

# Stronger Muscles, Stronger Heart: Fitness for Active Aging



**Palm Beach Center for Health and Longevity**

[PBCLongevity.com](https://PBCLongevity.com)

**Your Health Coach and Today's Presenter: Curtis Arnold**



# Review

Aging is a function of cells not performing their jobs as they once did.

Mitochondria are the “engines” in every cell that produce the energy needed for all cellular processes.



# Review

- Exercise can be viewed as the single most effective medical intervention that we know.
- A one hour walk each day can add 4 1/2 years to your life.
- Exercise can reduce your risk of getting cancer.



# Review

- Cardio can reduce the risk of heart attacks and strokes.
- Cardio reduces the risk of diabetes.
- Cardio can improve mood, memory and sleep.
- Cardio lowers the likelihood of developing a chronic disease.



# Review

- **Cardio Training** increases your **VO2 Max**, the number one predictor of longevity.
- You must combine both **Zone 2 and Zone 5** Training for optimal benefits.



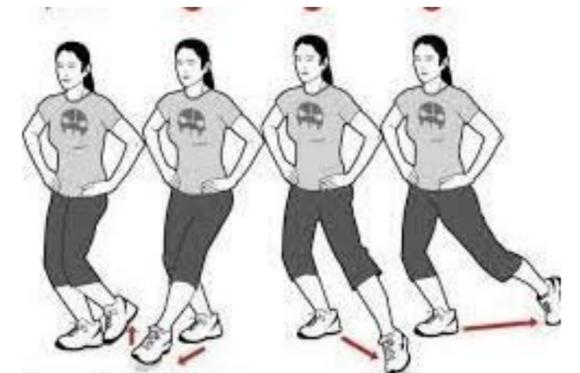
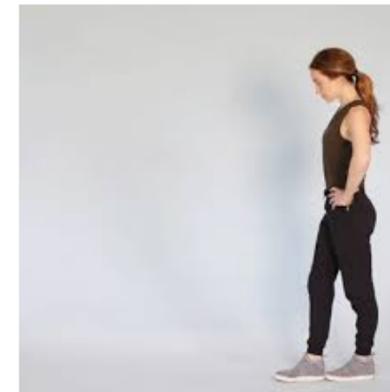
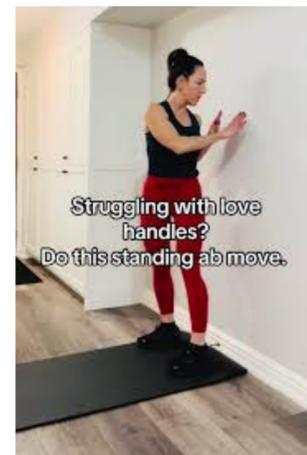
# Review

- **Resistance training** improves muscle strength, increases bone density, increases metabolic health, and improves cognitive function.
- 3 million seniors are hospitalized each year due to **falls**.
- **Balance exercises** can prevent you from being one of them.



# 10 Exercises to increase your LEG STRENGTH, HIP MOBILITY, POSTURE, and BALANCE

How to Sit-to-Stand



# Resistance Training - Functional Movements



Unlike Resistance Training exercises that younger people may do for ascetic purposes, functional exercises **mimic everyday activities**.

They are often called **compound exercises** because they usually involve multiple joints and muscles.

# Exercise #1 - Squat (Air Squat)



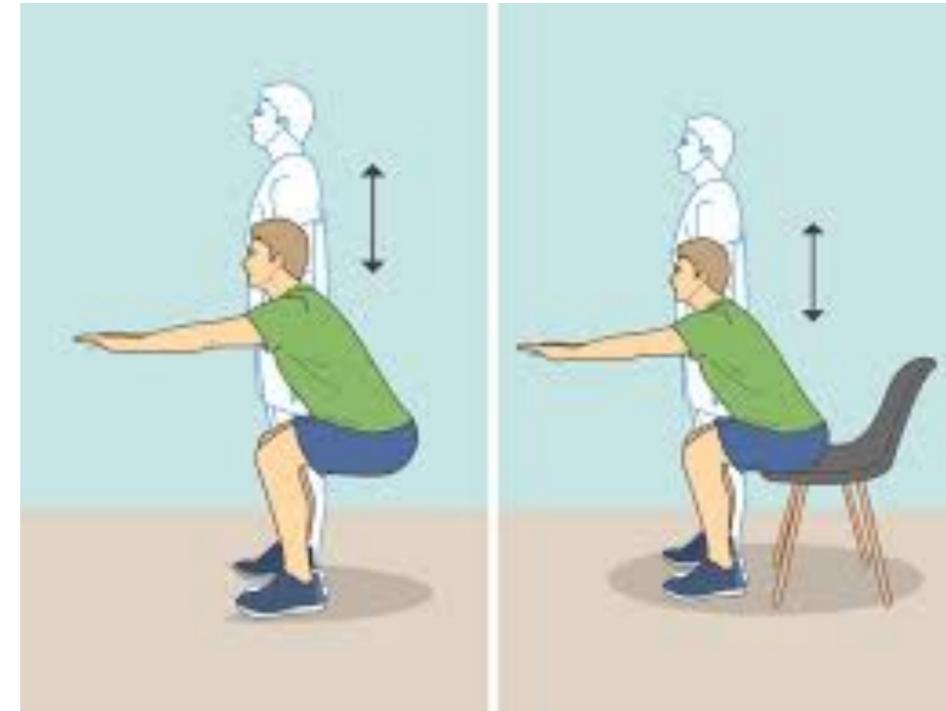
Air Squat

Mimics the movement of sitting down or standing up.

