

brake.

- Instruct novice skaters to skate with their knees bent and their weight forward (over their toes rather than their heels), which allows them to fall forwards rather than backwards.

### **Provide a safe environment**

- Local councils should designate and maintain areas free of traffic, crowds, debris and surface irregularities for the use of in-line skaters.

### **Other safety tips**

- Use a broad spectrum sunscreen in high UV conditions
- Wear bright or reflective clothing if skating at night.

### **FOR FURTHER INFORMATION CONTACT:**

- Roller Sports Australia, PO Box 9, Brisbane, QLD, 4003.  
Ph: (07) 3236 2102. Fax: (07) 3236 1092.  
Email: [rollersp@powerup.com.au](mailto:rollersp@powerup.com.au)
- Wendy Kropp, 179 Victoria Ave, Albert Park, Vic. 3206.  
Ph: (018) 393 795 (for information on instructor certification)
- Sport and Recreation Victoria. Communications Unit, Client Services, GPO Box 2392V, Melbourne, Vic. 3001.  
Ph: (03) 9666 4331 (for additional copies of fact sheet)  
<http://www.vicnet.net.au/~sportrec/srvhome.htm>
- Accident Research Centre, Monash University. Building 70, Wellington Road, Clayton, Vic. 3168. Ph: (03) 9905 1808.  
email: [muarc.enquire@general.monash.edu.au](mailto:muarc.enquire@general.monash.edu.au)  
<http://www.general.monash.edu.au/muarc>

### **REFERENCES**

- Sherker S, Cassell E. In-Line Skating Injury: A review of the literature. Monash University Accident Research Centre. Report No 133. May 1998

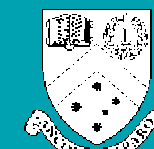
### **ACKNOWLEDGMENTS**

Illustration by Debbie Mourtzios.

This project was funded by Sport and Recreation Victoria and the Public Health Research and Development Committee of the National Health and Medical Research Council.



MONASH UNIVERSITY



ACCIDENT RESEARCH CENTRE

## FACTS ON IN-LINE SKATING INJURIES

In-line skating has emerged as an increasingly popular recreational activity in Australia. In-line skating is used for transportation and recreation, it appeals to all ages and has low participation costs. The increase in popularity has led to a rapid increase in the annual number of emergency department injury presentations related to in-line skating since 1990.

### How many in-line skaters?

- A capital city market research survey indicated that 10% of the Australian population over 15 years of age participated in in-line skating and/or roller skating in 1996, representing a 30% growth in participation from the previous year's survey.

### Who is injured?

- Victorian surveillance data indicates that there were at least 838 in-line injury presentations to hospital emergency departments over the two year period 1996 and 1997.
- 87% of injured in-line skaters who presented to Victorian emergency departments were aged 5 to 19 years (average age 12 years).
- 15%-28% of injured in-line skaters who present to Australian hospital emergency departments require admission.

### The causes and types of injuries

- The main risk factors for injury are the speed at which the skater travels, obstacles, lack of braking ability and hard landing surfaces.
- Falls are the most common cause of injury, accounting for 77% of in-line skating injuries presenting to Victorian hospital emergency departments.

- Falls typically involve two groups:
  - young novice or beginner skaters wearing little or no safety gear, who either spontaneously lose their balance while skating outdoors or fall after striking a road defect or some debris
- OR**
- experienced skaters performing tricks, often at considerable speed.
- Falls usually occur onto an outstretched arm on a hard landing surface. The wrist is particularly vulnerable to injury.
- Upper limbs are most commonly injured and are particularly susceptible to fractures, sprains and strains.
- Approximately 5% of in-line skating injuries are to the head.



## SAFETY TIPS FOR IN-LINE SKATING

### Prepare well

- Warm up and cool down, including adequate stretching, before and after skating may assist the prevention of overuse injuries.

### Take lessons

- Undertake skating lessons to improve confidence and technique, including proper balancing, braking and falling techniques and safe skating practices.
- Hiring outlets and schools should provide skating instruction by certified instructors.
- Local certification training for in-line skating instructors should be established in Victoria and Australia.

### Wear protective equipment and maintain skates

- Protective equipment provides a hard protective barrier between the body and the ground, absorbing or dissipating potentially injurious energy.
- **ALL** skaters should wear and ensure proper fit of protective equipment, including helmet, wrist guards, knee and elbow pads.
- Because the risk of head injury is greatest for younger skaters, it is especially important to ensure young children wear helmets when skating.
- Hiring outlets should provide complete protective equipment along with skates as a package deal.
- Skaters should ensure proper fit and condition of skates, including properly adjusted heel brakes.

### Provide supervision

- Carers should actively supervise children and novices until they develop sufficient skills to skate safely.
- Ensure all novice skaters are able to stop using their heel