
Athletic Recovery Device

By:

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Overview

- Sports cause injury
- R.I.C.E.
 - Rest, Ice, Compression, Elevate
- Rest, Compression, and Elevation
 - Rest and Elevation are easy
 - Compression is difficult
- Why Focus on Ice?
- Common Icing Methods
 - Ice pack for 10-20 mins
- Advanced Icing Methods
 - Training Room
 - Cold baths, rehabilitory equipment



<https://www.jewettortho.com/wp-content/uploads/2018/06/knee.jpg>



https://sc01.alicdn.com/kf/HTB1PIklKpXXXaeXpXXq6xXFXXn.jpg_350x350.jpg

Current Methods and Problem at Union

- Current Method
 - Ice packs with plastic wrap
 - Machines for extremes
- Benefits:
 - Quick, Easy, Portable
- Draw backs:
 - Unsustainable
 - Expensive (machines)
- Alternatives
 - Messy, and expensive, narrow



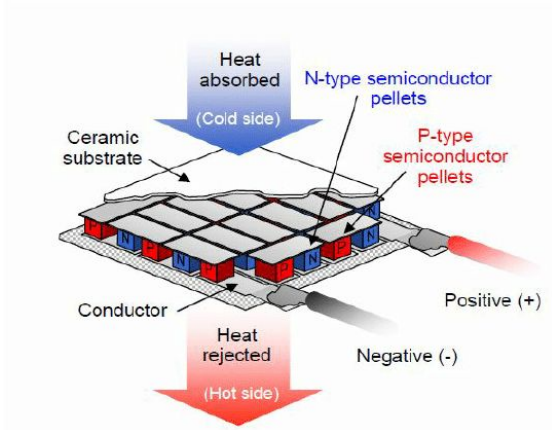
https://powerplay.us/wp-content/uploads/2017/10/IcePacks_Blog2.jpg

Project goals

- Uses cold therapy
 - Can handle multiple athletes consecutively
- Needs to be affordable
- Must be sanitary to use and easy to clean
- Designed with sustainability in mind

Literature review

- Currently on the market
 - GameReady
 - PowerPlay
- Alternate form of cooling
 - Thermoelectric Modules (Peltier Effect)



<https://www.amazon.com/Game-Ready-Knee-Wrap-Size/dp/B07J5T6GPX>



<https://recreationofla.com/product/powerplay/>

Performance

- User-friendly interface
 - Allows for safe use with limited supervision
- Temperature Regulation
 - Safe temperature for specified time period
- Can operate under long use.
 - Quick and easy to clean between users
 - Able to maintain desired temperature for prolonged use



https://lh3.googleusercontent.com/proxy/qkgxlm93fLG38NVPaHqG_UiBn6nKl9BukCqnFyuR3lyO1BKARfLO-Zzc9XO96bKp5AaArkta_DZYswXbDu-bW746sXE6Lg1nUv-KiriOlhBfPOdV4kVAFOrsOPBlheogO9ue6CX3ZlqlxO-ZtTnwSibE229ZgRn5Z7QninY

Questions?