Improves leg strength and power for tasks like getting out of a chair or on and off a toilet.



# Exercise #1 - Squat (Air Squat Assisted)



It's fine to hold on to a chair or to have a chair behind you if you feel more comfortable.

Do these every day - **three sets of ten every day** or as many reps as you are comfortable with.

# Exercise #1 - Squat (Goblet Squat)



As you advance in resistance training, start doing a **Goblet Squat**.

Do this on “Leg Day” - 3 sets of ten, using a dumbbell or kettlebell with a weight that you are comfortable with.

With this exercise, **turn your feet outwards at a 45 degree angle.**

# Exercise #1 - Asian Squat (Deep Squat)



Can improve flexibility, strengthen the lower body, and promote better posture.

The knees should track over the toes with the weight evenly distributed throughout the feet.

If you experience pain, work on ankle and hip mobility first.

## Exercise #2 - Seated Leg Extensions



Targets the **quadricep muscles**, crucial for walking and balance.

From a seated position, extend one leg, then slowly lower it back down.

Try for 10 - 15 reps each with each leg.

If you belong to a gym, use the **leg extension machine**.



## Exercise #3 - Heel Raises



Strengthens **calf muscles** and **ankle stability**, which is important for walking and balance.

**How to do it:** Stand behind a chair or counter for support. Slowly rise on to your tiptoes, hold for a second, and then lower your heels back to the ground. Aim for 15 - 20 repetitions.

To increase difficulty, do one leg at a time.

## Exercise #4 - Seated Marching



Enhances hip flexor strength and coordination.

**How to do it:** Sit in a chair with your feet flat on the floor. Lift one knee toward your chest as high as comfortably possible, then lower it back down.

Alternate legs and continue marching for 1 - 2 minutes.

**Tip:** Keep your core engaged and maintain an upright posture.

## Exercise #5 - Wall Pushups



Help maintain **upper body strength** by developing the chest, shoulders, and arms.

**To do:** Face the wall with arms at shoulder height. Bend your elbows to bring your chest closer to the wall, then push back to the starting positions. Aim for 10 - 15 reps.

# Bonus Exercise for your Knees

## The Wall Sit



This is the first **ISOMETRIC** exercise we've introduced. Isometric means a static hold, as opposed to range of motion movements.

This exercise is "**low impact**" and particularly helpful for people with knee pain. You can build strength without putting excessive strength on your joints.

# Strength Training - Advanced

## Concepts and Protocols



To fully benefit from these concepts, you should be going to a gym or have plans to join.

# Strength Training



Did you know?

Only 1 in 7 Americans over 65 belong to a gym and use it regularly (2 times/week).

# Strength Training

## Key concepts - Sets and Reps.



- When starting a new exercise, pick a weight that is comfortable for you to do two sets of 10 reps maintaining perfect form.
  - The following week, do 3 sets of 10.
  - When you can manage, add one or two reps.
- 
- After you can do three sets of 12, increase your weight and drop back to 8 - 10 reps. You must increase weight or reps for muscle growth to occur.

# Resistance Training

Key concepts - Rest and Recovery.



- Muscle is torn down when you exercise.
- Muscle is built when you sleep.
- You need to rest two days between working out any muscle group.

# Strength Training

How often should I work out?

