

**STAY INFORMED:
THE IMPORTANCE OF FALLS
ASSESSMENT AS A MATTER OF
PRACTICE**

Learn To Be Fall-free This Fall



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**IT'S A GREAT DAY TO
BE FALL-FREE**

- National Falls Prevention Awareness Week
September 20 - 24, 2021
- Idaho celebrates Falls Prevention Awareness Month
September 2021



2





SHARE YOUR THOUGHTS...

- Select the option you most agree with
- Click or tap the SUBMIT button

3

COMMUNICATION & QUESTIONS

Using Chat

- Use chat to comment & discuss with others during the seminar
- It's OK to chat but don't get too distracted!
- Alert us of issues with sound or video by sending a chat message

To Display Chat:

- Click/tap Chat button on bottom center of screen *OR*
 - Press ALT+H

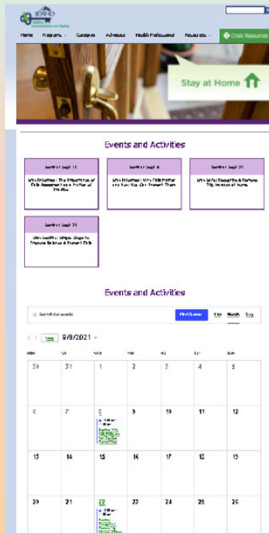
Questions

- Formal Q&A at end of session
- Type questions into the chat
- Our talented Q&A monitor will collect them and present them to the panelists
- The Recording and resource Guide will be available after the seminar for your review

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SEMINAR MATERIALS



Materials available on
ICOA FPAM website

<http://aging.idaho.gov/campaign/fpam>

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TECHNICAL EMERGENCY PLAN

- If you are disconnected, log back in
- If you can't use internet, you can call in:

(253) 215-8782

Meeting ID: 811 3526 9505 and Passcode: 813275 OR

One tap mobile: +16699006833,,81135269505#,,,,*813275#

If we lose a panelist, they will rejoin ASAP or we will adjust

- If we lose our "mother ship", we have people who can take over
- If solar flares shut down this hemisphere, we will reschedule



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SEMINAR RECORDING

The seminar is being recorded

- You will receive a link via e-mail
- Also available from ICOA FPAM website





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WHAT WE'LL BE COVERING

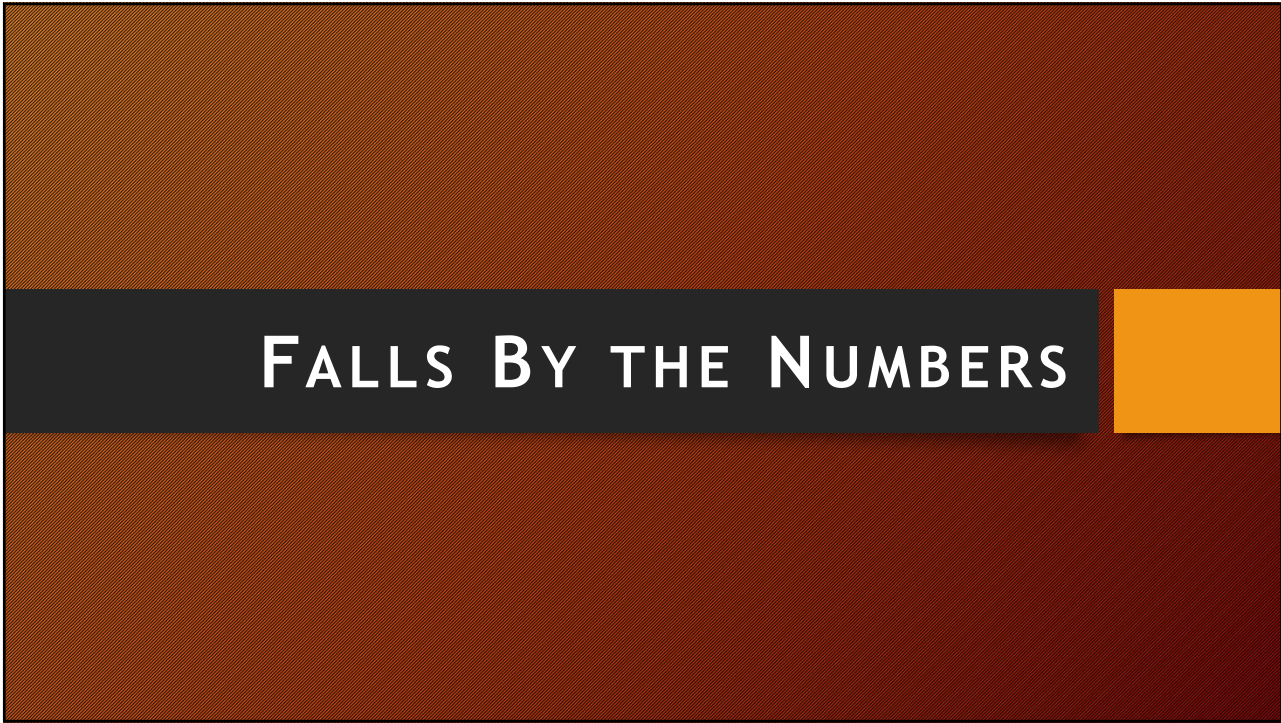
- Falls By the Numbers
- The Physical Outcomes of Falls
- The Invisible Factors: The Falls Cycle & Medications
- A Matter of Balance: Food, Water, Flexibility & Strength
- How Chronic Conditions Impact Fall Risk
- Assessment & Referral As Part of Practice
- Panelist Q&A



