Exercise bike-related injury

Data supplied by the Victorian Injury Surveillance Unit, Monash Injury Research Institute.

Data were selected from the Victorian Emergency Minimum Dataset (VEMD) which is collected from the 38 Victorian hospitals with a 24-hour emergency service. Data quality varies across the hospitals so the counts reported here are underestimates.

**Data source:** Victorian Emergency Minimum Dataset (VEMD) January 2006 – December 2010 (5 years)
**Search Strategy:** Injuries associated with exercise bikes were identified by searching the VEMD for cases using the text term "exercise bike" and “exercise cycle” and spelling variations contained in the 250 character 'Description of Injury Event' field. Selected cases were checked and any irrelevant cases were excluded from the dataset prior to analysis.

**Frequency:** In the years between January 1, 2006 and December 31, 2010 there were 173 exercise bike-related emergency department (ED) presentations.

**Figure 1 ED presentations for exercise bike-related injury by year 2006-2010 (n=173)**

![Bar chart showing ED presentations for exercise bike-related injury by year 2006-2010](chart)

**Gender:** Females (51%) presented slightly more frequently than males (49%).
Age: 51% of cases involved a child under 10 years old.

**Figure 2 Injury ED presentations related to exercise bikes by age group (n=173)**

![Bar chart showing injury ED presentations by age group](chart.png)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Number of ED presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>51</td>
</tr>
<tr>
<td>5-9</td>
<td>37</td>
</tr>
<tr>
<td>10-14</td>
<td>26</td>
</tr>
<tr>
<td>15-19</td>
<td>9</td>
</tr>
<tr>
<td>20+</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: VEMD, Jan 2006 to Dec 2010

Age groups in five year blocks from 20 to 80+ were represented, but have been condensed due to low numbers (n<5).

**Sample of case narratives:**

- Put fingers in exercise bike spokes
- Genitourinary injury, playing on exercise bike and caused injury to genital area with bleeding and some discomfort.
- Fell off exercise bike and smashed window laceration to back
- Got foot caught in exercise bike
- Child riding exercise bike and her right foot became caught in between the wheel and the pedal.
- Partial amputation - finger caught in exercise bike, patient got left ring finger stuck into exercise bike.
**Injury type:** The most common cause of injury was hit, struck, crush (34%) related to body parts being caught in the bike and crushed or struck by the gears or spokes. Falls were the next most common cause of injury (21%). Cutting or piercing injuries (13%) were also caused by gears and spokes.

**Figure 3 ED presentation for exercise bike-related injury by cause of injury (n=173)**

**Body site:** The most commonly injured body site was feet (29%), followed by hands (23%).

**Figure 4 ED presentation for exercise bike-related injury by body site (n=173)**

**Safety tips:**
Children are overrepresented in injuries related to exercise bikes;
- Do not let children play with exercise bikes.
- Do not let children near exercise bikes while they are in operation or not in operation.

**Further information:** For further information regarding exercise bike-related injury, see [Hazard editions 5, 9 and 30](#).