

The Biggest Impact!

(23 ½ Hours)

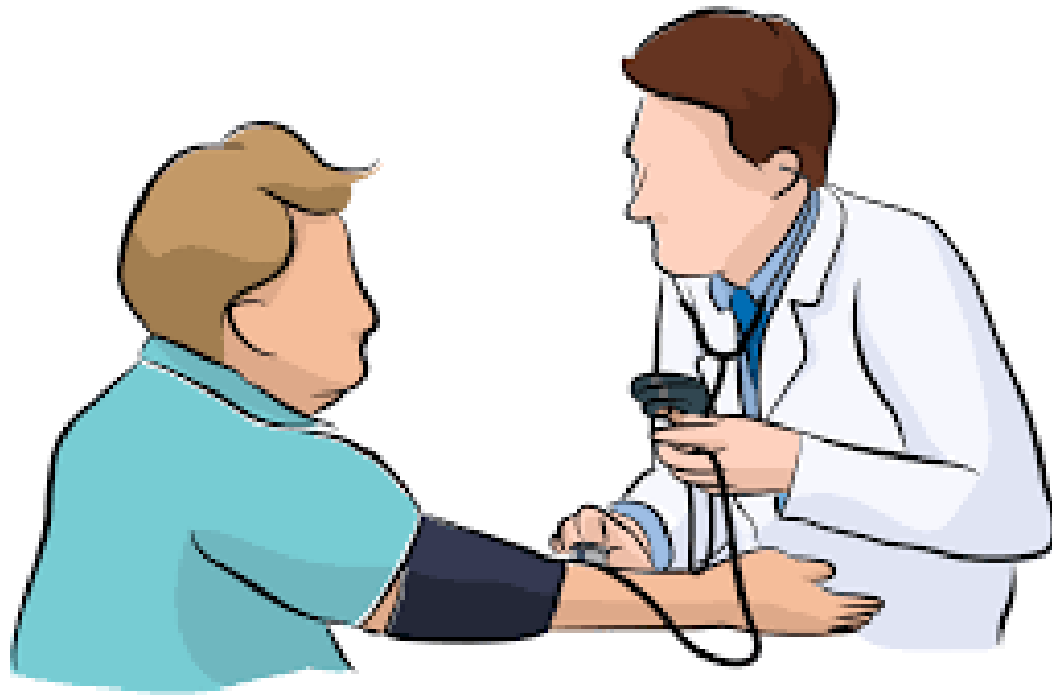
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Pacific Union Health Ministry Director

What has the Biggest Return Investment for your Health?

- ▶ In Preventive Medicine, we always want to know what are the most important things to improve our health or reverse chronic diseases –

What is Most Important?

- ▶ Is it getting regular health check-ups from your doctor?



What is Most Important?

- ▶ Is it getting regular Cancer screening?



What is Most Important?

- ▶ Is it eating more fiber and plant-based foods?



What is Most Important?

- ▶ Is it having good Social Skills & Friendship?



What is Most Important?

- ▶ Is it Weighing Less?



What is Most Important?

- ▶ Is it Smoking or Drinking Less?




What is Most Important?

- Is it Controlling your Blood Pressure?

Don't Let Your Blood Pressure Erupt


Blood Pressure Category for Adults	Systolic mmHg (upper number)	and/or	Diastolic mmHg (lower number)
HYPERTENSIVE CRISIS (Consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120
HIGH BLOOD PRESSURE (Hypertension) Stage 2	140 OR HIGHER	or	90 OR HIGHER
HIGH BLOOD PRESSURE (Hypertension) Stage 1	130–139	or	80–89
ELEVATED	120–129	and	LESS THAN 80
NORMAL	LESS THAN 120	and	LESS THAN 80



 **A HARVARD MEDICAL SCHOOL**
SPECIAL HEALTH REPORT

Controlling Your Blood Pressure

What to do when your doctor says you have hypertension



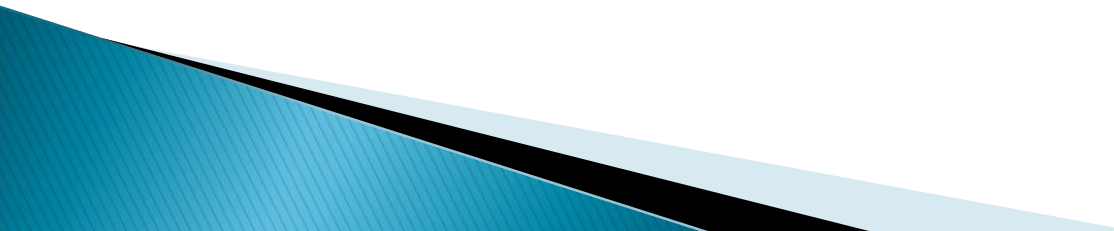
© 2017 ACCORDIAN PARTNERSHIP OF MEDICAL PROFESSIONS (ACCORDIAN) Society for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. J Am Coll Cardiol 2017; 70: 103–133

What is Most Important?

