (46% of *Sprains and strains*) and *Lower limbs* (34% of *Strains and sprains*).

Nearly one-quarter (24%) of employees who had an accepted injury-related claim attributed to *Being hit* sustained an *Open wound not involving traumatic amputation*; again, most commonly on the *Hands, fingers or thumbs* (65% of *Open wounds*). A similar proportion (23%) of claims attributed to *Being hit*

Figure 36 **Being hit: the six most common types of injury, 2002-03p**

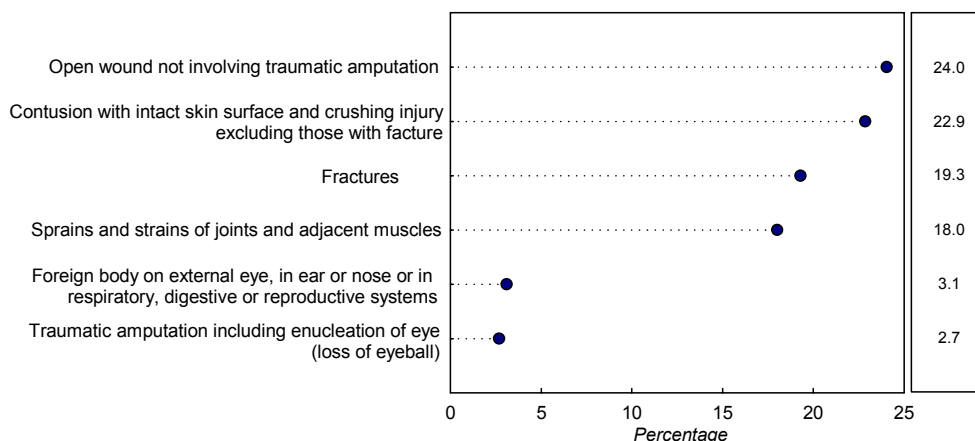
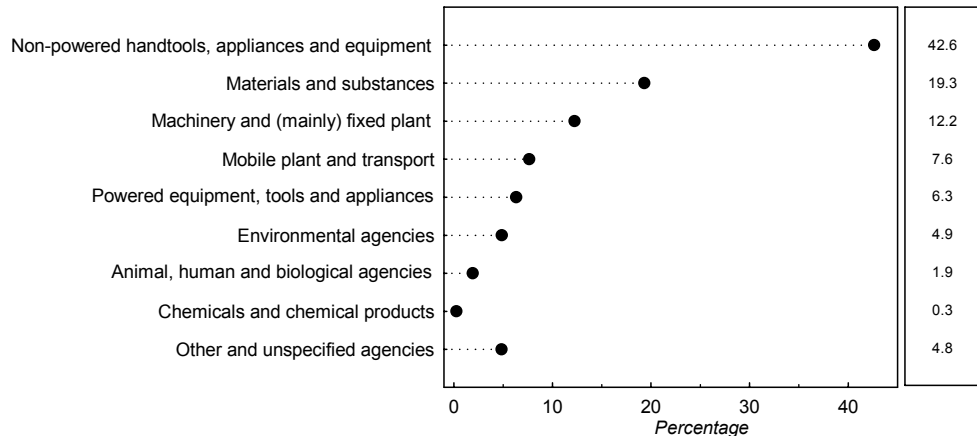


Figure 37 **Hitting: distribution of claims by breakdown agency, 2002-03p**



involved a *Contusion with intact skin surface and crushing injury excluding those with fracture* (33% of these injuries occurred on the *Hands, fingers or thumbs*). *Fractures* was the third most common type of injury associated with *Being hit*, accounting for 19% of claims. Just over half (55%) of these fractures were located on the *Upper limbs*, and then mainly on the *Hand, fingers or thumb* (81% of *Upper limb* injuries).

The cause of injuries

For employees who had an accepted claim for an injury attributed to *Hitting*, the most common objects or substances involved were *Non-powered handtools, appliances and equipment*, accounting for 43% of claims (see Figure 8). This group includes fastening and packaging equipment; furniture and fittings; and ladders, scaffolding, ramps and stairways. The second most common objects or substances, accounting for 19% of claims, were *Materials and substances*: including concrete, rock or broken glass. *Machinery and (mainly) fixed plant* accounted for a further 12% of *Hitting* claims.

