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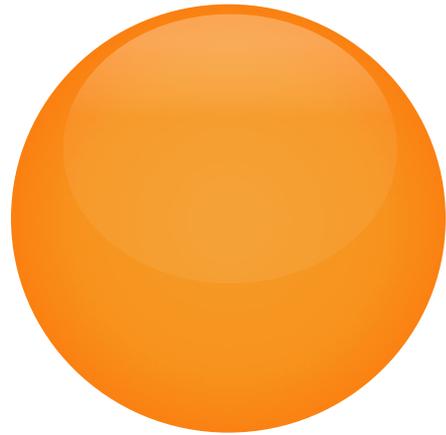


## Movement Disorder Neurologists

Laurice Yang, MD, MHA

Hok Morita, MD, MS





# **NUTRITION IN HUNTINGTONS DISEASE**



# Food Intake

Lack of  
voluntary  
control of  
movements

Depression  
or Anxiety

Medication

Cognitive  
Issues

Involuntary  
movements

Behavioral  
Issues

Chewing &  
swallowing  
problems

# Treatment

- Higher total energy requirement
- Ratio of fat and carbohydrate despite sugar cravings
- Increased animal protein requirement
- 30-35ml fluid intake/kg

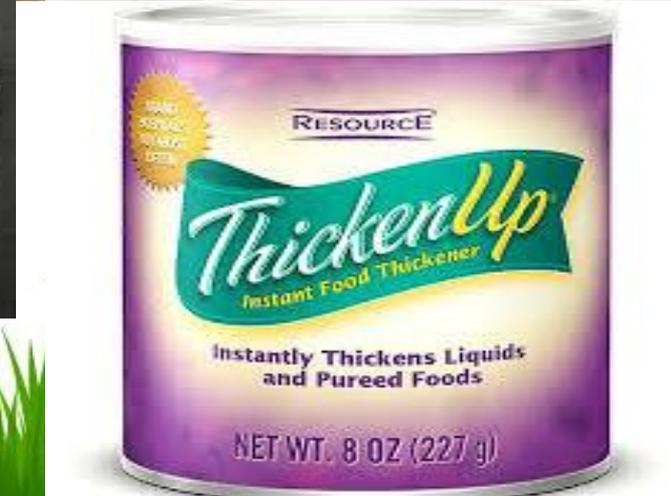
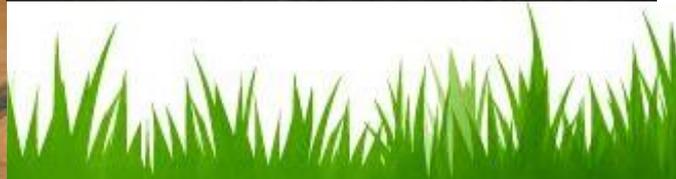


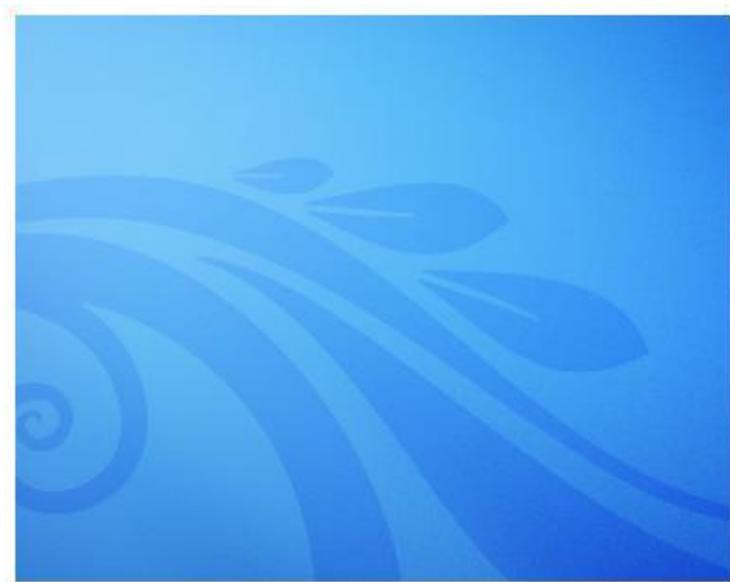
Color	Phytonutrient	Benefits
Red	Lycopene	DNA & the urinary tract
Purple	Resveratrol Flavanoids	Heart, brain, bone, arteries, cognition
Green	Lutein, isoflavanoids	Eye, blood vessel, cells, liver, and lung. Helps heals wounds
White	Allyl sulphides	Fights cancer
Yellow	Alpha & Beta Carotene, leutin	Immune function, growth and development



