Wellness Seminar

Exercise for Healthy Aging

Presented by:
Dr. Maren S. Fragala, CSCS*D
Carleigh Boone, BS
Kyle Beyer, BS, CSCS
Am I ‘healthy enough’ to exercise?

• Ask your doctor

• Simple forms to help you decide
Does exercise really do me any good?

• Exercise is the BEST medicine!
  – Cardiovascular functioning
  – Respiratory health
  – Bone health
  – And especially...
  – ... Muscle health...
The evidence...

- Muscular Adaptations to Strength Training Exercise in Seniors (MASTERS)

MASTERS Study Video
What we did

• All participants ≥ 65
• Weight training sessions 2 days per week for 6 weeks
• Training sessions
  – Full body workouts
  – 6-8 exercises
  – 3 sets per exercises (progressively increasing load)
• Strength, balance, and cognitive function improved!
Exercise 101

• Perform workouts on 2-3 nonconsecutive days per week
• Include exercises in each workout that use different muscle groups (legs, chest, arms, back)
• Perform 3 sets per exercise with between 8-12 repetitions
• Start with light weights and slowly progress as the exercise becomes easy
• Workout with a partner to provide assistance and motivation
• Remember to breathe throughout each exercise
• Always perform a 5-10 min warm-up before each workout to increase blood flow and range of motion
• The length and intensity of your warm-up should not be enough to cause fatigue
• Examples:
  – Brisk walk/jog
  – Butt kicks
  – Arm rotations
  – High knees
Lower Body Exercises

- Squats
- Lunges/Split squats
- Calf raises
- Single-leg RDL
Upper Body Exercises

• Push-ups
• Upright row
• Biceps curls
• Shoulder press
• Triceps extensions
• Dips
Core Exercises

- Plank
- Seated reverse crunch
- Superman
Partner Exercises

• Medicine ball twists
• Straight leg raises
• Medicine ball sit-ups

• Make exercise fun!
Frequently Asked Questions
IS IT TOO LATE TO START EXERCISING?
Absolutely not!

• “Resistance exercise-induced changes in aged skeletal muscle are associated with numerous health benefits...resistance exercise not only promotes strength gains, but also reduces risk for diabetes and cardiovascular disease” (Phillips, 2007)

• Beginning around age 30, men and women typically start to experience
  – Decreases in muscle mass (sarcopenia), strength, mobility, and functional ability

• Inactivity increases effects
  – Increased frailty, vulnerability, mortality
Healthy Bones

• As we age...osteopenia, osteoporosis
• Weight training and weight-bearing exercise promotes healthy bone mineral density
• Consistency is key!
• ...regular exercise = strong bones
I’M HAPPY WITH MY BODY WEIGHT. WHY SHOULD I EXERCISE?
It’s not just about the number on the scale!

- Body composition determines health status and risk for many chronic diseases
- Keeping these tissues healthy is within our control – HOW?
SHOULD I DO CARDIO OR WEIGHT TRAINING?
Exercise for Health

• Aerobic activity
  – 30 min of mod-intensity aerobic activity on most days, OR
  – 20 min of vig intensity aerobic activity on 3 days week, OR
  – A combination of moderate and vigorous intensity 3-5 days
  – Examples
    • Walking
    • Tennis doubles
    • Cycling

• Muscle strengthening activity
  – Target major muscle groups on 2-3 nonconsecutive days per week
  – Mod- to high-intensity (3 sets; 10-15 repetitions)
Exercise for Health

• Flexibility Activity
  – Static stretches targeting various muscle groups should be held for 30-60 seconds
  – After exercise or on separate occasion; ≥ 10 minutes per session

• Neuromotor Activity
  – Improve balance, coordination, agility, gait, and proprioception
  – No specific recommendations
  – Examples:
    • Tai chi
    • Yoga
HOW CAN I EXERCISE WITHOUT GYM EQUIPMENT?
Use what you have!

- **Body weight exercises**
  - Push-ups
  - Body weight squats
  - Planks

- **Free gym membership?**
I DON’T HAVE ENOUGH TIME OR MOTIVATION TO EXERCISE.
Find a partner!

- Time flies 😊
- Encourage each other
- Share successes
- Stay committed
- Friendly competition
- Exercise assistance
DOES MY DIET HAVE TO CHANGE AS I AGE?
Nutrients

**CARBOHYDRATES**
Body’s first choice for energy
Complex (fiber)...whole grains, vegetables, beans

**FATS**
Provides energy at rest and during low-intensity activity
Healthy fats...avocado, nuts, seeds, fish

**PROTEIN**
Not a source of energy, BUT largely important for optimal muscle/tissue health
Lean meats, poultry, fish, soy
Vitamins/Minerals

- Deficiencies may lead to cancer, accelerated aging (Ames, 2006)
  - Vitamin D
  - Calcium
  - Magnesium
  - Vitamin C
  - Vitamin E

  Support healthy bones & muscles
  Protective antioxidants

- A well-balanced diet is *typically* all you need
MY FAMILY HISTORY DOESN’T FAVOR LONGEVITY. CAN I DEFY THE TREND?
Preventative Actions

• Aging is unavoidable
• ...can we prevent sarcopenia?
• A healthy, active lifestyle can minimize the untoward effects of aging
  – Regular exercise may delay the onset of/attenuate symptoms of sarcopenia
  – A well-balanced diet will optimize bodily function
DID SOMEONE SAY ‘FREE GYM MEMBERSHIP’?
Wellness Research Center

- Cardio equipment, free weights, weight machines
- Free wellness screenings, fitness assessments, group exercise classes
  - Core
  - Boot Camp
  - Yoga