## Problem Statement:

The problem we are dealing with is the lack of lumbar support in backpacks for people who use backpacks on a daily basis which creates asymmetric backs and problems such as scoliosis, and chronic back pain. The problem occurs to people all over the world, especially in students and workers. This problem starts to occur as early as kindergarten when children start to use backpacks and has been around since the invention of backpacks.
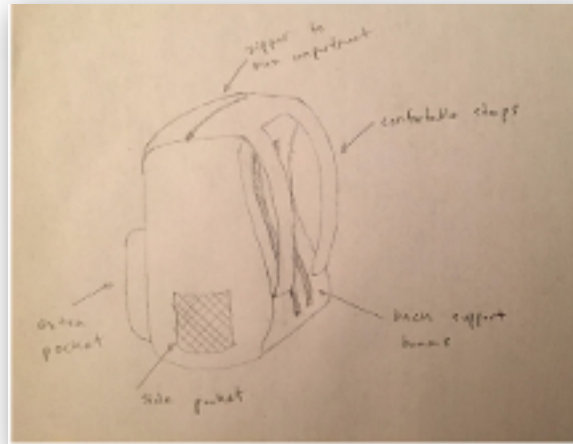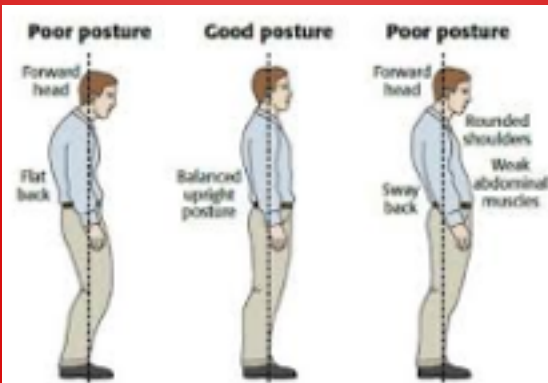
LNJ PACKS

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LNJ Packs

"Backpacks to change the world."

Why?

Statistics and Background Information

How?

Back pains are one of the worlds leading causes of disability and lost workdays. Back pains can linger for years and affects life in all aspects. Backpacks can make the difference between a well formed back and healthy back and an unhealthy one.

- **Inability to sit on chairs for long periods**
- **Backpacks influence kids' back growth starting from kindergarten**
- **Lost workdays due to backpains**
- **Back posture signifies strength**
- **Strong posture garners more respect**

Spines consist of 33 bones called vertabre and these vertabre bend in accordance to where the stress is needed. Backpacks are one of the most influencing factors of the structure on your back.

- **Back pains account for 264 million lost work days per year**
- **Over 80% of Americans have reported to feal with backpains**
- **Poorly designed backpacks can cause scoliosis, flat back syndrome, and herniated disks.**

Our solution is to make a new backpack that is formed to fit with a humans natural spine. The backpack will have lumbar support to allow and maintain good posture. The backpack will also be made of mesh so that the persons back can "breathe" and avoid sweat. Along with solving the problem, It will be cheap and affordable for everyone to own.

- **Start with a regular backpack**
- **Replace back mesh with a full lumbar support system**
- **Cheapen the cost**