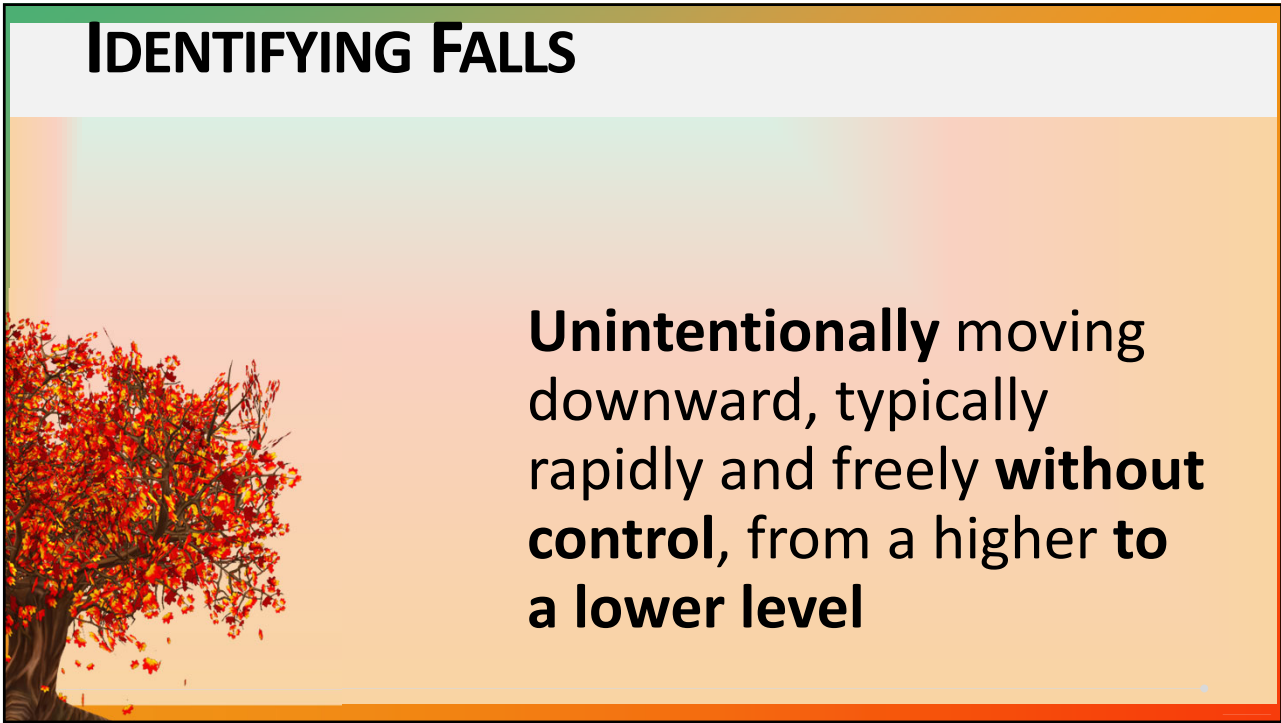
Idaho Commission on Aging

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SOME BASIC STATS

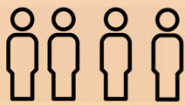
- Falls are the #1 cause of accidental injury and death in people 65+
- Fall rates increase with age
- Falls are NOT a normal part of aging
- 1 in 3 older adults age 65+ will experience a fall each year
- Falls often result in loss of independence and reduced quality of life

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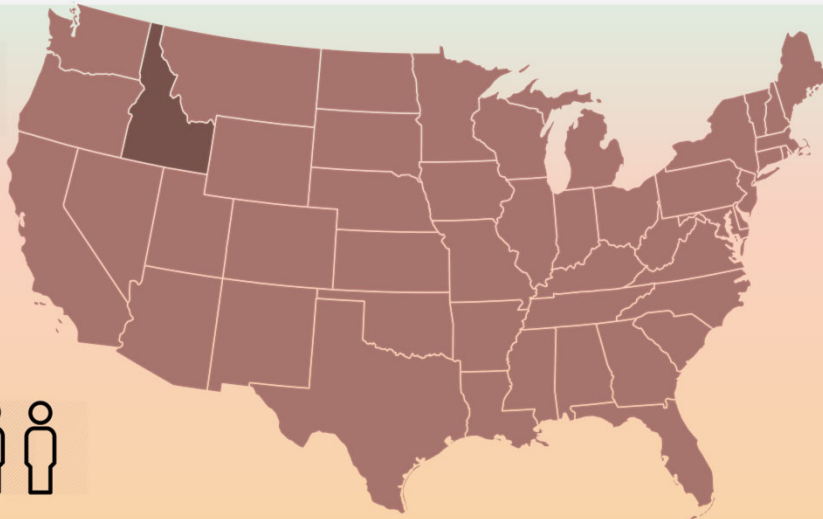
WHERE IDAHO STATS FALL



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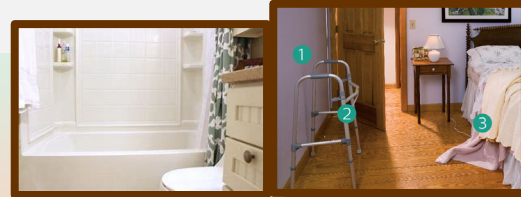


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RISK FACTORS FOR FALLS

- Unfamiliar environment
- Clothing
- Household hazards
- Medication
- Poor nutrition & hydration
- Diminished fitness & mobility
- Chronic medical conditions

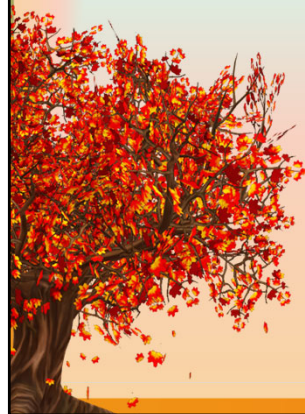


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GOOD NEWS: IT DOESN'T HAVE TO BE THIS WAY!

We can help reduce falls by assessing for fall risk, providing education & making referrals.


All falls are preventable!



