4D Skating Revolution

Advanced Slide Board Technology for Figure Skating

By

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www.4DSkating.com
4D – the Fourth Dimension: The Definition

A Fourth Dimension is Taking the Third Dimension and Rotating it onto its Mirror Image.
Skating Injuries

- Most competitive figure skating injuries occur from overuse.
- Technical advancements in complexity have increased physical burden.
- Injuries are found equally across all skating disciplines.
- Injuries incur during practice not competition and are more prevalent while learning new skills / maneuvers.
- Injuries occur equally between both male and female skaters although at different ages.
Skating Injuries

- Statistically speaking:
  - Ankles: 27.7%
  - Knee: 18.6%
  - Lower Back: 15.4%
  - Leg: 11.6%
- Of these injuries, 64% were repetitive or pre-existing conditions.
- Landing creates the greatest level of pain in injured skaters.
Skating Injuries

- Propulsion, spin, lift and jump mechanics play particular roles in back injuries.
- **Repetitive** jump landing on one leg and missed landings impact sacroiliac joint dysfunction.
- Joint, back and muscle injuries along with stress fractures plague large numbers of skaters.
Skating Injuries

- 16.7% of females and 13.8% of males reported a skating related stress fracture
- ~50% of all injuries occurred during summer training periods
- Stress fractures affect skaters of all ages, disciplines and gender
Skating Injuries Conclusion

- Excessive impact loading negatively effects the body, creating: shin splints, tendinitis, joint pain, arthritis, stress fractures, vertebrae damage, and muscle injuries

- Landing multiplies the vertical impact force and shock on the body

- **Repetitive** motions have proven to increase injury rates

- Increased physiological demands from rigorous training and increased technical requirements has negatively impacted skaters health


4D goals, mission and concepts

- Strength
- Stability
- Sustained Positioning
- Accuracy
Stronger Jump Mechanics
Reduced Impact Training
Improved Muscle Memory

Let the Revolution Begin