- ▶ Is it Controlling your Cholesterol?

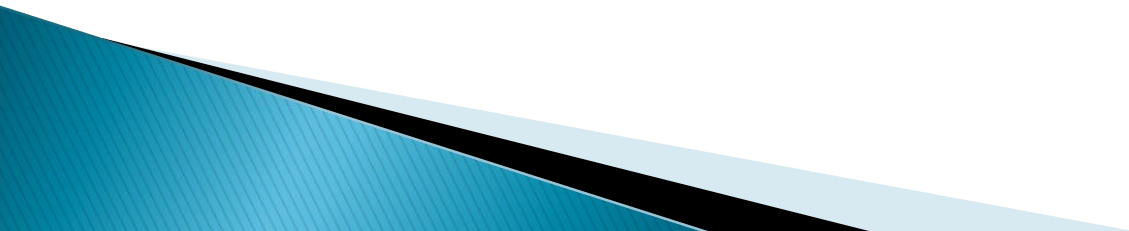


All of These are Very Important

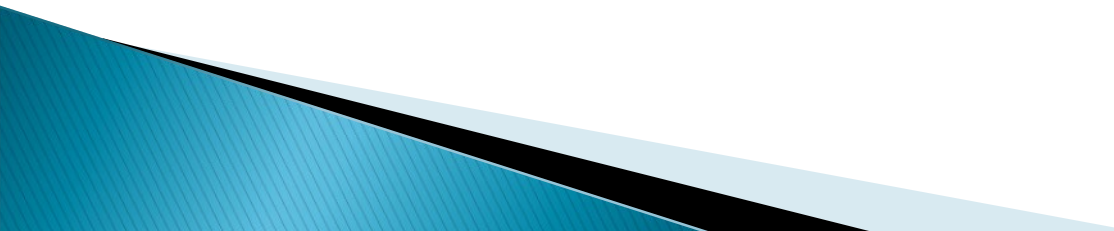
- ▶ I don't want to Minimize any one of these efforts
 - ▶ But if we could choose just one category to work on—
- 

What Makes the Biggest Impact?

- ▶ I want to know what comes First! – What has the biggest impact on our health?
- ▶ Where do we get the Biggest Bang for our Buck so to speak?



It's Hard to Decide!

- ▶ One reason it is hard to decide is that you hear different health claims almost every week about new research on various health benefits of all of these things
 - ▶ Secondly, there are many overlapping health benefits from all of these
- 

Why am I Choosing one Strategy?

- ▶ Because of it's Breadth
- ▶ Because it It works for so many Health Problems

Knee Arthritis

- ▶ Those who received 1 hr of this treatment three times a week reduced their pain and disability by 47%

For Older Patients

- ▶ Those who received this treatment reduced their progression to Dementia and Alzheimer's disease by 50%


For Patients with Risk of Diabetes

- ▶ It reduced their progression to Frank Diabetes by 58%

For Post Menopausal Women

- ▶ Four hours per week of this treatment had a 41% reduction in the risk of hip fracture

For Anxiety & Depression

- ▶ It reduced the risk of Anxiety by 48%
 - ▶ In a big metanalysis it reduced the rate of Depression by 30% with a low dose of the treatment
 - ▶ It reduced Depression by 47% as the dose was increased
- 

Harvard Alumni –(12 yr study follow-up). 10,000 persons

- ▶ It reduced the risk of Death by 23% compared to those that did not get the treatment

Fatigue

- ▶ It is the # 1 treatment for Fatigue

Quality of Life

- ▶ It improves Quality of Life and has been shown over and over to improve this quality in multiple studies

So What is this Medicine?

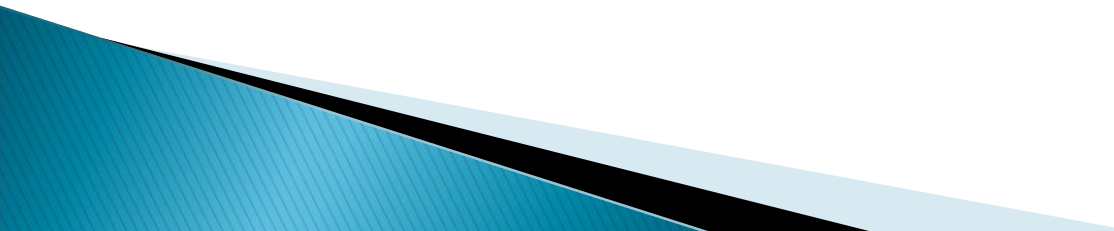
- ▶ And what does 23 ½ hours have to do with it?

This Medicine is (You Guessed it!)

