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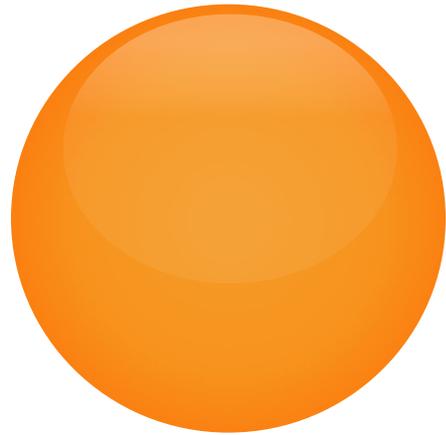


Movement Disorder Neurologists

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

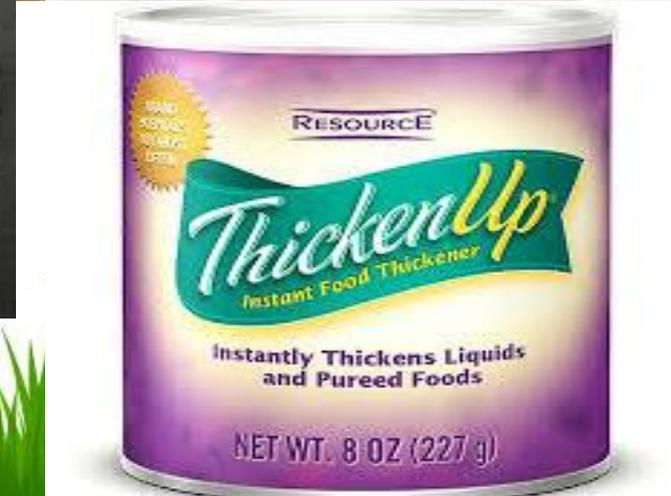


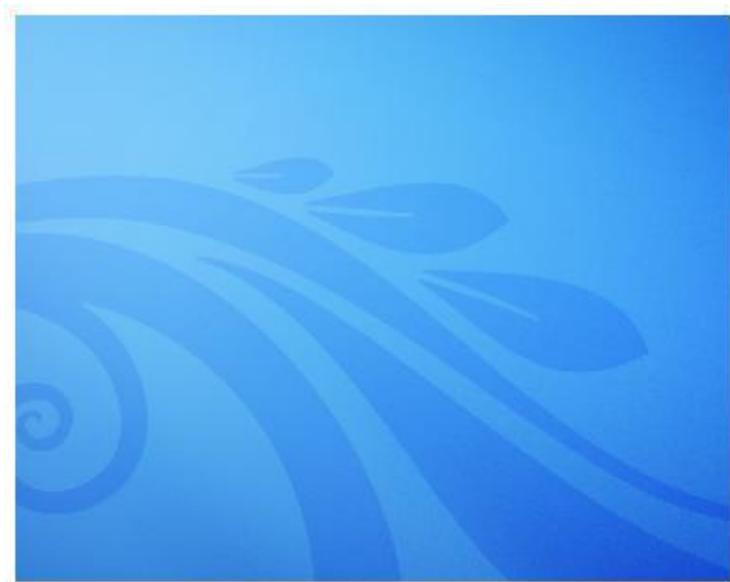
Color	Phytonutrient	Benefits
Red	Lycopene	DNA & the urinary tract
Purple	Resveratrol Flavanoids	Heart, brain, bone, arteries, cognition
Green	Lutein, isoflavanoids	Eye, blood vessel, cells, liver, and lung. Helps heals wounds
White	Allyl sulphides	Fights cancer
Yellow	Alpha & Beta Carotene, leutin	Immune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

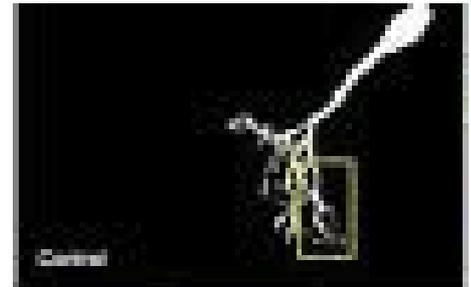
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 - Studies have shown that with exercise can:
 - Increase **nerve growth factors**
 - Increased **blood flow** to the brain
 - Delivery these growth factors

