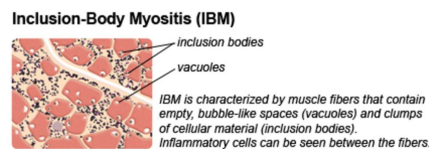
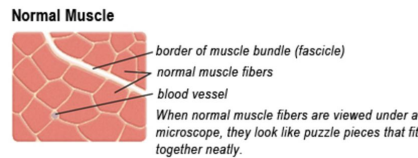


## Jasmine

- Inclusion Body Myositis (IBM)
  - Myo: muscle / itis: inflammation
  - inflammatory condition of muscles or associated tissues that causes weakness
  - Clumps of discarded cellular material accumulates in muscle tissues
  - Weakness found in muscles of *wrist, fingers, upper thigh, muscle that lift foot*
  - Onset typically after 50 years old



Muscular Dystrophy Association Inc. 2017

## **Current Transfer Assistive Devices**

SystemRoMedic - FlexiGrip

<https://www.handicare.com/en/products//transfer-and-lifting/sittostand-aids/systemromedic-flexigrip/c-39/c-204/p-288>

- Used for individuals who have difficulty getting out of bed
  - Do we want to focus exclusively on process of sitting up out of chair?
- User gradually pulls themselves up from lying to sitting position
- Strengthens arm and stomach muscles of user
- FlexiGrip attached to bed and user grips handles

SystemRoMedic - ReTurn7500i

<https://www.handicare.com/en/products//transfer-and-lifting/sittostand-aids/systemromedic-return7500i/c-39/c-204/p-293>

- Aids in sit to stand, especially for those in wheelchair
- User can grip onto handles and use rising ladder to climb their hands up
- Plate on floor locks, but probably needs another individual to unlock it once individual is standing
- Slightly big and bulky, but provides knee pad support and can easily be adapted for different users
- Multiple uses: bed to wheelchair, rising to sitting, positioning within a chair

Prism Medical - SA 400 Sit to Stand Lift

[https://www.youtube.com/watch?v=\\_xVpPebkj9E](https://www.youtube.com/watch?v=_xVpPebkj9E)

Important need: transitions *without* reliance on another individual

Yoonbo

**We need to understand wheelchair, not focusing on the solution ONLY.**

- Wheelchair (manual wheel chair & power wheelchair)
- Advantages and Disadvantages of Wheelchair
  - Manual wheelchair (+) : cheap, portable
  - Manual wheelchair (-) : muscles pain
  - Power wheelchair (+): safe, easy, and comfortable
  - Power wheelchair (-) : expensive, not easily carried
- Wheel chair measurement -  
[https://www.quickie-wheelchairs.com/info/measuring-guide?utm\\_content=buffer3f8b8&utm\\_medium=social&utm\\_source=pinterest.com&utm\\_campaign=buffer](https://www.quickie-wheelchairs.com/info/measuring-guide?utm_content=buffer3f8b8&utm_medium=social&utm_source=pinterest.com&utm_campaign=buffer)

### **Current Transfer Assistive Devices**

Karman Power Assisted Stand-Up Manual Wheelchair -

[https://medmartonline.com/xo-101n-9468?utm\\_source=google\\_shopping&utm\\_medium=cpc&utm\\_source=adwords&utm\\_campaign=ecom+shopping+high+margin&utm\\_content=money+makers&gclid=CjwKCAjwylHPBRAIEiwAHPS-GEVd7OsLeQKOzJKm6DSkER-tJKZRS5Lkqfl-9I6-vbfOd952uJ0chxCzpYQAvD\\_BwE](https://medmartonline.com/xo-101n-9468?utm_source=google_shopping&utm_medium=cpc&utm_source=adwords&utm_campaign=ecom+shopping+high+margin&utm_content=money+makers&gclid=CjwKCAjwylHPBRAIEiwAHPS-GEVd7OsLeQKOzJKm6DSkER-tJKZRS5Lkqfl-9I6-vbfOd952uJ0chxCzpYQAvD_BwE)

- Price - \$6,500
- Lift up the wheelchair automatically

Purdue ME research -

<https://www.youtube.com/watch?v=vtf6l4JDZTQ>

- Engaging Break
- Extend Armrests
- Lock Crossbar
- Deploy Scissor Mechanism
- Activate Seat Lift
- Remove Walker

Current Problem:

- She currently uses her **Freedom Chair** to lift her into a standing posture.  
How? When?
- Leg weakness

**Hyeongju Choi**

- Gas spring to slow down her sitting from standing.

<https://www.youtube.com/watch?v=4WNRAm6RGUo>

- This video shows how gas spring can slows down her sitting down from standing  
Instead of falling or plopping  
[https://www.youtube.com/watch?v=UHgy\\_bziA3Y](https://www.youtube.com/watch?v=UHgy_bziA3Y)
- The pressure is adjustable so we can slow down as slow as she wants  
[https://www.youtube.com/watch?v=\\_6dvFjHR4mA](https://www.youtube.com/watch?v=_6dvFjHR4mA)
- Website that sells gas springs (customizable and sells gas springs up to 23 inch  
tall)  
<http://www.indgassprings.com/how-gas-springs-work.html>