Senior Providers RESOURCE, LLC

Wellness Tips & Light Exercise

Presented By:
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- **Improving Medicare Post-Acute Transformation (IMPACT) Act**
  - Enacted October 6th 2014
  - Specifies quality measures on which Post-Acute Care (PAC) providers (SNF, IRF & LTCH) are required under the applicable reporting provisions to submit standardized patient assessment data in several domains:
    - Falls
    - Skin Integrity
    - Function

- **MDS new section GG "Functional Abilities and Goals"**
  - Eating
  - Oral Hygiene
  - Toileting Hygiene
  - Sit to lying
  - Lying to sitting on side of bed
  - Sit to stand
  - Chair/bed-to-chair transfer
  - Toilet transfer
  - Walk 50 feet with two turns
  - Walk 150 feet
  - Wheel 50 feet with two turns
  - Wheel 150 feet

- **Restorative Nursing**
  - Is once a day ROM and propelling/walking once a day 150 feet enough to prevent a decline in Function?

NO

- **Humans are Meant to be Upright & Mobile**

Optimal Body Function – Upright for 16 hours/day and 7-8 hours of uninterrupted sleep

Knight J, et al. Nurse Times. 2009; 105(21): 16-20

Mobility

- **Mobility – the ability to efficiently navigate and function in a variety of environments, requires balance, agility and flexibility.**

- Root Cause of Falls
  - Falls
    - Strength, Balance and Endurance issue

- **The Aging Process Impact on Mobility**
  - **Sarcopenia**
    - The loss of muscle mass with age
    - Each decade the aging adult has 5lbs less muscle and about 15 pounds more fat
    - Resulting in a 20lbs change in physical status and appearance

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- **The Aging Process Impact on Mobility**
  - The primary cause of the loss of muscle mass

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- Restorative Nursing
  - If you don't you it, you lose it
  - If you rest, you rust

- **The Aging Process Impact on Mobility**
  - Dieting alone without exercise does not have high success rates
    - 25% percent of weight lost during low calorie diets without exercise is actually lost muscle tissue
    - Less muscle leads to slower metabolism
      - Reduced muscle tissue is largely responsible for a 2 – 5% per-decade decrease in our resting metabolism
      - Slower resting metabolism leads to calories previously used by muscle are routed into fat storage

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- **What is the best type of exercise??**
  - Cardio AND
  - Strength Training

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- **Benefits of Cardiovascular Exercise**
  - Cardiac output
  - Oxygenation of tissue
  - Respiratory function
  - Neuroplasticity – best time for the brain to relearn is during and immediately after exercise

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- **Cardiovascular Exercise**
  - Should be done daily – 10,000 steps a day
  - HIIT – High Intensity Interval Training (1 minute high/1 minute low) for 20 minutes at least 2 days a week
  - 30-60 minute of running, bicycling, rowing, kayaking or swimming at least once a week

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- **The Aging Process Impact on Mobility**
  - All adults should perform regular endurance exercise such as walking and cycling to enhance cardiovascular function, However
  - Aerobic activities do little to prevent gradual deterioration of the musculoskeletal system
  - One study of elite middle-aged runners, the subjects lost about 5lbs of muscle over a 10 year period in spite of extensive aerobic training.

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- **The Effects of Immobility**

  The Solution – Strength Training

  - Systemic strength training – use of resistance
    - Adding muscle
    - Losing fat
    - Raising resting metabolic rate
    - Increase daily expenditure
    - Increase bone density
    - Enhance glucose metabolism
    - Increase gastrointestinal transit
    - Lower resting blood pressure and pulse
    - Decrease in depression

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- **Strength Training Exercise program:**
  - Studies have shown that muscle mass can be increased at essentially any age through systemic strength training even if they have never done strength training before

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- **Frequency of Exercise**
  - **Strength exercises may be productively performed two to three days per week – Allow 48 hours of rest in-between sessions**
  - **Research has shown that 2 days a week of strength training is beneficial and just as effective as 3 days.**

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- **Goals of Exercise**

Avoidance of Disease/Health	Fitness	Performance
5 Days a week	3-4 Days a week	7 Days a week
Moderate Intensity	Vigorous/Hard Intensity	Very Hard Intensity
30 minutes a Day	30-45 Minutes per Day	2 Hours per Day
Walk 6-12 miles/week	Jog 10miles/week	Run 100 miles/Week

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Individual Goal Setting

- Needed for Starting Point & to Measure Progress
  - Short Physical Performance Battery (SPPB)
  - Anthropometric Measurements
  - Muscle Quality Index
  - Hand Grip Strength
  - Steps per Day
  - Resting Heart Rate
  - Resting Blood Pressure
  - Waist to Hip Ratio

- **Equipment**
  - **Your own body weight**
  - **Dumbbells and/or resistance bands**
  - **Ankle weights**
  - **Sturdy Chair**
  - **Steps, counter tops, walls**

- Exercise should be done in the standing position as much as possible
- Near a wall or have a chair handy if slight balance issues
- Sitting position if unable to bear weight safely

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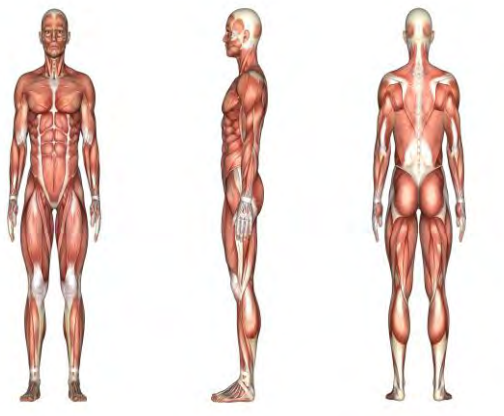
- **Develop Exercises that call for exercise for each of the major muscle groups**
  - **Quadriceps**
  - **Hamstrings**
  - **Pectoralis Major**
  - **Latissimus Dorsi**
  - **Deltoids**
  - **Biceps**
  - **Triceps**
  - **Erector Spinae**
  - **Rectus Abdominus**
  - **Neck**
  - **Flexors/Extensors**