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PHYSICAL OUTCOMES OF FALLS



Dr. Rodney Bates
*Primary Care, Chair
Assistant Professor, Internal Medicine
Fellow, American College of Osteopathic internists (FACOI)*
Idaho College of Osteopathic Medicine (ICOM),

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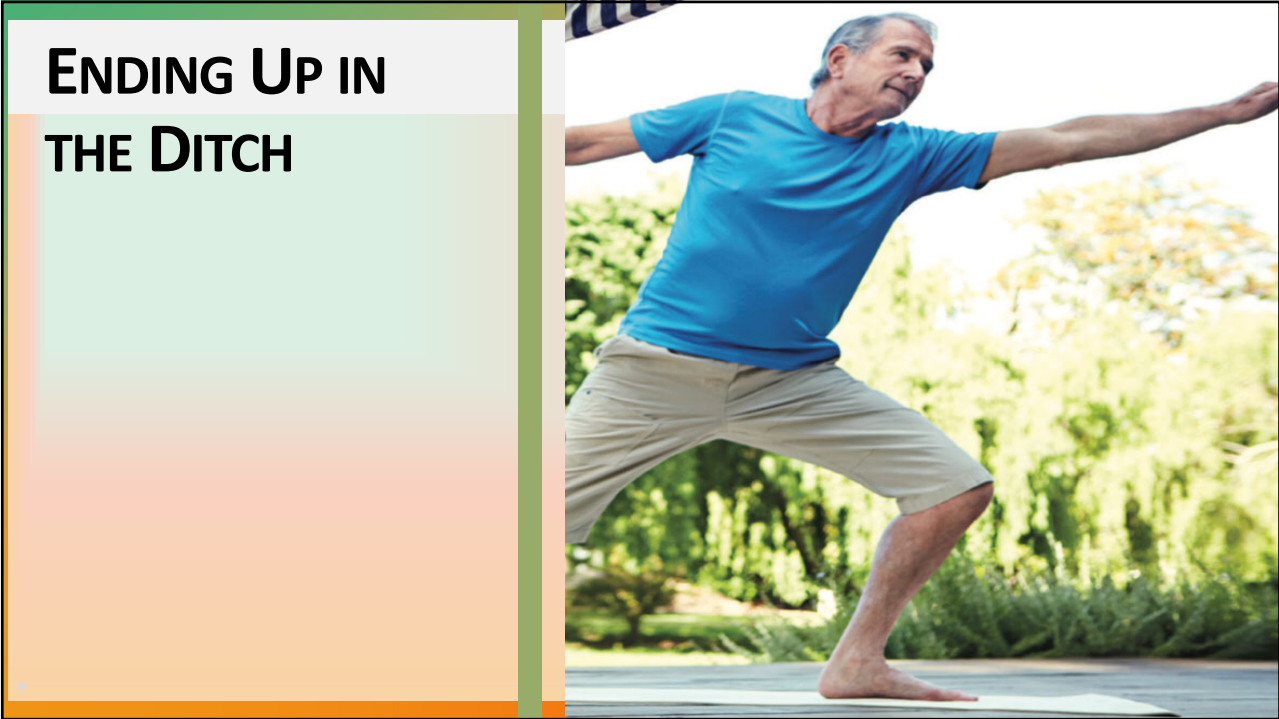
SHARE YOUR THOUGHTS...



- Select the option you most agree with
- Click or tap the SUBMIT button

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SKIN DAMAGE

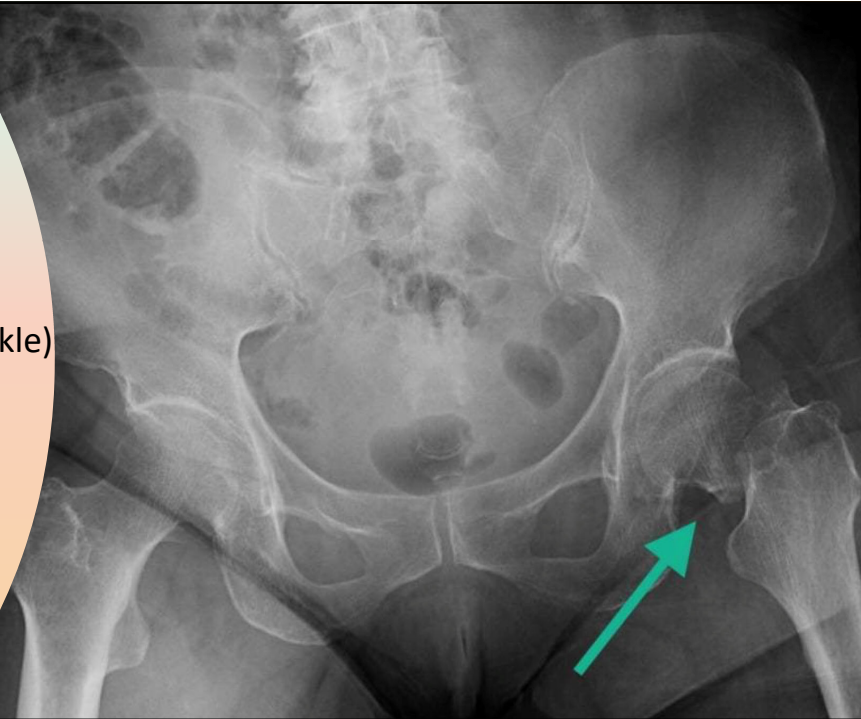
- Skin tears (avulsion or laceration)
- Bruising
- Breakdown if bed bound (“bed sores”)
- Risk of infection



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BONE FRACTURES

- Pelvis & hip
- Spine
- Extremities (wrist, ankle)
- Chest (ribs, clavicles)

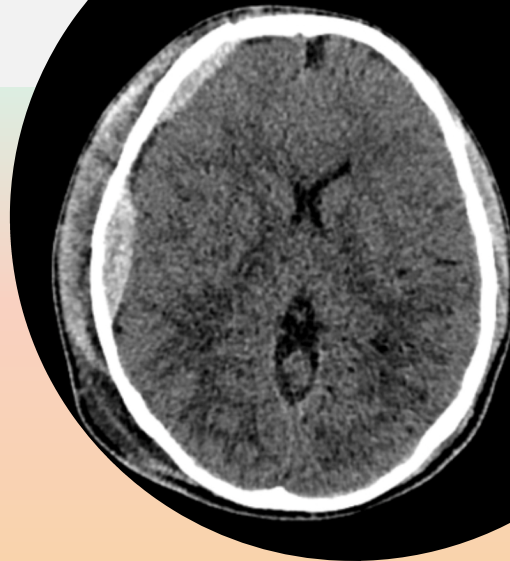


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HEAD INJURIES

- Fracture
- Concussion
- Brain bleeding



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OTHER COMMON OUTCOMES

- Pain
- Loss of function
- Increased risk of future falls



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Study: Age 65+ After Hospitalization