- ▶ Exercise! At least $\frac{1}{2}$ hr per day!
- ▶ Mostly Walking, Not marathons or triathalons

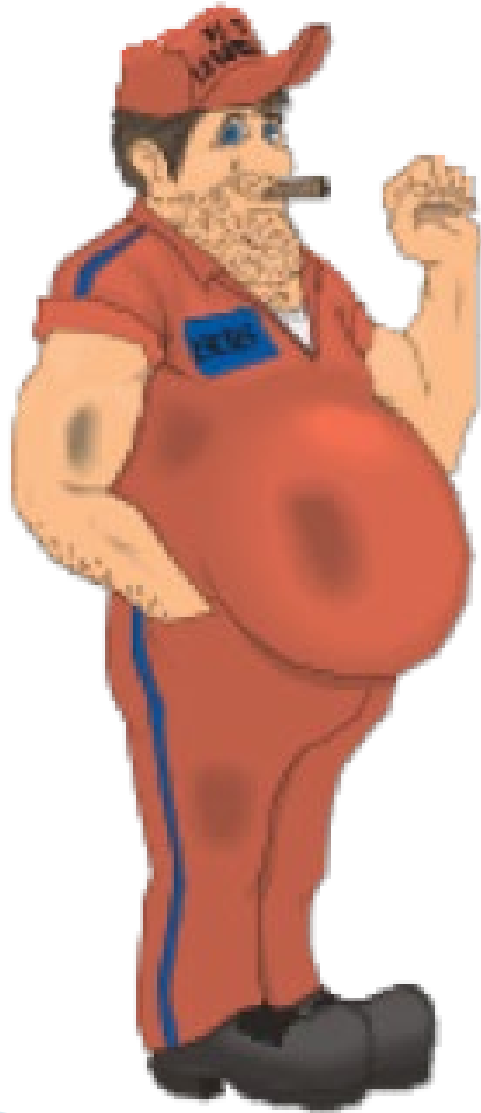
What Causes the Most Disability?

Aerobic Center Longitudinal Study– 50,000 Men/Women

- ▶ Diabetes?
 - ▶ High Cholesterol?
 - ▶ Hypertension?
 - ▶ Smoking?
 - ▶ Obesity?
- 

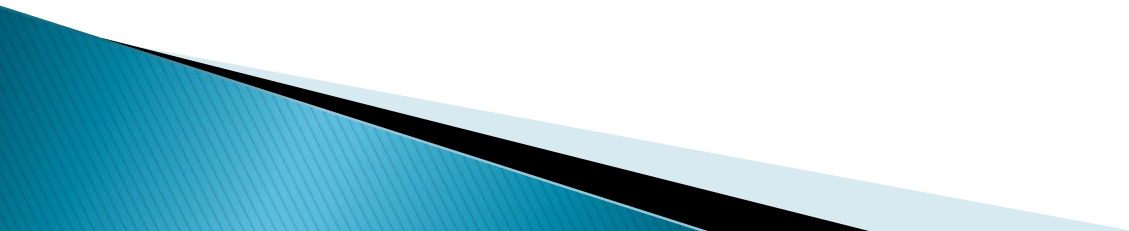
What Causes the Most Disability?

- ▶ LOW FITNESS




So What Is a Typical Day for Many

- ▶ Each day most adults typically spend many hours sitting both at work and at home, Watching TV, Sleeping



So What Do we Recommend?

- ▶ Each day if you can spend at least $\frac{1}{2}$ hour exercising or maybe even an hour exercising you can realize all of the benefits we just described in the previous slides.
 - ▶ You can have the rest of the $23 \frac{1}{2}$ hours to do all those other things like sitting and sleeping
- 