# Mid-Stage Diet

- Moist and soft foods
- Food should be steamed before blending to prevent loss of nutrients
- Upright position
- Swallowing precautions





# HDSA Northern CA Convention 2016

Importance of Exercise/PT/OT and Huntington's disease



Laurice Yang, MD MHA

May 20, 2016



# Agenda



Huntington Disease Society of America 2016





# The Science Behind Exercise

Its more than just exercising

# The Science Behind Exercise

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- Exercise is **NOT** just for strength and balance
  - Studies have shown that with exercise can:
    - Increase **nerve growth factors**
    - Increased **blood flow** to the brain
      - Delivery these growth factors

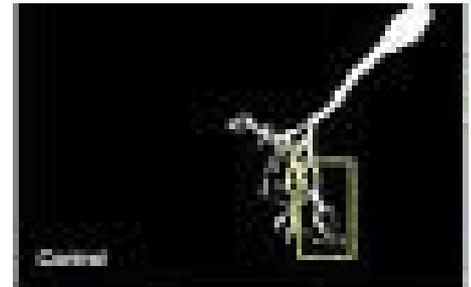
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- **NEUROPROTECTIVE**
  - Protects the brain from insult

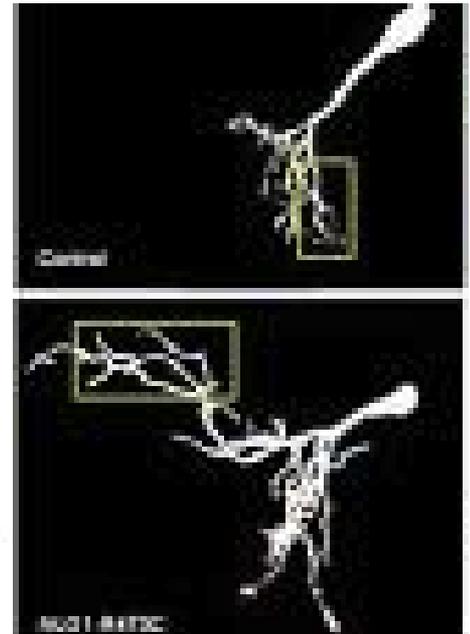
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      - Non specific lower back pain
        - Exercise group – experienced less pain
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PAIN +  TOLERANCE =  SUFFERING

# The Science Behind Exercise

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- Exercise is **NOT just for strength and balance**
  - Studies have shown that with exercise can:
    - **IMPROVE Depression**
      - PGC-1alpha is produced in exercise
      - **ANY exercise** shows an improvement

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  - **IMPROVE immune systems**
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  - Shown to **increase NK cells ( Natural Killer)**
    - To monitor “bad” cells

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  - **IMPROVE immune systems**
    - Natural anti-inflammatory proteins are increased
  - Shown to **increase NK cells ( Natural Killer)**
    - To monitor “bad” cells
    - maybe decrease chance of cancer

# The Science Behind Exercise

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- Exercise is **NOT just for strength and balance**
  - Studies have shown that with exercise can
    - patients who used **treadmill:**
      - **Greater manual dexterity**
      - Neuroimaging showed increased activity
        - In the motor cortex in both arms and legs