Post-Discharge <ul style="list-style-type: none">• Half required placement• Only 1 in 3 home without assistance• Only 6% home with assistance• 5% needed rehab facility• Half eventually re-admitted	1-year After Injury <ul style="list-style-type: none">• Only 1 in 4 discharged• 1 in 3 died• 3X greater risk of death for those who required admission to facility
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*Ayong-Chee, Patricia MD, MPH; McIntyre, Lisa MD; Ebel, Beth E. MD, MSc, MPH; Mack, Christopher D. MS; McCormick, Wayne MD; Maier, Ronald V. MD Long-term outcomes of ground-level falls in the elderly, Journal of Trauma and Acute Care Surgery: February 2014 - Volume 76 - Issue 2 - p 498-503doi: 10.1097/TA.000000000000102

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HIDDEN FACTORS: FOF & MEDICATION



Dr. Caitlin Kinahan

Physician
Geriatrics & Internal Medicine

Saint Alphonsus Medical Group

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FEAR OF FALLING (FOF)

Definition: *The fear of standing, walking, or moving because one might fall*

- Post-fall anxiety syndrome
- Occurs in
 - 33% women aged 70-85
 - Half of those remained fearful after 3 years
- Associated Characteristics
 - Depression
 - Poor mobility
 - Poor balance
 - Poor memory & other cognitive issues
 - Extra weight or obesity
 - Living alone

Austin N, Devine A, Dick I, et al. Fear of falling in older women: a longitudinal study of incidence, persistence, and predictors. J Am Geriatr Soc 2007; 55:1598.;

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FALL-RELATED EFFICACY

Definition: *The confidence one can perform a task without falling*

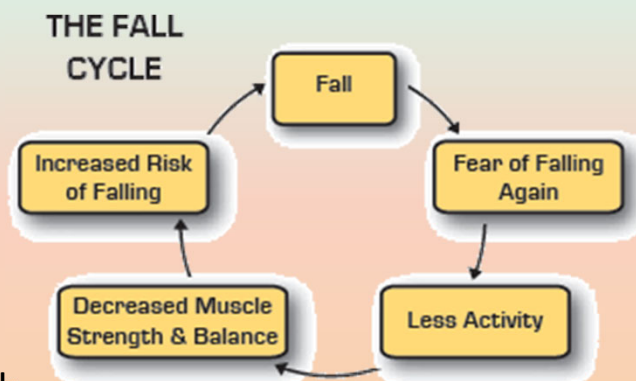
- High fall-related efficacy
- Low fall-related efficacy



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CONSEQUENCES FROM FOF

- Reduced activity
- Faster functional decline
- Complications from chronic health conditions
- Loss of independence
- Increased rates of death
- Increased admission to rehab



(1) Deshpande N, Metter EJ, Lauretani F, et al. Activity restriction induced by fear of falling and objective and subjective measures of physical function: a prospective cohort study. *J Am Geriatr Soc* 2008; 56:615.

(2) Visschedijk J, Achterberg W, Van Balen R, Hertogh C. Fear of falling after hip fracture: a systematic review of measurement instruments, prevalence, interventions, and related factors. *J Am Geriatr Soc* 2010; 58:1739.

(3) Centers for Disease Control and Prevention. (2019). Adults Need More Physical Activity. Retrieved from <https://www.cdc.gov/physicalactivity/inactivity-among-adults-50plus/index.html>

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THE IMPACT OF THE FOF CYCLE ON WELLBEING



- Social isolation
- Depression
- Diminished quality of life

(1) Characteristic Associated with Fear of Falling and Activity Restriction in Community-Living Older Persons. Murphy S, Williams C, Gill T. J Am Geriatr Soc 2002; 50:516.

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WHAT WE CAN DO

- Encourage coordination with healthcare team(physicians, nurses, PT/OT, pharmacists, caregivers, family)
- Provide guidance on reducing fall risk factors
- Refer for
 - Balance training
 - Low intensity exercise
 - Free fall prevention program
- For significant FoF, refer for Cognitive Behavioral Therapy (CBT)

Yoshikawa A, Ramirez G, Smith ML, Lee S, Ory MG, Systematic review and meta-analysis of fear of falling and fall-related efficacy in a widely disseminated community-based fall prevention program, Archives of Gerontology and Geriatrics (2020), doi: <https://doi.org/10.1016/j.archger.2020.104235>

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SHARE YOUR THOUGHTS...

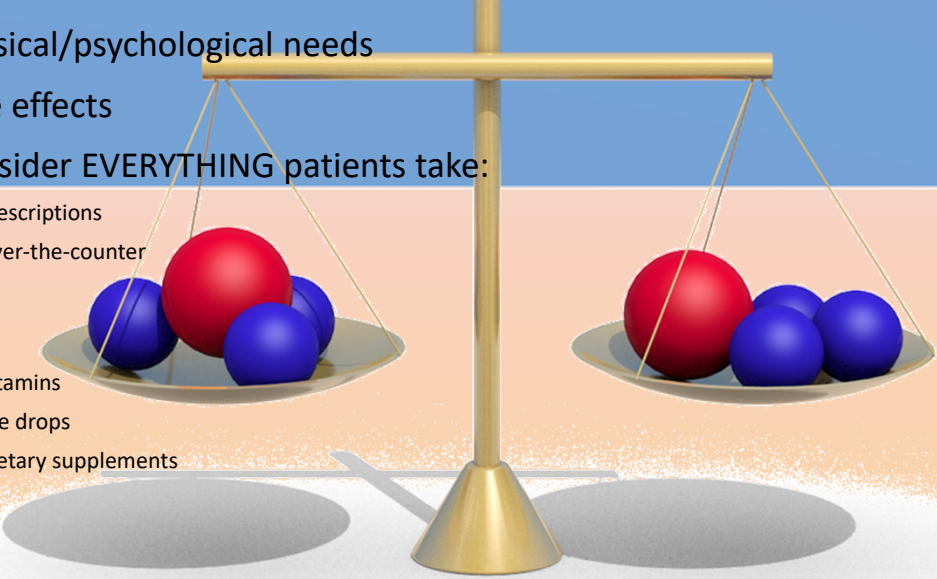
- Select the option you most agree with
- Click or tap the SUBMIT button