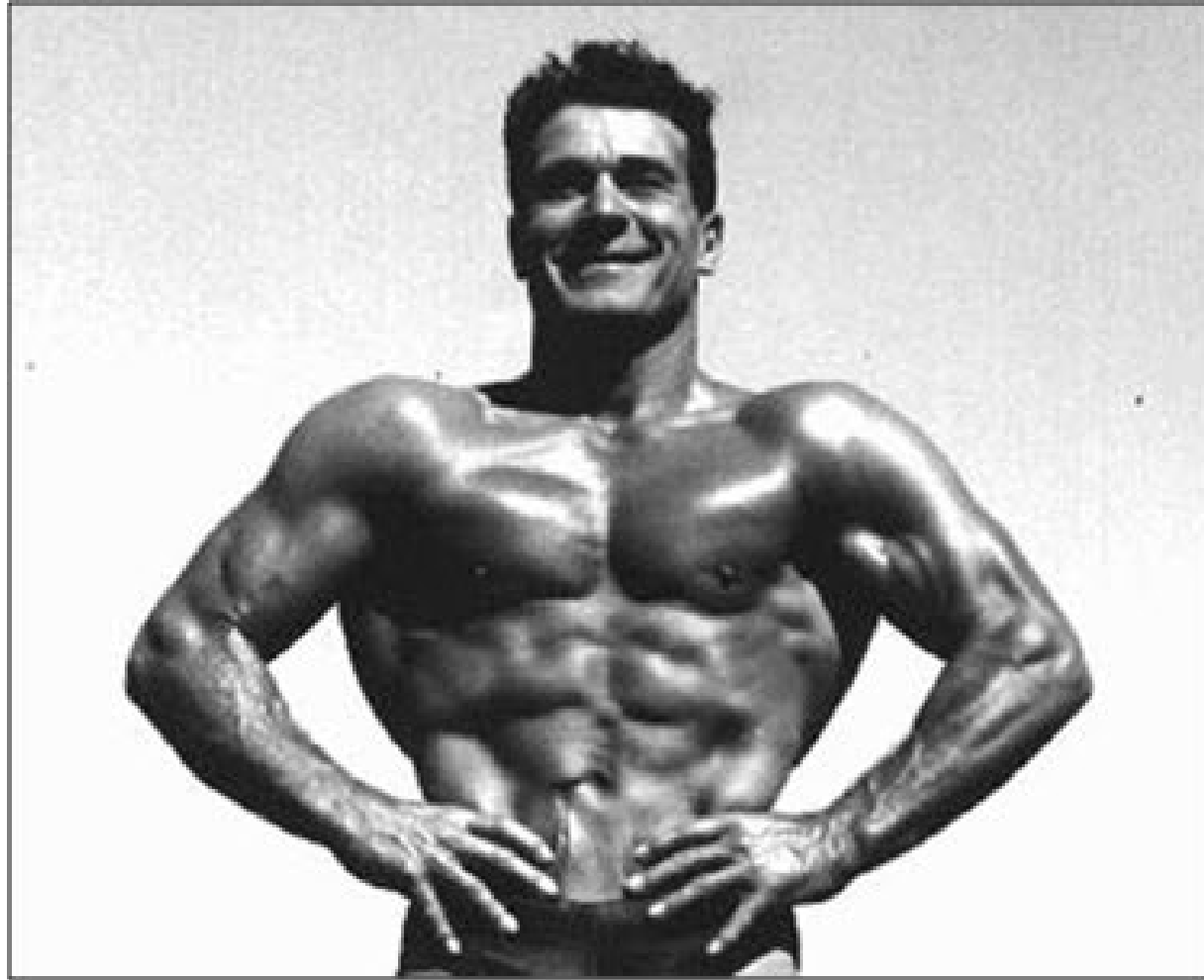
America's Sedentary Epidemic



EXERCISE

Welcome to America.

Remember Jack Lalanne?



Remember Jack Lalanne?



Jack Lalanne: Lived 96 years!

- ▶ Turned 96 years old on Sep. 26, 2010
- ▶ Pioneer in the field of exercise training
- ▶ Well known for his long-running TV show
- ▶ Describes himself as a weak, sickly child
- ▶ As a teen, went to hear nutrition/health promoter Paul Bragg lecture. This was the start of new way of life for LaLanne.



Jack Lalanne: 96 years strong!

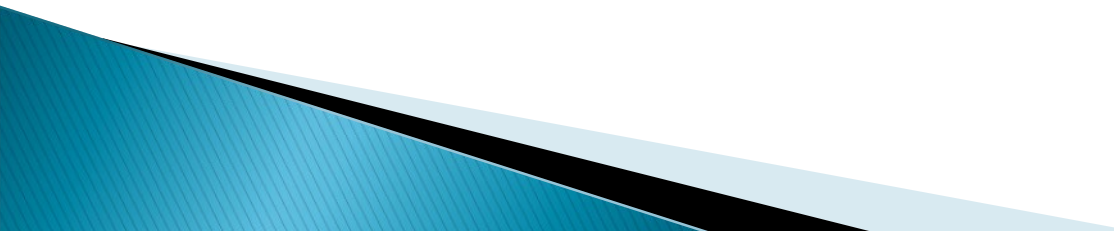
"I actually got on my knees and I said, 'Dear God, give me the willpower to refrain from eating these foods that are killing me!' " he says.

LaLanne cut out all white flour and white sugar, turning to a diet heavy on fruits and vegetables. At the end of two weeks, he says, he felt "like an entirely different human being."

USA Today, September 26, 2004



Jack Lalanne: Lived 96 years strong!