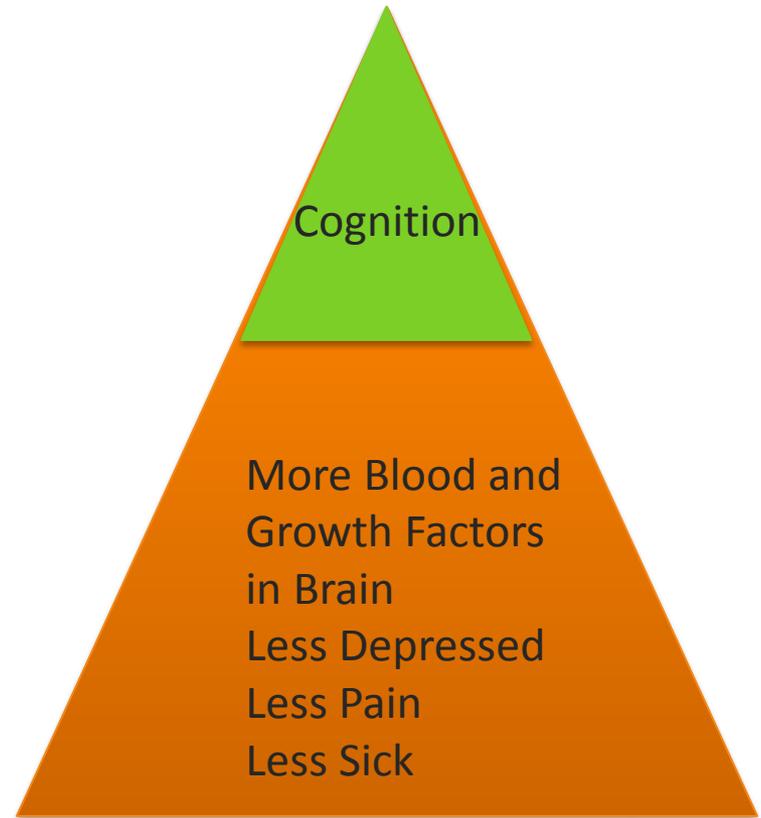
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  - Decision making
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  - Improve DEPRESSION

# The Science Behind Exercise

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- Exercise is **NOT** just for strength and balance
  - PROTECTS nerves
  - Improve PAIN
  - Improve DEPRESSION
  - Improves IMMUNE SYSTEM
  - Improves DEXERITY/MOVEMENTS in all four limbs
    - Not just the limbs exercised
  - Improves COGNITION

# Agenda





# Fall Prevention

Risk Factors for Falling and What To Do About It

## Presentation Goals

- 1) Recognize the **RISK FACTORS** for falls
- 2) Describe how **physical and occupational** therapist can help you reduce falls

# Fall Prevention

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## The Facts

- **1/3 of seniors** over 65 and over fall each year
- In 2015, **2.8 million nonfatal falls** among older adults were treated in ER
- In 2015, **\$30 billion** spent on medical costs

# Fall Prevention

- Even if you are not injured from your fall – will develop:
  - **THE FEAR OF FALLING**

## **Fear of Falling**

**Moving Slower  
Avoid movement  
De conditioned  
Loss of Strength**



**Increased Fall Risk**

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# Fall Prevention

- Even if you are not injured from your fall – will develop:

HOW DO  
WE STOP →

~~• THE FEAR OF FALLING~~

## Fear of Falling

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Avoid movement  
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Increased Fall Risk

# Fall Prevention

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Why do Falls Happen?



# Fall Prevention

Why do Falls Happen?

- Physical risk factors

- Changes in your body that increase your risk for a fall



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- Behavioral risk factors

- Things we do or don't do that increase our fall risk

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Why do Falls Happen?