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MEDICATIONS ARE A BALANCING ACT

- Physical/psychological needs
- Side effects
- Consider EVERYTHING patients take:
 - ♦ Prescriptions
 - ♦ Over-the-counter
 - ♦ Vitamins
 - ♦ Eye drops
 - ♦ Dietary supplements



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AVOID INAPPROPRIATE PRESCRIBING

- Risk > Benefit
- Over-prescribing
 - Excessive doses/duration of medicines
 - Polypharmacy
- Mis-prescribing: unfavorable choice of medicine, dose, or duration
- Under-prescribing
 - Not prescribing a clinically indicated medication, despite the patient not having any contraindication to that medication

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POLYPHARMACY

Definition (general) : >5 medications for an individual

- Consider number of unnecessary medications
- Total number of meds is the #1 predictor of inappropriate prescribing and adverse drug events
- 50% of Medicare patients on 5+ medications
- Special considerations necessary when prescribing for older adults
- **Risks:**
 - ADEs, Diminished compliance with >6 prescribed drugs
 - Falls, syncope, cognitive impairment

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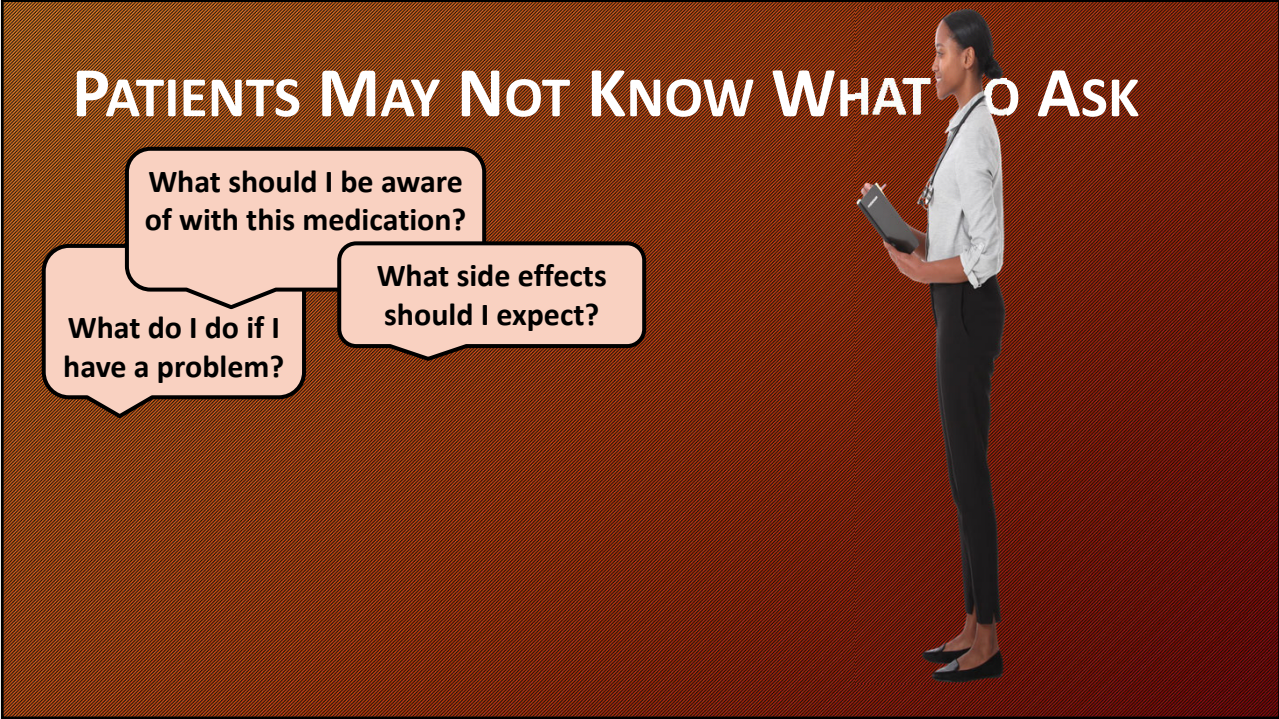


INCREASED FALL RISK

- Patients on >6 medications daily (including supplements, vitamins, OTCs)
- Specific drug classes including:
 - ✓ Benzodiazepines
 - ✓ Other sedatives
 - ✓ Antidepressants
 - ✓ Antipsychotic drugs
 - ✓ Cardiac medications
 - ✓ Hypoglycemic agents
- Recent medication dosage adjustments

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PATIENTS MAY NOT KNOW WHAT TO ASK

- 
- What should I be aware of with this medication?
 - What do I do if I have a problem?
 - What side effects should I expect?

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MEDS THAT AFFECT BLOOD PRESSURE



What Can Happen

- Postural, orthostatic hypotension
- Dehydration
- Electrolyte imbalance (sodium)

Cautionary Meds

- Diuretics or “water pills “
 - Hydrochlorothiazide
 - Furosemide, bumetanide
- Meds that improve urination
 - Tamsulosin

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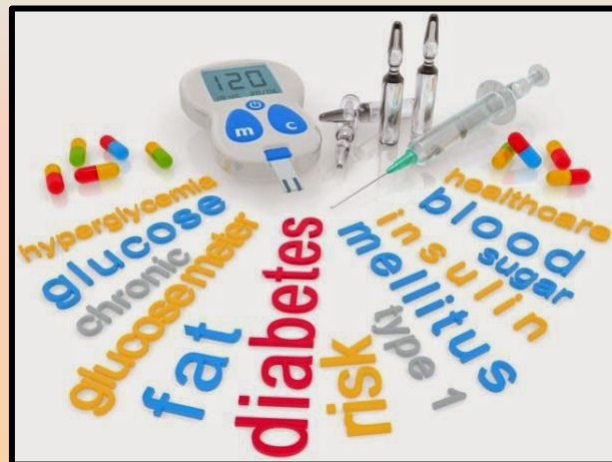
MEDS THAT AFFECT BLOOD SUGAR