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- **Strength Training**
  - **Proper warm-up before all exercise is important for at least 5 minutes**
    - **Simple walking or marching – can be done while sitting for standing balance issues**
    - **Large body movements – Dynamic stretching**
    - **When warming up no static stretching**

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- **Training Speed**
  - **Performed movement slowly**
  - **Using strength not momentum**
  - **Pace should be 6 seconds total**
    - **2 second to lift and**
    - **4 seconds to lower the weight**

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- **Breathing**
  - **DO NOT HOLD BREATH EVER!!!!**
  - **Inhale before starting a strengthening exercise and exhale upon exertion**
  - **Moving against gravity is the exertion phase – away from the floor**

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- **Training Range**
  - **Full- range exercise movements are necessary for building full-range muscle strength.**
  - **Each exercise should be performed through the complete range of joint movement**
  - **However do not go to the point of locking the joint**
  - **If any part of the exercise causes discomfort, the movement range should be abbreviated accordingly.**
  - **Promote joint function, safety and stability. Do not over extend or over flex the limbs. Perform all movements in the most secure, stable and functional positions possible for the individual**

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- **Proper Cool Down - Stretching**
  - **Tips:**
    - **Hold stretches for 15-30 seconds or more**
    - **Go to the point you feel the muscles stretching**
    - **Do not go past that point where it starts to hurt**
    - **Always ease into a stretch gently**

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- **Stop Exercise if any of the following warning signals**
  - **Light headedness, dizziness**
  - **Breathlessness, shortness of breath**
  - **Higher than normal levels of joint, muscle, or skeletal pain or discomfort**
  - **General weakness, extreme fatigue**
  - **Anginal pain which may occur in the chest, neck, jaw, back or limbs**
  - **Excessive sweating, cold sweats, clamminess**
  - **Heart palpitations, irregular pulse**
  - **The resident stops for any reason**

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- **Exercises for specific conditions/concerns**
  - **Alzheimer's Disease**
    - **Amyloid plaques in the brain**
    - **Interventions to decrease amyloid plaques**
      - **Adequate sleep**
      - **Exercise**

Guest Column in McKnights:

http://www.mcknights.com/guest-columns/lifestyle-and-the-aging-brain/article/417260/?DCMP=EMC-MCK_Daily&spMailingID=11530562&spUserID=ODE2NDE0MDMwNDES1&spJobID=560074336&spReportId=NTYwMDc0MzM2S0

- **Exercises for specific conditions/concerns**
  - **Parkinson Disease**
    - **Mobility – the ability to efficiently navigate and function in a variety of environments, requires balance, agility and flexibility all of which are affected by Parkinson Disease.**
    - **Rigidity, bradykinesia, freezing, poor sensory integration, inflexible program selection and impaired cognitive processing limit mobility in people with Parkinson Disease.**

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- **Exercises for specific conditions/concerns**
  - **Parkinson Disease/Balance**
    - **Obstacle Courses**
    - **Ladder drills**
    - **Kayaking**
    - **Lunges & Kicks**
    - **BIG & LOUD movements**
    - **Quick Boxing Movement**

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- **Exercises for specific conditions/concerns**
  - **Parkinson Disease**
    - **Tai Chi**

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- **Exercises for specific conditions/concerns**
  - **Cognitive Impairment**
    - **Inability to simultaneously carry out a cognitive task and a balance or walking task has been found to be a predictor of falls in elderly people.**
    - **Agility program could progress task difficulty by adding cognitive or motor tasks that teach residents to maintain postural stability during performance of secondary tasks**
      - **Exercise Level 1: Have no dual tasks**
      - **Exercise level 2: has a motor task (bouncing a ball) added to the basic exercise such as an agility course**
      - **Exercise level 3: has a cognitive task (performing math or memory problems) added to the same basic exercise**
    - **The progression of adding secondary tasks to gait and balance tasks serves as a training device as well as a tool to help residents understand the relationship between safe mobility and secondary tasks in everyday life**

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- **Exercises for specific conditions/concerns**
  - **Cognitive Task and Balance Task Example - One Foot and One Toe Behind**
    - **Stand behind your chair and hold on to it**
    - **Place your right foot flat on the ground and bring your left foot behind your right but as you set it down only allow the big toe to touch the ground**
    - **Most of your weight should be on your right foot**
    - **Balance there for 30 seconds and try to use your chair as little as possible**
    - **To make it harder, you can move your head up and down**
    - **Look up at the ceiling and then slowly move you head down and look at the floor and repeat for 30 seconds (do not strain to far back just enough to see the ceiling or too far forward just enough to see the floor)**

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- **Exercises for specific conditions/concerns**
  - **Cognitive Task and Walking Task Example**
    - **Basic –** Walk forward taking normal-length steps, but bring your knees up higher than usual with every step. The higher you raise your knees that is comfortable for you, the harder it will be
    - **Intermediate –** Walk forward again, but this time, only raise your left knee as you walk. Your right leg should just take a normal-looking step forward without exaggerated knee lift. Try again with the opposite leg
    - **Advanced –** This time you will walk forward and take a high knee with every third step – Quite tricky!!

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Lets Get Our Bodies Moving!!
&
Our Brains Working!!!

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Thanks for your participation!!!

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