- ▶ Began to adhere to diet that was strictly vegetarian for many years (today described by his website as 99.9% vegetarian)
 - ▶ Began vigorous exercise program
 - ▶ At 70 yrs of age, swam towing 70 boats each with 70 people in them across a bay
 - ▶ At 90 years of age, exercised 2 hours per day, 7 days per week
- 

Health Benefits of Exercise

- ◻ Reduces heart disease risk
 - Reduces blood pressure
 - Increases HDL cholesterol
 - Reduces demand on heart: efficient muscles
 - Promotes collateral circulation
- ▶ Lowers stroke risk
- ▶ Reduces claudication

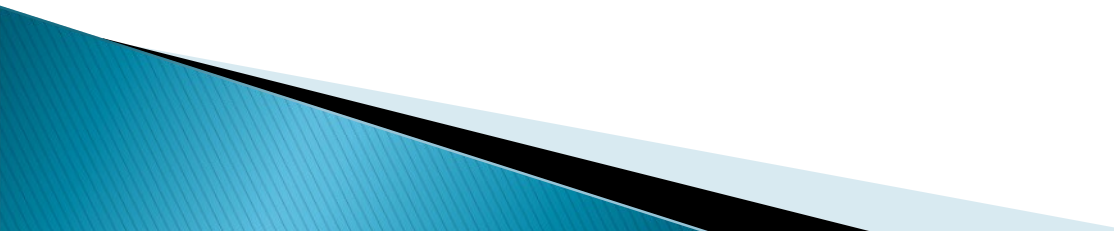
Health Benefits of Exercise

- ▶ Weight reduction
 - Burns calories during the activity
 - Increases basal metabolic rate
 - Helps curb abnormal, maladaptive appetite
 - Builds lean muscle mass: muscle burns fat
- ▶ Promotes bone health and prevents osteoporosis
- ▶ Improves joint function & prevents arthritis.

Health Benefits of Exercise

- ▶ Improves GI tract function
 - Reduces constipation
 - Reduces gallstone risk
- ▶ Enhances immune system function
 - Note: Severe exercise can suppress
- ▶ Extremely effective in mental health
 - As effective as medication for depression
 - Helps with anxiety disorders, stress, etc.

Health Benefits of Exercise

- ▶ Excellent remedy for diabetics
 - Reduces insulin resistance
 - Counteracts obesity
 - Lowers CAD risk (biggest killer of diabetics)
 - Improves peripheral circulation (neuropathy, wound healing, etc.)
- 

Health Benefits of Exercise

- ▶ Cancer: lowers risk for many types
- ▶ Excellent for chronic fatigue, fibromyalgia, etc.
- ▶ Promotes good sleep & circadian rhythms
- ▶ Excellent for spine health
 - Lowers pain
 - Improves mobility
 - Reduces risk of injury

Types of Exercise to Avoid

Running at the mouth

Jumping to conclusions

Climbing the walls

Pushing your luck

Types of Exercise

- ▶ **Aerobic (with oxygen)**
 - Continuous, moderate intensity
 - Oxygen transport can keep up
 - Usually uses many large muscles concomitantly
- ▶ **Anaerobic (without oxygen)**
 - High intensity, short bursts
 - Oxygen transport can't keep up
 - Produces lactic acid (ie. “the burn”)
 - Often focused on selected muscles

Types of Exercise

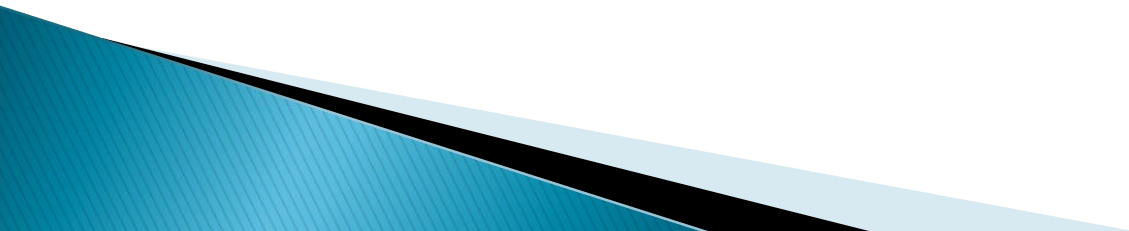
- ▶ Other exercise terms
 - Isometric
 - Isotonic
 - Isokinetic
 - Calisthenics
 - “Aerobics” or Aerobic Dance
 - Pilates
 - Interval training
 - Resistance training

A Balanced Exercise Program

- ▶ Three main categories of exercise or physical activity
 - ▶ All are important in different ways
 - ▶ No type should be neglected or left out
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- ▶ Endurance (aerobic)
 - ▶ Strength (resistance)
 - ▶ Flexibility (stretching)

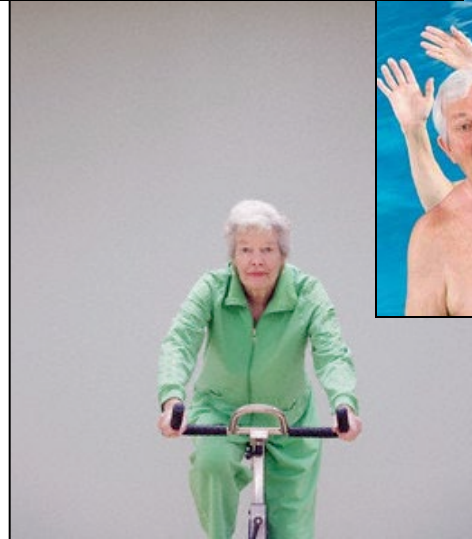
Endurance Exercise

- ▶ Greatest cardiovascular benefits
- ▶ Great metabolic benefits
- ▶ The “foundation” of any fitness program