What Can Hapen

- Hypoglycemia

Cautionary Meds

- Insulin
- Glitazones
- Sulfonylureas
- Metformin – generally preferred



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MEDS THAT AFFECT THE BRAIN

- Psychoactives & tranquilizers
For restlessness in dementia
 - Risperidone
 - Quetiapine
- Non benzodiazepine sedatives (“Z drugs”)
 - Zolpidem
 - Zaleplon
- Benzodiazepines
 - Diazepam
 - Lorazepam
 - Clonazepam
- **Non-prescribed Substances**
 - Tetrahydrocannabinol or “THC” (marijuana)
 - Cannabidiol or “CBD”
 - Alcohol

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MEDS THAT AFFECT THE BRAIN (CONT.)

- Anticonvulsants, Seizure Medications (used commonly for pain)
 - Gabapentin
 - Carbamazepine
 - Valproic acid
- Antidepressants
 - Fluoxetine
 - Sertraline
 - Amitriptyline
 - Nortriptyline
- Hypnotics
 - Trazodone
- Opioids/Painkillers
 - Oxycodone
 - Hydrocodone
 - Tramadol

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MEDS THAT TREAT PAIN

- Opioids
 - Oxycodone
 - Hydrocodone
- Nonsteroidal anti-inflammatory drugs (NSAIDS)
 - Ibuprofen
 - Naproxen
 - Meloxicam
 - Diclofenac



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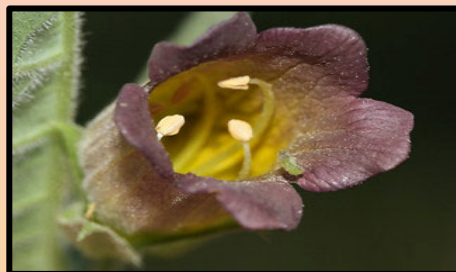
ANTICHOLINERGIC MEDS

What Can Happen

- Cognitive impairment, urinary retention

Cautionary Meds

- Over the Counter sleep aids
 - "Nighttime" or "PM" analgesics
- Over the counter allergy medication
 - Diphenhydramine
- Prescription bladder medication
 - Oxybutynin
- Motion Sickness medication
 - Hydroxyzine



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ASSIST PATIENTS EXPERIENCING CHRONIC PAIN

- Dispose of unused/unneeded medication at a DEA Drug Take-back Day
- Refer for help with misuse of narcotics
- Refer to a chronic pain workshop for self-management skills
- Provide resources for support



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WHAT WE CAN DO

- Annually review medications
- STOP unneeded/unnecessary medications
- Switch to safer alternatives
 - Compare benefits, side-effects
- Reduce dose
 - aim for lowest effective dose
- Medication management should be a **team** effort
 - Make use of your clinical pharmacist, communicate with specialists



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A MATTER OF BALANCE: FOOD, WATER, FLEXIBILITY & STRENGTH



Dr. Cindy Seiger, PhD, GCS, CEEA

Assoc. Professor, Dept. Physical & Occup. Therapy
Geriatric Certified Specialist
Certified Exercise Expert for Aging Adults

Idaho State University, College of Rehabilitation

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OLDER ADULTS NEED PROPER NUTRITION TOO

- Keeping our body properly fueled is important
- Loss of muscle mass and strength, neuromuscular impairment, immobilization, and malnutrition
- Many older people are under- or malnourished
- Negatively impacts ability to function independently
- Prevent loss of strength & balance through healthy eating & exercise!



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DRINK WATER TO PREVENT FALLS

- Dehydration can lead to falls in older adults
 - low blood pressure
 - Weakness
 - Dizziness
- Aging can impede ability to maintain proper hydration
- Certain medical conditions change retention or loss of water
- There are guidelines, but follow your healthcare team's advice on how much fluid to drink each day.



How Much Water Do I Need?

Try to Drink at Least 4 Bottles of Water Each Day OR Half Your Body Weight in Ounces.
Ex. 200 lbs. = 100 oz.



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IDENTIFY SIGNS OF DEHYDRATION

- Older adults do NOT feel thirsty until already dehydrated
- Fatigue
- Confusion
- Light-headed
- Unsteady
- Dizzy
- Fainting
- Pale, cold, clammy skin
- Dry skin in hot environment
- Less frequent urination
- Dark colored urine
- Dimmed/blurred vision

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ALCOHOL AFFECTS FALL RISK

- May be unaware of up to moderate impairment impacting
 - Reaction time
 - Vision
 - Balance
 - Judgement
- May cause changes with medications & other conditions
 - Blood pressure
 - Heart disease
 - Stroke
 - Liver
- Digestive Problems
- Alcohol & nutrition
 - Decreases appetite
 - Diuretic (dehydration)



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WHAT WE CAN DO

- Educate & encourage patients to eat a healthy diet
- Provide methods of tracking appropriate intake of water/fluids
- If concerned about incontinence, refer to continence training program
- Educate about the signs of dehydration
- Discuss how medications might impact diet & hydration
- Inform about interactions with prescribed meds and alcohol
- Warn about impact of alcohol on hydration

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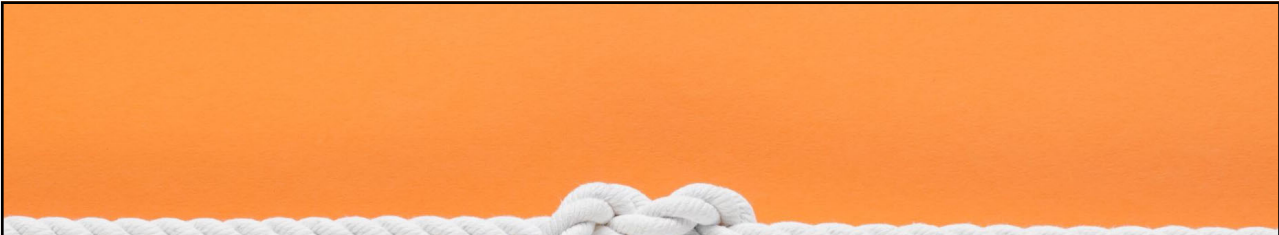




SHARE YOUR THOUGHTS...

