# **Armour Up! How Shoulder Pads can Protect Ringette Players**





## **How Do Shoulder Pads Protect?**

#### **Protective Layer:**

Shields against cuts from skates, sticks, rings, boards, ice, and nets.

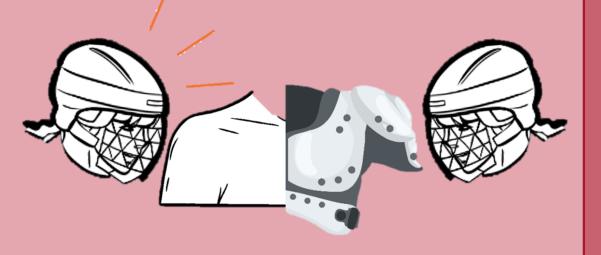


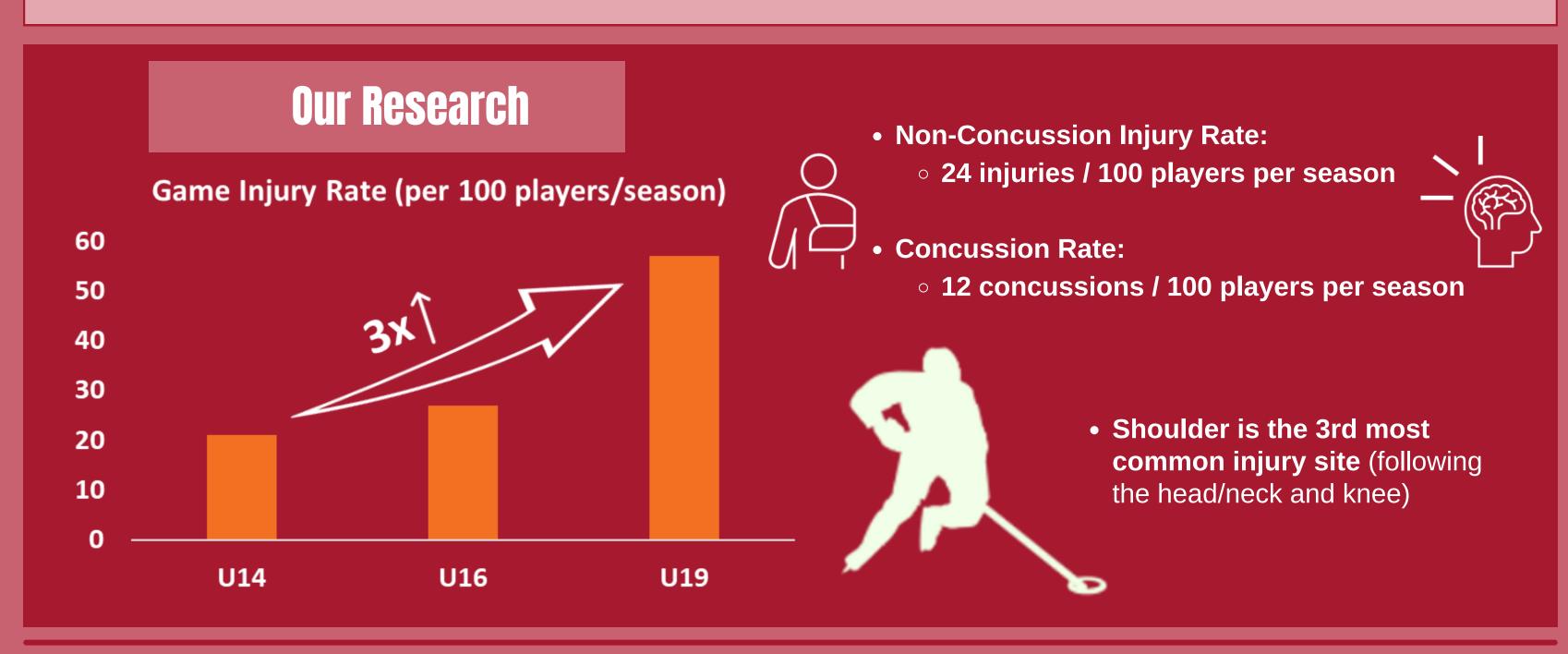
### **Impact Reduction:**

Absorbs and spreads shock, reducing pressure on impact.

#### **Head Impact Mitigation:**

Potentially reduces head impact intensity in shoulder-to-head player contacts.

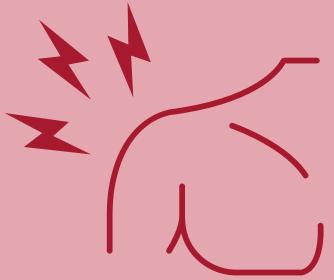




### **Our Research - Comparing Hockey**



Higher rate of injuries in University and youth ringette compared to female ice hockey



Shoulder injury rates in U19
ringette (no shoulder pads
required) were higher than the
rates in U18 male ice hockey
leagues that allowed body
checking (shoulder pads required)



#### References:

- 1. Design of a Shoulder Pad to Reduce the Risk of Injury in Men's Lacrosse. Buckley et al. 2019.
- 2. Ice hockey shoulder pad design and the effect on head response during shoulder-to-head impacts. Richards et al. 2016.
- 3. On thin ice: high injury and concussion rates in Canadian adolescent ringette. Heming et al. 2024
- 4. Higher Rates of Head Contacts, Body Checking, and Suspected Injuries in Ringette Than Female Ice Hockey: Time to Ring in Opportunities for Prevention. Heming et al 2022