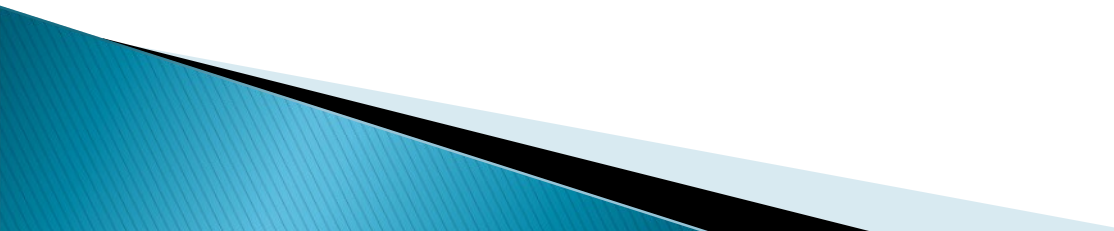


Endurance Exercise: What kind?

- ▶ Walking
- ▶ Jogging
- ▶ Swimming
- ▶ Bicycle
- ▶ X-country
- ▶ Hiking
- ▶ “aerobics”



Walking is King!

- ▶ Everyone knows how
 - ▶ Almost everyone can do it
 - ▶ Little cost: good pair of shoes
 - ▶ Low risk or injury
 - ▶ Works major muscle groups
 - ▶ Weight bearing: good for bones
- 

Walking is The Best Exercise!



Walking is The Best Exercise!

Never too Young



Walking is The Best Exercise!

Never too OLD

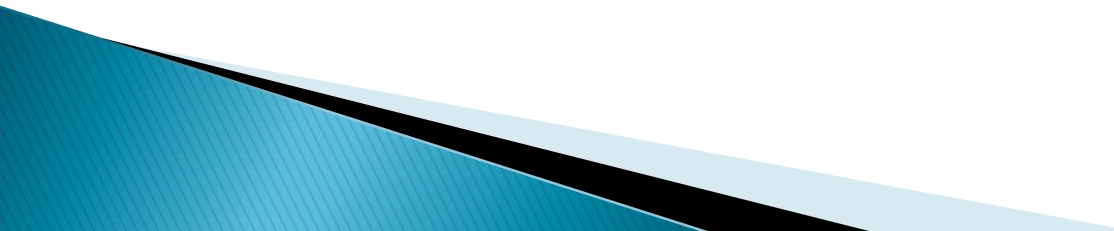


Walking is King!

- ▶ You Can Do It Anywhere
- ▶ Well Almost Anywhere



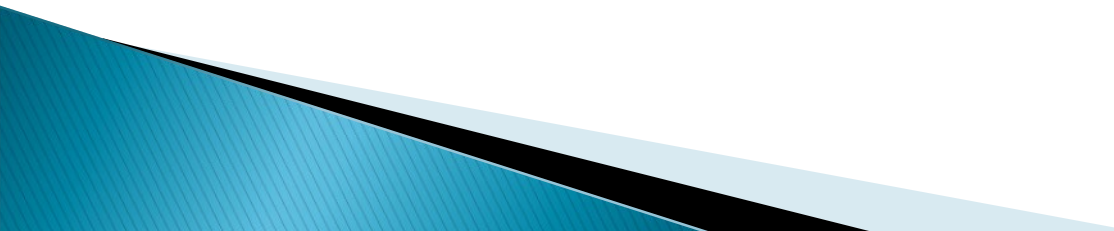
Swimming is Queen

- ▶ Includes actually lap swimming, water walking, and water “aerobics”
 - ▶ Balance of upper & lower body
 - ▶ Buoyancy protects joints, feet, skin
 - ▶ Easy on back
 - ▶ Note: not weight bearing, so not really helpful in preventing osteoporosis
 - ▶ Pool not available or convenient for many
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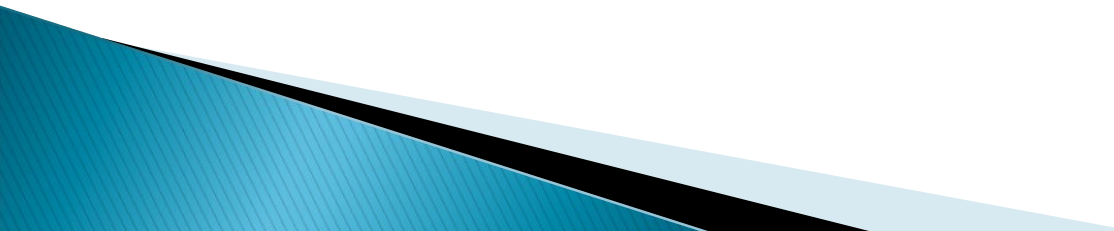
Endurance Exercise: How hard?