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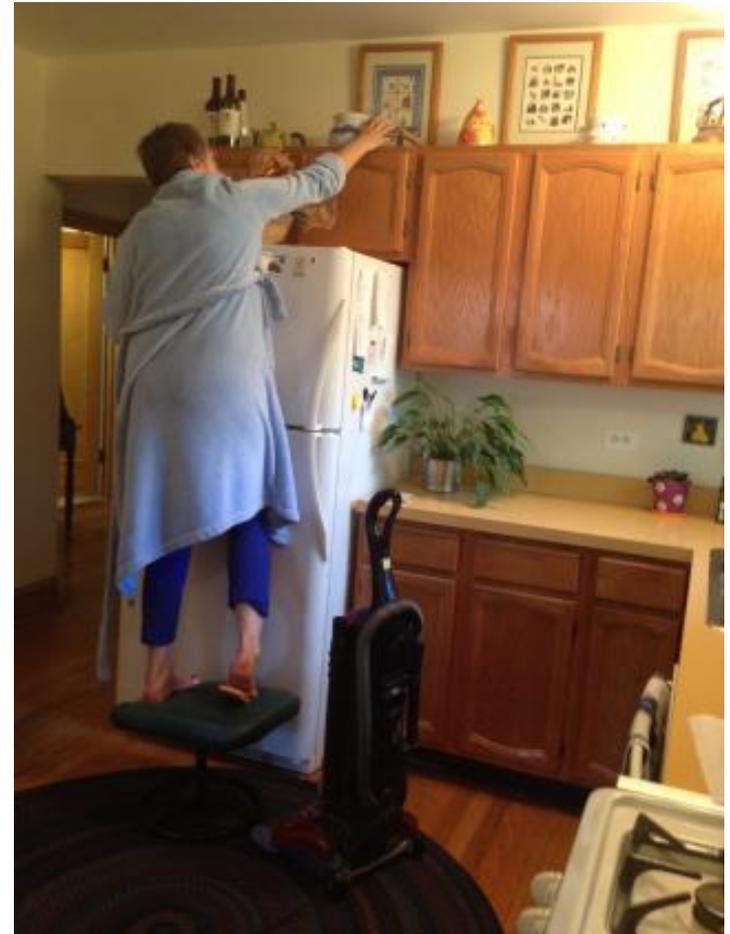
- ***Environmental risk factors***

- **Hazards** in our home or community

# Fall Prevention

Take a look at this scene:

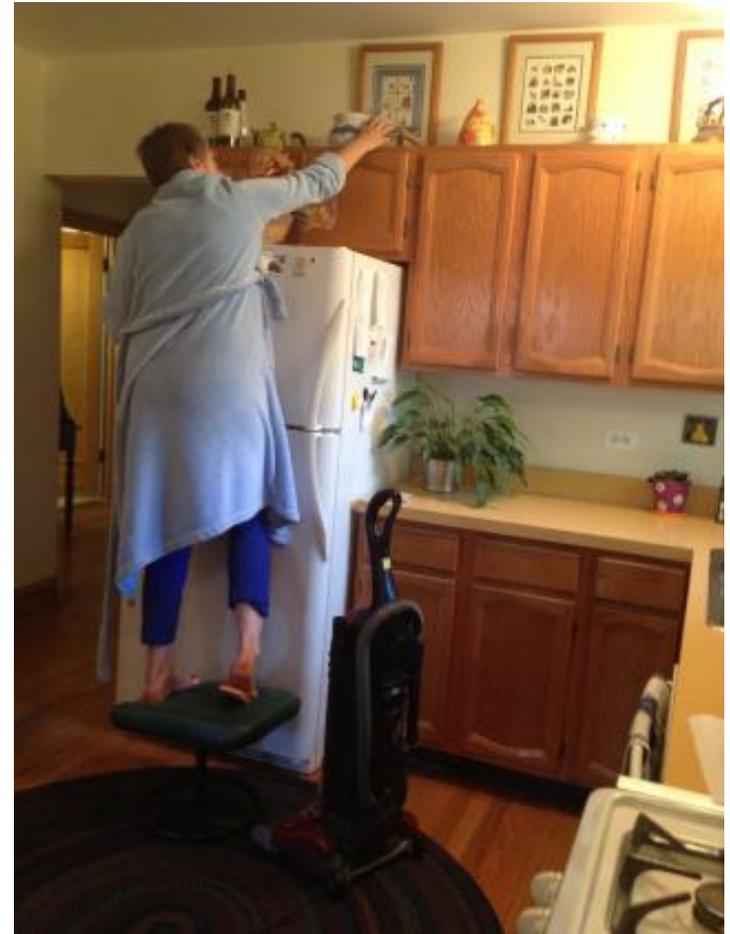
- What are **environmental risk** factors?



