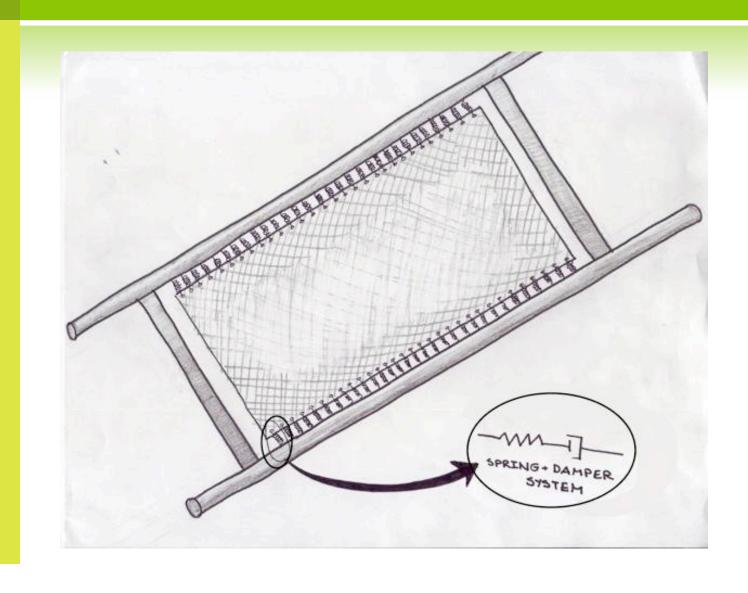
GREEN B SKETCH MODEL: DAMPED STRETCHER

Kent Willis Theresa Dixon Neeharika Bhartiya Raphael Moyer

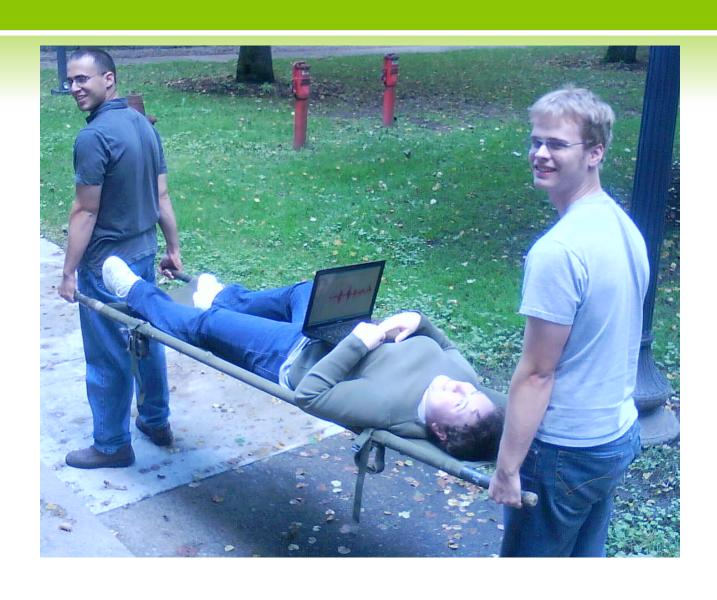
THE PROBLEM

Current stretchers are uncomfortable and the large forces they cause can exacerbate spinal and neck injuries

THE IDEA: A DAMPED STRETCHER



'Typical' Stretcher Demonstration

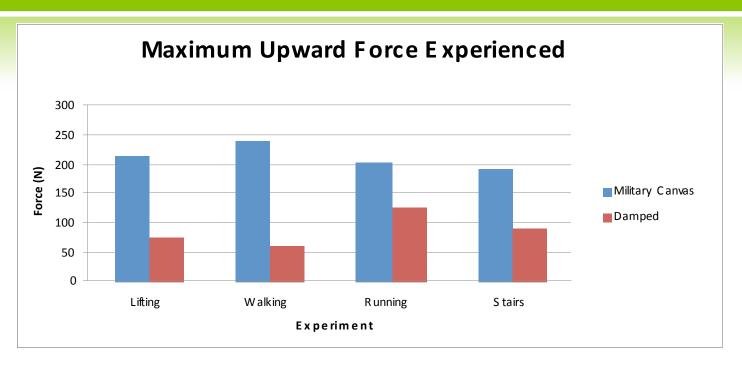


The Damped Stretcher

A proof of concept that damping could significantly reduce forces



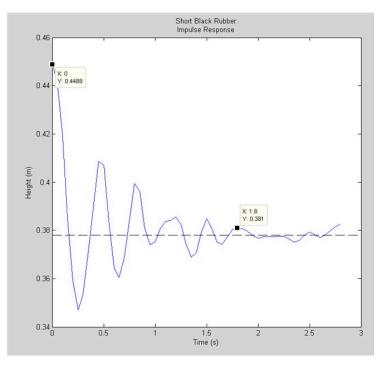
TESTING RESULTS

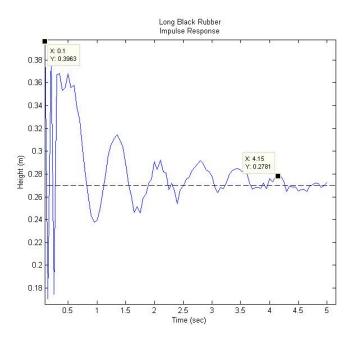


Test Subject: There's a palpable difference between the two—damped, despite the hard backboard, is more comfortable

DAMPING

If you're worried about resonance...don't. Frequency of someone walking: 2 Hz; natural frequency of our dampers: 1.2 Hz





BENCHMARKING

The Talon Stretcher: Foldable, Undamped, and \$1000



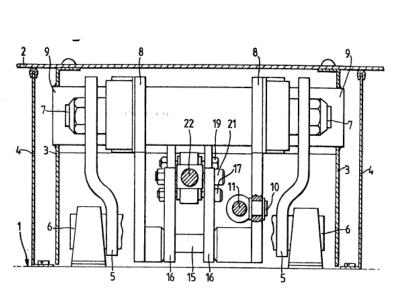


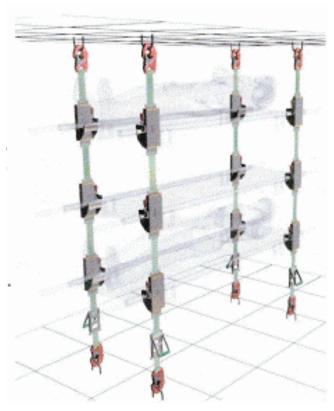
Poleless Stretcher: "You might as well just use a poncho"



BENCHMARKING

Damped, but by no means portable





MARKET DATA

- 40,000 ambulances in the U.S.
- 4,500 hospital emergency rooms
- 12,000 spinal cord injuries per year—and most have to be transported by stretcher
- 10,000 Army combat vehicles

© Contact: Gretchen Schmeider, EMT (585) 613-5867

FUTURE PROBLEMS

- Lightweight
- Portable
- Reduce impact with ground
- Damping in multiple directions