- ▶ The “Talk Test”
 - Should be able to talk but in a labored fashion, not able to sing.
- ▶ Target heart rate
 - $\text{Max HR} = 220 - \text{age}$
 - $\text{Target HR} = 65 \text{ to } 80 \% \text{ of max HR}$
 - Can buy HR monitors
 - Take pulse for 6 sec, multiply by 10

Endurance Exercise: How Long?

- ▶ For cardiovascular maintenance
 - 30 min continuous aerobic 3 times per week
 - ▶ For cardiovascular improvement
 - 30 min continuous aerobic 5+ X/week
 - ▶ CDC/ACSM recommends at least 30 min moderate exercise daily for health
 - ▶ WHO recommends at least 60 min moderate exercise daily for health
- 

Strength Training: The Benefits

- ▶ Increased muscle mass / BMR
 - ▶ Weight loss
 - ▶ Less demand on heart
 - ▶ Bone health
 - ▶ Mobility, decreased injuries
 - ▶ Walking by itself does not really strengthen your bones that much
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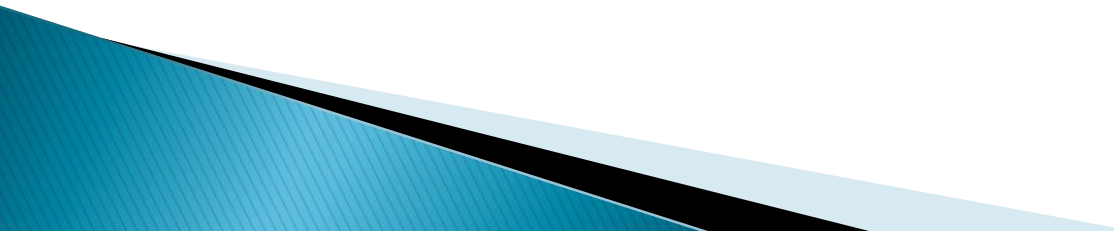
Strength Training: What kinds?

- ▶ Physical labor (i.e. farm work, chop wood)
- ▶ Calisthenics: uses body weight
 - Push ups, pull ups, sit ups, etc.
- ▶ Free weights
 - Very versatile
 - Technique important for safety
- ▶ Weight machines
 - Reliable, easy, safer than free weights

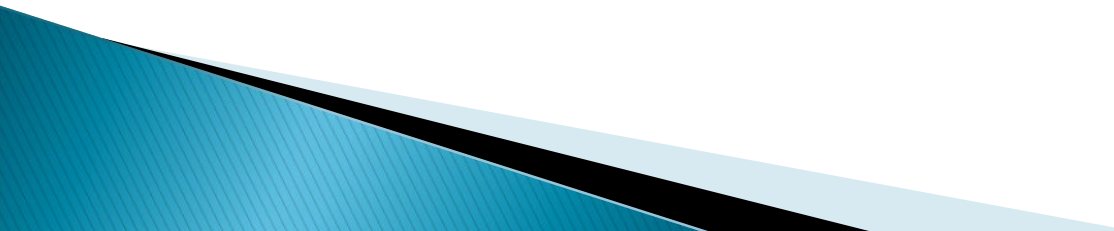
Strength Training: Who?

- ▶ Good for all people
- ▶ Women need strength training—will not become masculinized or muscle-bound
- ▶ The elderly can benefit *greatly* from a strength training program
 - Supervision and instruction important
 - Start with very light weights or rubber bands

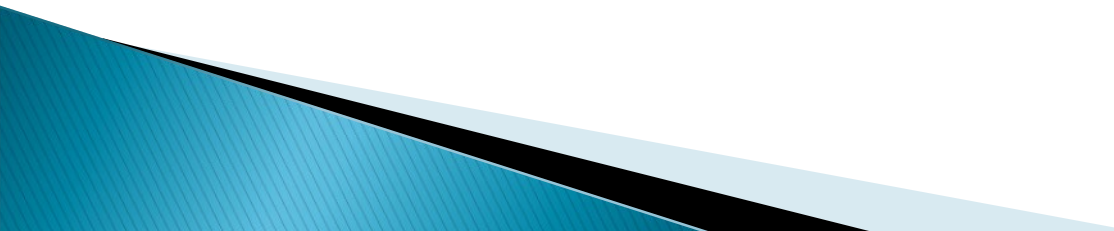
Strength Training: How much?