# Fall Prevention

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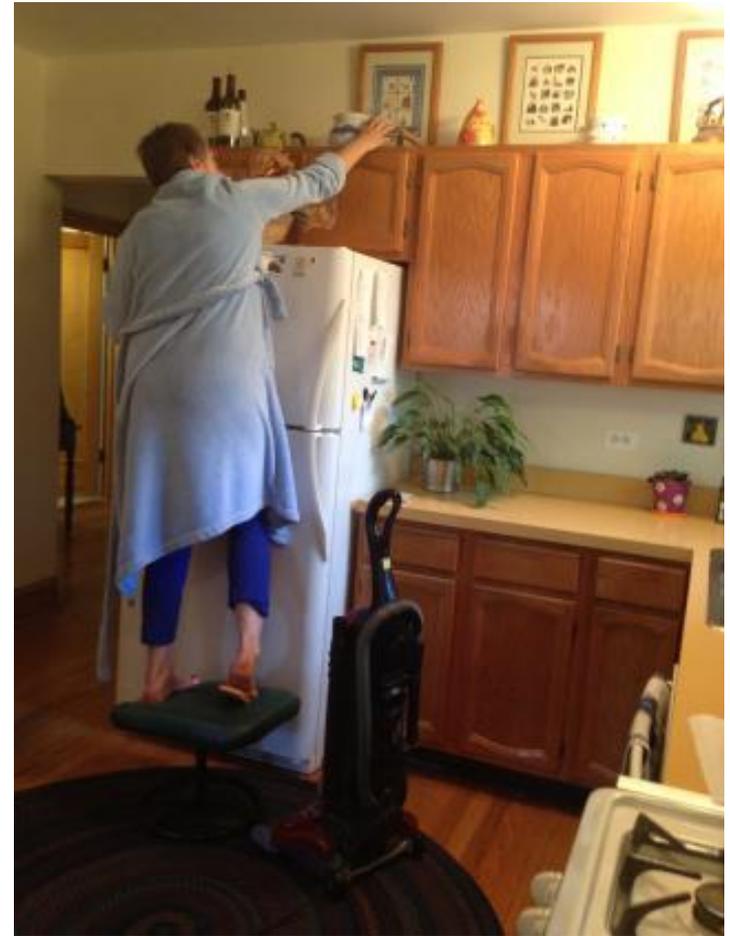
- What are **environmental risk** factors?
- What are **behavioral risk** factors?



# Fall Prevention

Take a look at this scene:

- What are **environmental risk** factors?
- What are **behavioral risk** factors?
- If she has HD, what **physical risk factors**?



