

## Purpose and Standards

Helmets protect the head by reducing the rate at which the skull and the brain are accelerated and decelerated during an impact, effectively acting as a shock absorber between the force of the impact and the brain. By spreading concentrated forces of impact over the protective foam, and thus spreading the force over the wearer's scalp and skull, a good helmet provides the brain extra time and space needed to reduce injury. Instead of the impact concentrating on one point, it is spread across the wearer's head.

Most helmets are made of expanded polystyrene (EPS) foam with a hard plastic shell. The shell is designed to slide on rough surfaces and hold the foam together after initial impact. Upon impact, the polystyrene liner of the helmet crushes, thereby dissipating energy over a wider area. Similar to a shipping carton, the outer box may dent, but the EPS foam "packing peanuts" protect the contents of the box from breaking. Once the foam in a helmet is crushed, it does not recover, therefore a new helmet should be purchased.

The sponge pads inside a helmet are for comfort and fit, not for impact protection. When purchasing a helmet, the person who will be wearing it should be present to ensure the helmet fits properly. Helmets have different levels of protection and are rated for levels of impacts and forces. The helmet ratings are determined by its ability to absorb and dissipate the energy of an impact — regardless of the person's speed.

The Consumer Products Safety Commission offers guidelines for the type of helmet to wear for different activities. Although a helmet standard does not exist specifically for ice skating, until such standards are written, wearing one of the listed types of helmets may be preferable to wearing no helmet at all. For ice skating, the recommended helmets are: ASTM F1447; Snell B-90A, B-95, N-94. When buying a helmet, check the fine print for certifications.

## Do

- Wear helmet low in front to protect forehead
- Fasten buckle and check strap adjustment often
- Replace your helmet immediately if it shows any visible signs of damage
- Clean helmet with mild soap/water only
- Store helmet in a cool dry place

## Don't

- Wear anything under your helmet
- Attach anything to your helmet
- Wear a helmet that does not fit or cannot be adjusted properly
- Leave a helmet in direct sunlight or in a car on a sunny day