- ▶ Not necessary to do every day like endurance
 - ▶ Rest days help the body “repair” or “build” muscle
 - ▶ 3 days per week for 30–60 minutes is excellent
 - ▶ Program should address upper body, trunk/abdomen, and lower body
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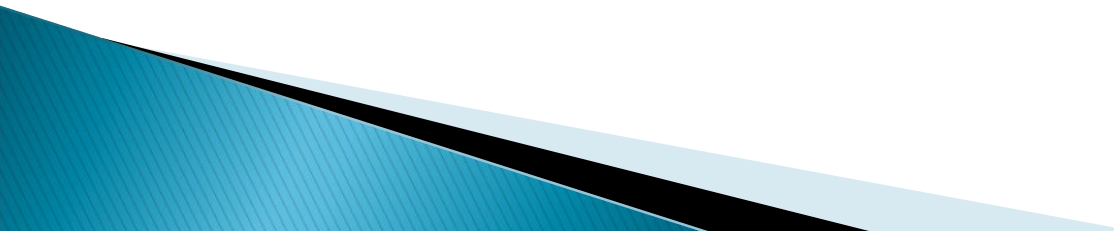
Flexibility Training: Benefits

- ▶ Increased flexibility!
 - ▶ Less risk of injury
 - ▶ Improved posture and body mechanics
 - ▶ Greater independence
 - ▶ Important in conjunction with other forms of exercise
- 

Flexibility: Important Principles

- ▶ Develop a daily program–Stretchercize!
 - ▶ Take every joint through its full range of motion at least once per day
 - ▶ Best to stretch when muscles are warmed up.
 - ▶ Part of a “warm-up” and “cool-down” time
 - ▶ Slow and steady is the key! No ballistics or bouncing!!!
- 

Putting it All Together

- ▶ Up to 60 min of moderate physical activity daily
 - ▶ 20–30 min of continuous target aerobic activity at least 3–4 times per week
 - ▶ Daily flexibility program
 - ▶ Strength training 3 times per week or more
- 

Finding the Time



Heat / Rain / Safety Concerns?



Boring?



Exercise & the Elderly

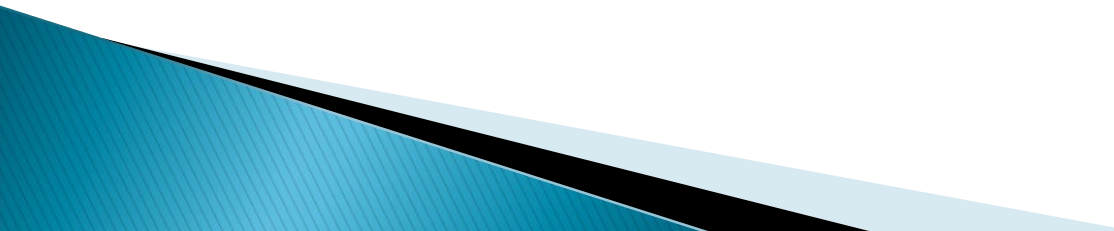
▶ Elderly

- Prevents or reverses many aspects of aging
- Improves mobility and strength
 - Greater independence
 - Lower fall risk
 - Improved recovery from illness or injury
- Improves mood, lessens confusion
- Prevents dementia
- Improves *quality of life!!!*

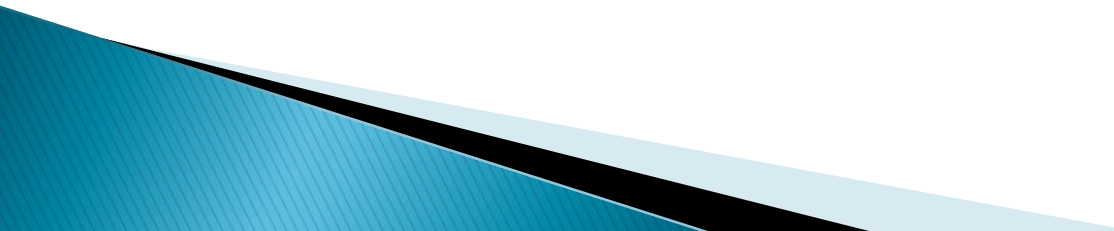
Hulda Crooks



Hulda Crooks

- ▶ Born May 19, 1896
 - ▶ “She said when she was 16 years old, she weighed 160 pounds and ate fattening farm food, with lots of meat and potatoes, milk, butter, big biscuits, and rich desserts. Mrs. Crooks said her older brother would tease her by saying that by the time she was 20, she would be as tall on her side as she was standing up.”
- 

Hulda Crooks

- ▶ Became a Seventh-day Adventist
 - ▶ Married a physician
 - ▶ Became a vegetarian
 - ▶ Husband passed away from a Congenital Heart condition when she was in her fifties
 - ▶ She began becoming more active, working outside and gardening and climbing stairs
- 

Hulda Crooks

- ▶ Climbed first mountain at age 60
 - ▶ First climbed Mt. Whitney at age 66
 - ▶ 23 successful Mt. Whitney summits
 - ▶ Last summit of Mt Whitney at age 91
 - ▶ Highest mountain in Japan Mt. Fuji at 91
 - ▶ Died at 101
 - ▶ You are never too old to start on the road to fitness!
- 