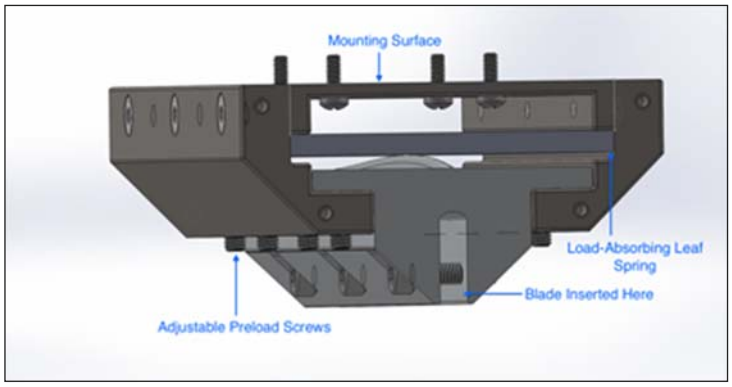
Shock Absorbing Figure Skate

Boot Attachment Prevents Skating Impact Injuries



BACKGROUND

The occurrence of overuse injuries (stress fractures, tendonitis, etc.) due to jump landings in elite figure skaters is common. If skaters had the ability to reduce the risk of such injuries, they would be able to spend more time practicing and less time recovering.

The ReLeaf Blade is a new type of figure skating blade that incorporates a load absorption device between the top of the skate blade and the bottom of the skate boot, so impact loads are not entirely transferred to the foot and leg. The absorption device takes the place of the mounting plates found on traditional figure skate blades.

SUMMARY

- Axiomatically designed figure skate blade absorbs loads normally transferred to the foot and leg during jump landings.
- Blade does not inhibit the ability of the athlete to skate and perform tricks normally
- Preload feature allows the device to be customizable for individual athletes to accommodate different body weights and personal preferences
- First prototype has been modeled in SolidWorks and manufactured using CNC machining

ADVANTAGE

- The design includes an adjustable preload, allowing the skater to adjust the blade for their individual body weights and absorption preferences.
- The blade seeks to reduce the instance of injuries, consequently reducing the amount of hospital visits, medical bills, and time away from training.
- The blade is tailored to absorb loads without impeding the skater's ability to execute jumps, spins, or other tricks.
- A one-directional friction component prevents the blade from aiding in the initiation of any jumps by restricting the ability for the spring to reload quickly.

FIND OUT MORE

Visit **releafblade.com** to learn more and check out a video of the ReLeaf Blade in action.

TITLE

The ReLeaf Blade: A Load Absorption Device for Figure Skate Blades

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