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

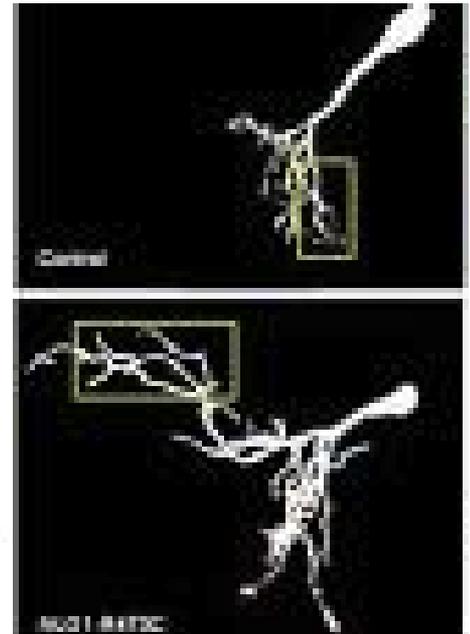
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 - **IMPROVE Pain**
 - Non specific lower back pain
 - Exercise group – experienced less pain
 - **Neuroimaging** supports pain center **less activated**

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PAIN +  TOLERANCE =

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PAIN +  TOLERANCE =  SUFFERING

The Science Behind Exercise

- 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

The Science Behind Exercise

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

The Science Behind Exercise

- Exercise is **NOT just for strength and balance**
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 - 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

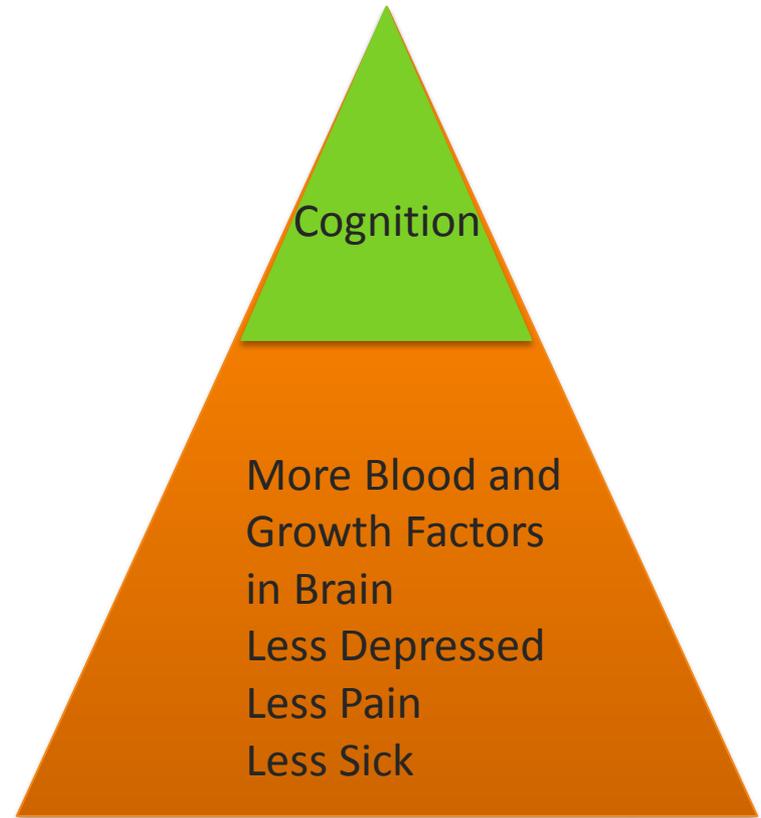
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 - patients who used **treadmill:**
 - **Greater manual dexterity**
 - Neuroimaging showed increased activity
 - In the motor cortex in both arms and legs

The Science Behind Exercise

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- **Cognition improves**
 - Decision making
 - Memory

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 - PROTECTS nerves
 - Improve PAIN
 - Improve DEPRESSION

The Science Behind Exercise

- 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

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

Fall Prevention

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Increased Fall Risk

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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Increased Fall Risk

Fall Prevention

Why do Falls Happen?