## Fall Prevention - What will you do to **MINIMIZE** these risks?

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- What will you do to **MINIMIZE** these risks?
- Physical risk factors
- Behavioral risk factors
- *Environmental risk factors*

# Fall Prevention - What will you do to **MINIMIZE** these risks?

---

- **Physical risk factors**

- Understanding your body
- Understanding **your NEW limitations**/capabilities (PT/OT)
- Common in HD patients
  - chorea, cognitive, balance and gait issues

# Fall Prevention - What will you do to **MINIMIZE** these risks?

## •Physical risk factors

- Understanding your body
- Understanding **your NEW limitations**/capabilities (PT/OT)
- Common in HD patients
  - chorea, cognitive, balance and gait issues
- **Other medical issues**
  - Vision, Inner Ear, Sensation Problems
  - Arthritis, Past broken bones, Pain
  - Alcohol Use, Hydration
  - Foot Wear
- **Medications**
  - Working with your doctor

## Fall Prevention - What will you do to **MINIMIZE** these risks?

---

- Physical risk factors
- Behavioral risk factors
  - Things we do/don't do that increase fall risk
  - Not knowing ( ie: OT / PT)
    - Tap into resources available to you

## Fall Prevention - What will you do to **MINIMIZE** these risks?

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- Physical therapy (PT)
  - walking and balance/ strengthening core

## Fall Prevention - What will you do to **MINIMIZE** these risks?

- Physical therapy (PT)
  - walking and balance/ strengthening core
  - Fall prevention
    - Training skills and strength to prevent falls
- Teaching you what you **CAN/CANNOT** do given you limitations
  - How to fall more safely
  - How to get up from a fallen position

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Fear of  
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# Fall Prevention - What will you do to **MINIMIZE** these risks?

- Physical therapy (PT)
- Occupational therapy (OT)
  - walking and balance/ strengthening core

## –**EDUCATION**

- consequences of falling
- Awareness of your **specific risk factors**
  - Your physical limitations
  - Your environment



# Fall Prevention - What will you do to **MINIMIZE** these risks?

- Physical therapy (PT)
- Occupational therapy (OT)
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## –**EDUCATION**

- consequences of falling
- Awareness of your **specific risk factors**
  - Your physical limitations
  - Your environment





## Fall Prevention - What will you do to **MINIMIZE** these risks?

---

- Physical risk factors
- Behavioral risk factors
  - Things **we do/don't do** that increase fall risk
  - need more education
    - Use your resources available to you
      - PT/OT to help you understand you better

# Fall Prevention - What will you do to **MINIMIZE** these risks?

- Physical risk factors
- Behavioral risk factors
- Environmental risk factors
  - Hazards in our home
    - **70% falls in the Home/30% in public areas**
      - Poor Lighting (ie nightlights)
      - Clutter on the floor
      - Beds/nightstand proper height
      - Items hard to reach
    - Hazards in the community
      - Cracked sidewalks
      - Lack of hand rails
      - Safe public areas



## Fall Prevention - What will you do to **MINIMIZE** these risks?

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### Conclusions:

- **Physical risk factors**

- Changes in your body that increase your risk falls

- **Behavioral risk factors**

- Things we do or don't do that increase our fall risk

- ***Environmental risk factors***

- Hazards in our home or community

**EDUCATE YOURSELF!!**

# Agenda



Hope and Cope 2015



# Caretakers and Therapy

Caretakers role in Therapy

# Caregivers

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- The medical team's Eyes and Ears

# Caregivers

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- The medical team's Eyes and Ears
- Execute treatment plan as well
  - Therapy plans and instructions
  - Understanding risk factors
  - Encouraging and reinforce importance of exercise

# Caregivers

## • **Working as a Team**

- Caregivers
- Physicians
- Nurses
- Physical Therapist
- Occupational Therapist
- Speech Therapist
- Social Worker
- Psychologist
- Spiritual Counselors
- Nutritionists
- Support Groups
- Senior Center



# Conclusion:

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- Exercising
  - More than just strengthening
  - Protects your brain and body on a microscopic level
- To Prevent Falls
  - Educating yourself
  - Know your risk factors
    - Physical, Behavior, Environmental
- Caregivers
  - Vital part of Therapy Team

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Remember...

Falls **CAN BE** Prevented

Take charge of your **HEALTH**  
utilize the **RESOURCES** around you

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Thank you!!



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