- Select the option you most agree with
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STAYING POWERFUL

It's more than pure strength

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STRENGTH & AGING

- **Number** of muscle fibers don't change as we age
- How we **use** them changes
- How well your nerves talk to muscles
- Normal aging loss – minimal

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SARCOPENIA

- Nonsarcopenia
- Presarcopenia
- Sarcopenia (Stage 1)
 - Minimal to moderate loss
 - Due to disuse
 - Reversible
- Severe Sarcopenia (Stage 2)
 - Severe loss, irreversible
 - Pathological
 - Increased risk of falls

Gadella AB, Vainshelboim B, Ferreira AP, Neri RGR, Bottaro M, Lima RM. Stages of sarcopenia and the incidence of falls in older women: A prospective study. *Arch Gerontol Geriatric*. 2018;79:151-157.

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SARCOPENIA BY THE NUMBERS

- Presarcopenia
 - % of pop = 6.7%
 - % falls = 15.4%
- Sarcopenia (Stage 1)
 - % of pop = 13.8%
 - % of falls = 40.7
- Severe Sarcopenia (Stage 2)
 - % of pop = 12.8
 - % of falls = 72%

Gadelha AB, Vainshelboim B, Ferreira AP, Neri RGR, Bottaro M, Lima RM. Stages of sarcopenia and the incidence of falls in older women: A prospective study. *Arch Gerontol Geriatric*. 2018;79:151-157

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$\frac{\text{Strength}}{\text{Time}}$

Power

=

- More important than pure strength
- How fast or slow you do it

- 40% 1RM vs 80% 1RM
 - 40% = endurance
 - 80% = strength

Sayers SP, Gibson K. High-speed power training in older adults: A shift of the external resistance at which peak power is produced. *J Strength Cond Res*. 2014;28:616-621

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STRENGTHEN TO PREVENT FALLS

- 8 muscle groups per day
- Work to fatigue– endurance vs strength
- Gym – gravity, free weights, machines
- Home – gravity, walls, chairs, household items
- Change speed of exercises

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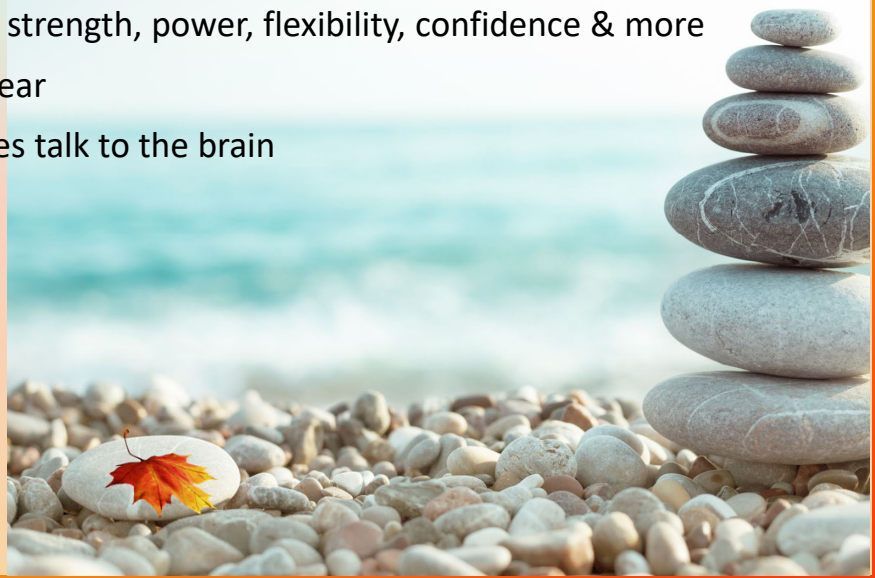
FLEXIBILITY & AGING

- Tend to get less flexible every decade
- Changes due to normal aging and disuse
 - ↓ elastin
- ↓ flexibility = ↑ falls

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STAYING BALANCED

- Combination of strength, power, flexibility, confidence & more
- Joints, vision, inner ear
- How well your nerves talk to the brain



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AGING & FALLS

- Older adults challenged to maintain strength, flexibility & endurance
- Additional mobility challenges from
 - Pain in joints
 - Natural changes in hearing & vision
 - Lack of independent transportation
- May cause unintended isolation
- May lead to loneliness & depression
- Further limits physical capacity, mobility, socialization
- Stop the cycle!

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STRATEGIES TO KEEP PATIENTS ACTIVE

Fall-proof - Six simple exercises to help you stay active

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

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WHAT WE CAN DO

Recommendations or referrals the patient will start & continue

- Fall-proof: Six Simple Exercises to Help You Stay Active
<https://youtu.be/kHppUHtplfM>
Promote Walking with family, friends, neighbors
- Encourage household chores as able
- Attend Fit & Fall Proof or Silver Sneakers classes
- Join a gym , YMCA, senior center
- *Just MOVE!*



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“

Exercise can literally mean the difference between life and premature death; between living at home or in a nursing home; between enjoying life or merely enduring it.