Fall Prevention

Why do Falls Happen?

- Physical risk factors

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



Fall Prevention

Why do Falls Happen?



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

Fall Prevention

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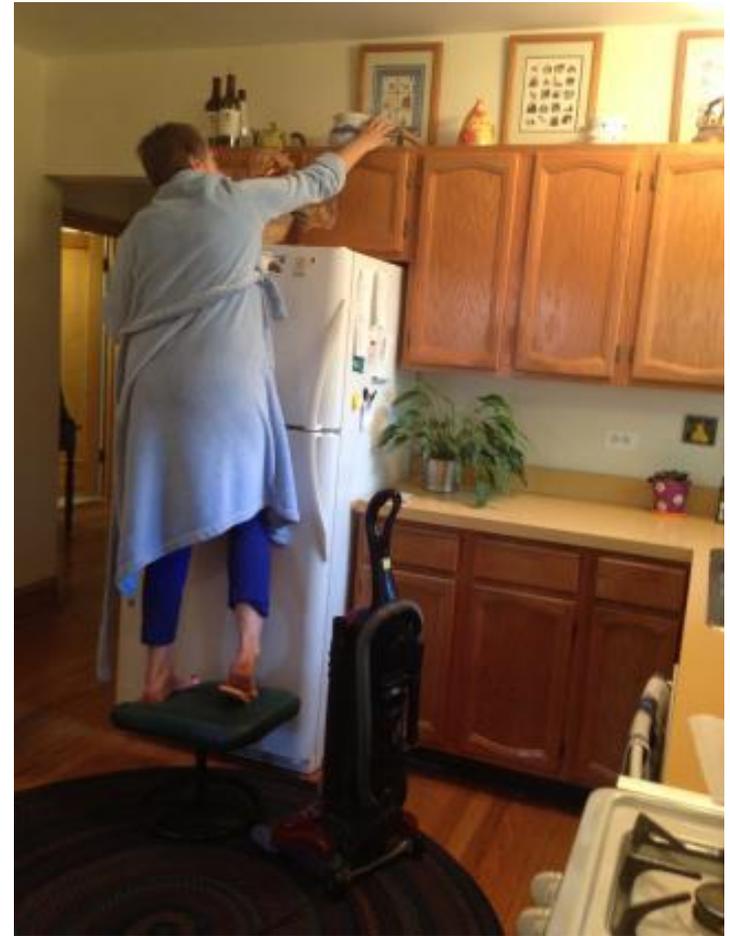
- **Environmental risk factors**

- **Hazards** in our home or community

Fall Prevention

Take a look at this scene:

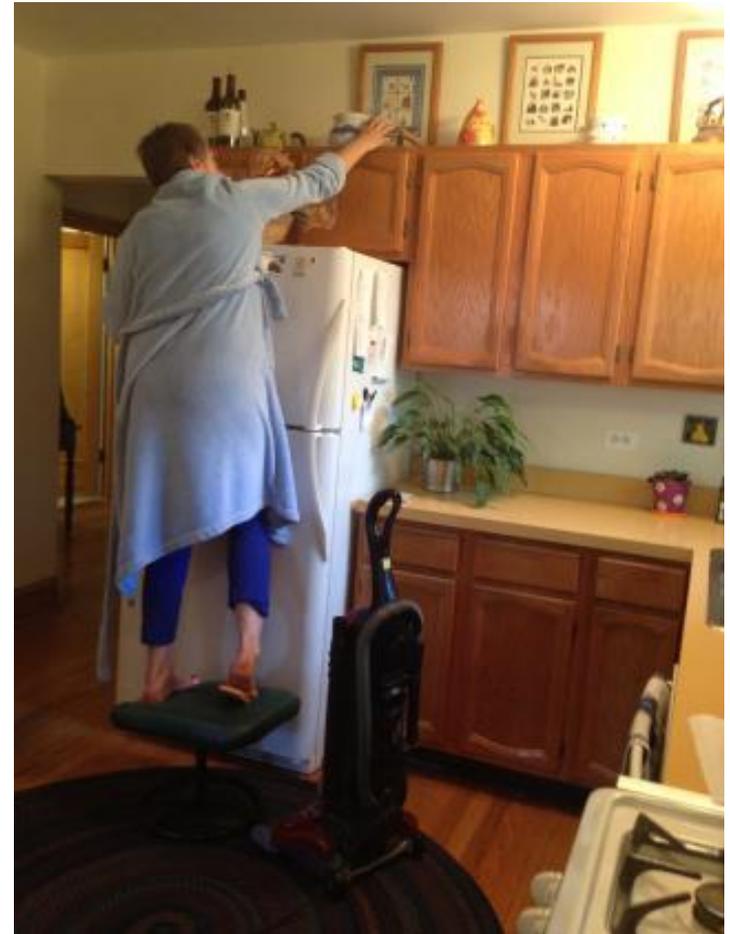
- What are **environmental risk** factors?



Fall Prevention

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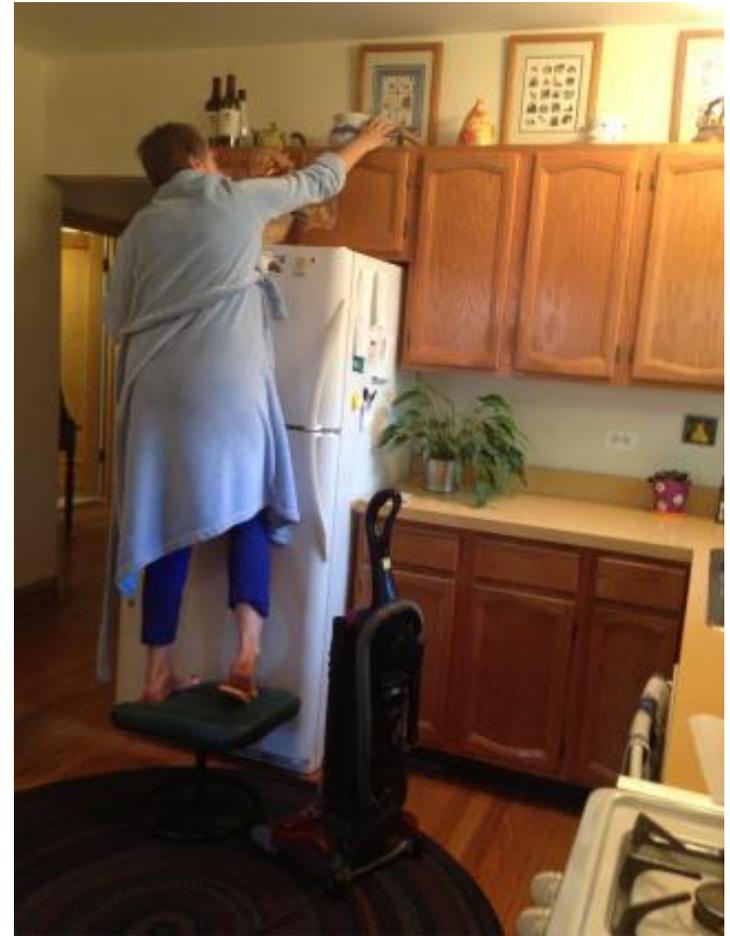
- What are **environmental risk** factors?
- What are **behavioral risk** factors?



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?

- 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?

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

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

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 - 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
falling

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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)
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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?

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

- The medical team's Eyes and Ears

Caregivers

- 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:

- 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

Remember...

Falls **CAN BE** Prevented

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

Thank you!!



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