Figure 38 shows that *Non-powered handtools, appliances and equipment* were also the most common types of equipment involved in injuries attributed to *Being hit*, accounting for one-quarter of claims. Also ranking second again, with 19% of claims attributed to *Being hit*, were injuries involving *Materials and substances*. The third most common group of objects was *Animal, human and biological agencies*, accounting for 18% of claims attributed to *Being hit*. This category includes injuries caused by living and non-living animals, and conditions relating to the employee themselves, such as fatigue, disabilities or illness.

Figure 38 **Being hit: distribution of claims by breakdown agency, 2002-03p**

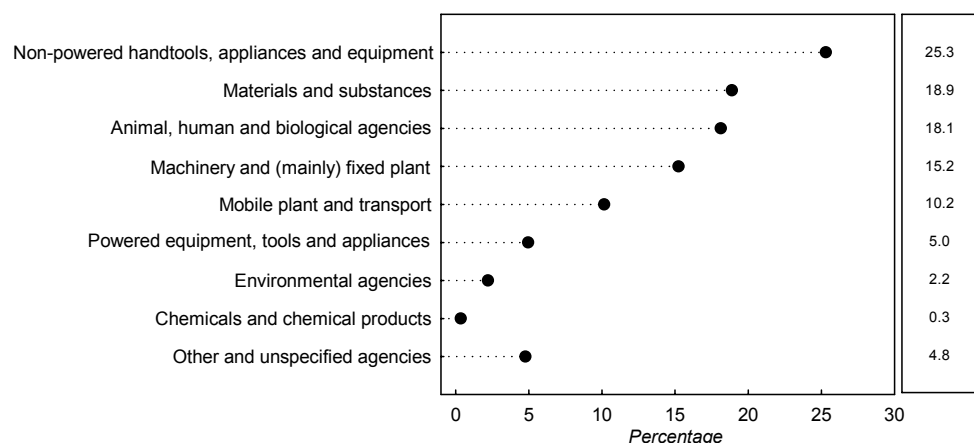


Table 19 Hitting and Being hit: median costs of claims and time lost from work, 2002-03p

| Mechanism | Median time lost | Median cost |
|--|------------------|--------------|
| | Weeks | \$ |
| Hitting objects with part of the body | 2.4 | 2 300 |
| Hitting stationary objects | 2.4 | 2 500 |
| Rubbing and chaffing | 2.6 | 2 100 |
| Hitting moving objects | 2.4 | 2 000 |
| Being hit by moving objects | 3.2 | 3 100 |
| Exposure to mechanical vibration | 4.9 | 6 700 |
| Being trapped by moving machinery | 4.0 | 4 900 |
| Being assaulted by a person or persons | 4.3 | 3 900 |
| Being hit by a person accidentally | 3.3 | 3 700 |
| Being trapped between stationary and moving objects | 3.0 | 3 200 |
| Being hit by falling objects | 3.1 | 2 900 |
| Being hit by an animal | 4.0 | 2 800 |
| Being hit by moving objects | 2.8 | 2 600 |
| Being bitten by an animal | 2.0 | 1 800 |
| Total Hitting and Being hit | 2.9 | 2 800 |
| All injury and musculoskeletal disease claims | 3.7 | 3 900 |

Median time lost from work and cost of claims

The time lost from work in working weeks, and the cost of accepted injury-related claims attributed to *Hitting* or *Being Hit* for 2002–03p are shown in Table 19. The cost of a compensation claim is influenced by a number of factors such as medical expenses incurred; the length of any absence from work; and the salary level of the claimant. Overall, employees with claims attributed to *Hitting and Being hit* (combined) had a median time lost from work of 2.9 weeks and a median cost of \$2 800. These figures were lower than the median of 3.7 weeks away from work and median cost of \$3 900 for all injury-related claims in 2002–03p.

The median time lost from work by employees and the median cost of claims attributed to *Being hit* were greater than those for *Hitting*: employees lost a median of 3.2 weeks and claims had a median cost of \$3 100. Claims attributed to *Exposure to mechanical vibration* involved the greatest median time lost from work, 4.9 weeks, and the highest median cost of claims, \$6 700. The lowest median time lost from work, 2.0 weeks, and lowest cost of claims, \$1 800, occurred among claims attributed to *Being bitten by an animal*.