”

MacArthur Foundation Report on Fitness and Aging

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CHRONIC CONDITIONS CAN IMPACT FALL RISK

52% of adults have at least 1 chronic condition
27% have 2 or more chronic conditions

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DIABETES

- Low or high blood sugar can affect stability, strength & cognition
- Vision can be impacted by low or high blood sugars
- Neuropathy (nerve damage) can inhibit feeling in feet
- Diabetes Leading cause of blindness

Gain Control Over Your Diabetes!
Diabetes Self-Management Workshops

- Nutrition, medication, stress reduction, coping strategies, communication
- 2½ hours/week for 6 weeks
- Online or in-person
 - Visit ICOA website or call your AAA

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VISION LOSS

- Common as we age
- Don't ignore poor vision
- Many effective treatments for correction
- Get training if loss is significant

Don't Fall from Poor Vision

- Visit optometrist for corrective lenses
- See specialist for conditions like macular degeneration & cataracts
- Contact Idaho Commission for the Blind & Visually Impaired for safe mobility training

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CHRONIC PAIN

- Loss of appetite, constipation/diarrhea impact hydration & nutrition
- Lower back pain
- Headache. (migraine)
- Fatigue (MS, cancer treatments, dehydration, undernourishment)
- Neuropathy (diabetes, MS)
- Arthritis (osteoarthritis, gout)
- Fibromyalgia.
- Shingles.
- Prior injury, infection or surgical procedure

Chronic Pain Workshops

- Nutrition, medication, stress reduction, coping strategies, communication
- 2½ hours/week for 6 weeks
- Online or in-person & peer-led
- Visit ICOA website or call your AAA

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NO SYSTEM IS AN ISLAND

Many conditions impact multiple parts of our body & increase risk of falls

- **Multiple sclerosis (MS)** – pain, numbness, weakness, memory , vision
- **Parkinson’s** - tremors, stiffness, balance , strength
- **Fibro myalgia** – muscle/bone pain & tenderness, fatigue, disrupted sleep
- **Cardiovascular** (stroke, heart failure, A-fib) –brain, weakness, fatigue, fear
- **Respiratory** (Asthma, COPD) –weakness, dizziness, poor balance, loss of coordination, slowed reaction time
- **Urinary/Bowel** (Kidney function, incontinence) –hydration/nutrition, hurry to bathroom

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ASSESSING RISK AS A MATTER OF PRACTICE



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QUICK & EASY PATIENT FALL RISK ASSESSMENT

- Simply ask if they have fallen in the last 12 months!
- Evaluate strength, balance & gait
 - Timed Up-and-Go (Tug)
Checks gait
 - 30-Second Chair Stand Test
Checks strength and balance. .

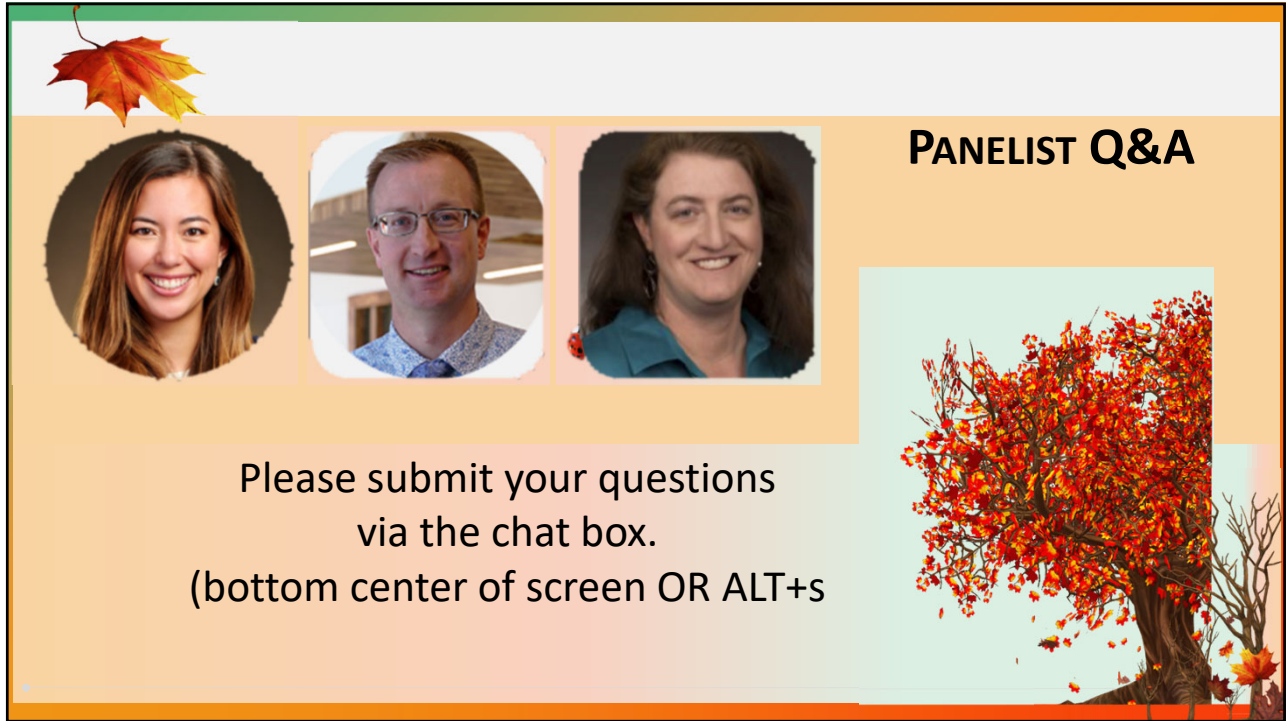
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THE FORMAL FALL RISK TOOLS

- Morse Fall Scale
- Performance-Oriented Mobility Scale.
- Berg Balance Scale
- Downton Fall Risk Index
- Timed Up and Go test
- One-legged and tandem stance assessments
- Hendrich II Fall Risk Model
- Tinetti Gait and Balance Assessment Tool
- St. Thomas's Risk Assessment Tool in Falling elderly inpatients

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PANELIST Q&A

Please submit your questions
via the chat box.
(bottom center of screen OR ALT+s)

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PUTTING IT ALL TOGETHER



- Ask about falls
- Facilitate ANY movement
- Assess for fall risk
- Manage chronic health conditions
- Watch for Fof, isolation, loneliness, depression
- Collaborate with entire healthcare team
- Review & adjust meds annually
- Include family, Neighbors, friends
- Check on nutrition & hydration
- Utilize ICDA workshops & classes

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Thank you for Your time & support

Participants

We hope you understand the importance of assessing for & addressing falls in your practice. Thank you for your support!

Panelists

Our experts' insights, knowledge & experience are irreplaceable!

ZOOMbies

We can't do any of it without our behind-the-scenes ZOOM gurus!

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