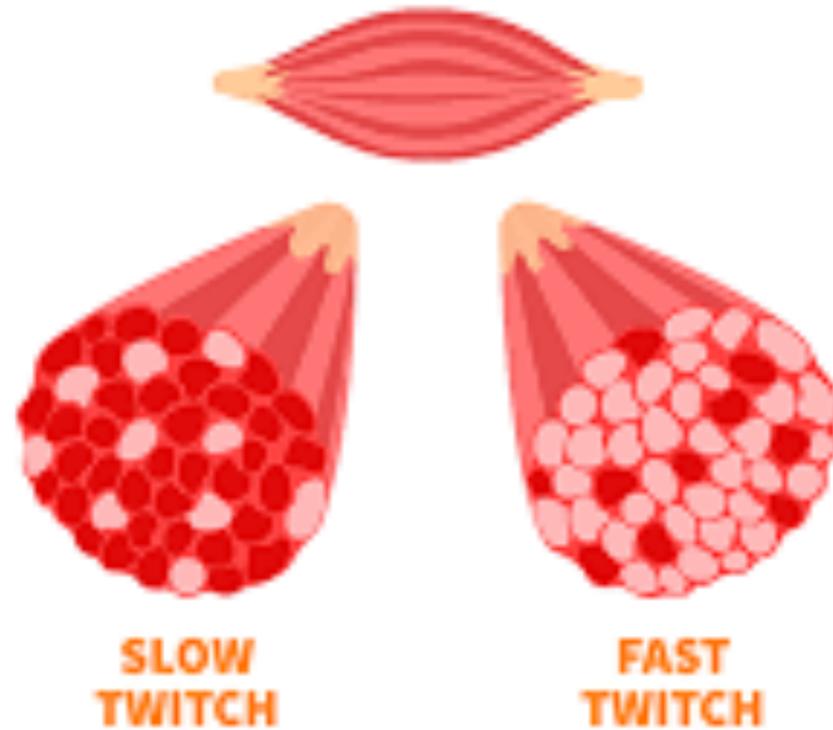


Limit your strength training to two days a week.

On other days, consider aerobic exercise or yoga.

# Strength Training

## MUSCLE FIBER TYPES



Concept: There are two types of muscle fibers - fast twitch and slow twitch.

Why is this important?

# Strength Training



You are aging and **your fast twitch muscles are aging faster than your slow twitch muscles.**

If you were in any emergency situation where you had to move quickly, likely jumping out of the way or catching yourself when you stumbled, **only your fast twitch muscles could save you.**

# Strength Training

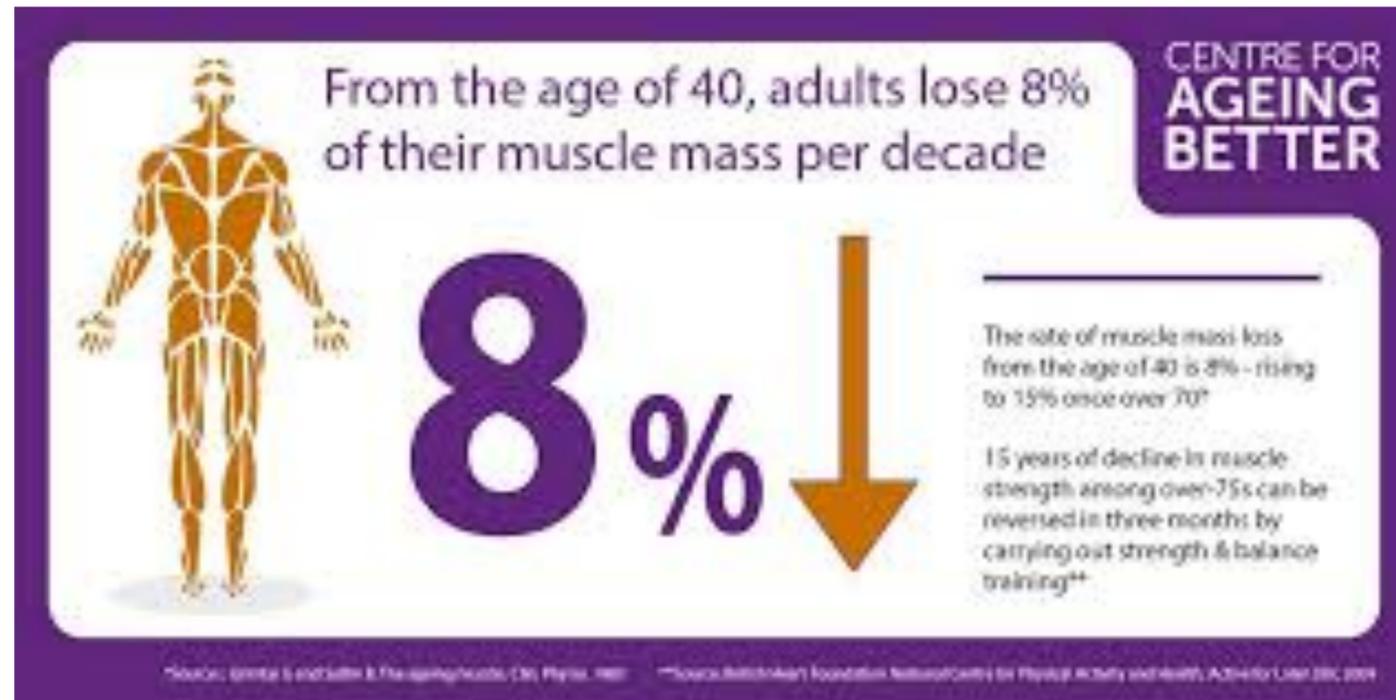
## Fast Twitch Muscles



- Designed for short bursts of **power** and **speed**.
- Used for activities like sprinting, jumping, and heavy lifting.

# Strength Training

You age in this order:



- First you lose **power**.
- Next you lose **strength**.
- Then you lose **muscle mass**.



# Strength Training

## How to train fast twitch muscles



- Sprint
- Jump
- Lift heavy

# Strength Training

## Bench Press



A core exercise, it targets chest, shoulders, and triceps.

Additionally it increases bone density and boosts metabolism.

Use dumbbells and remember to start with light weights and increase weight slowly over time.

# Strength Training

## Incline Press



Targets upper chest.

# Strength Training

## The Overhead Press

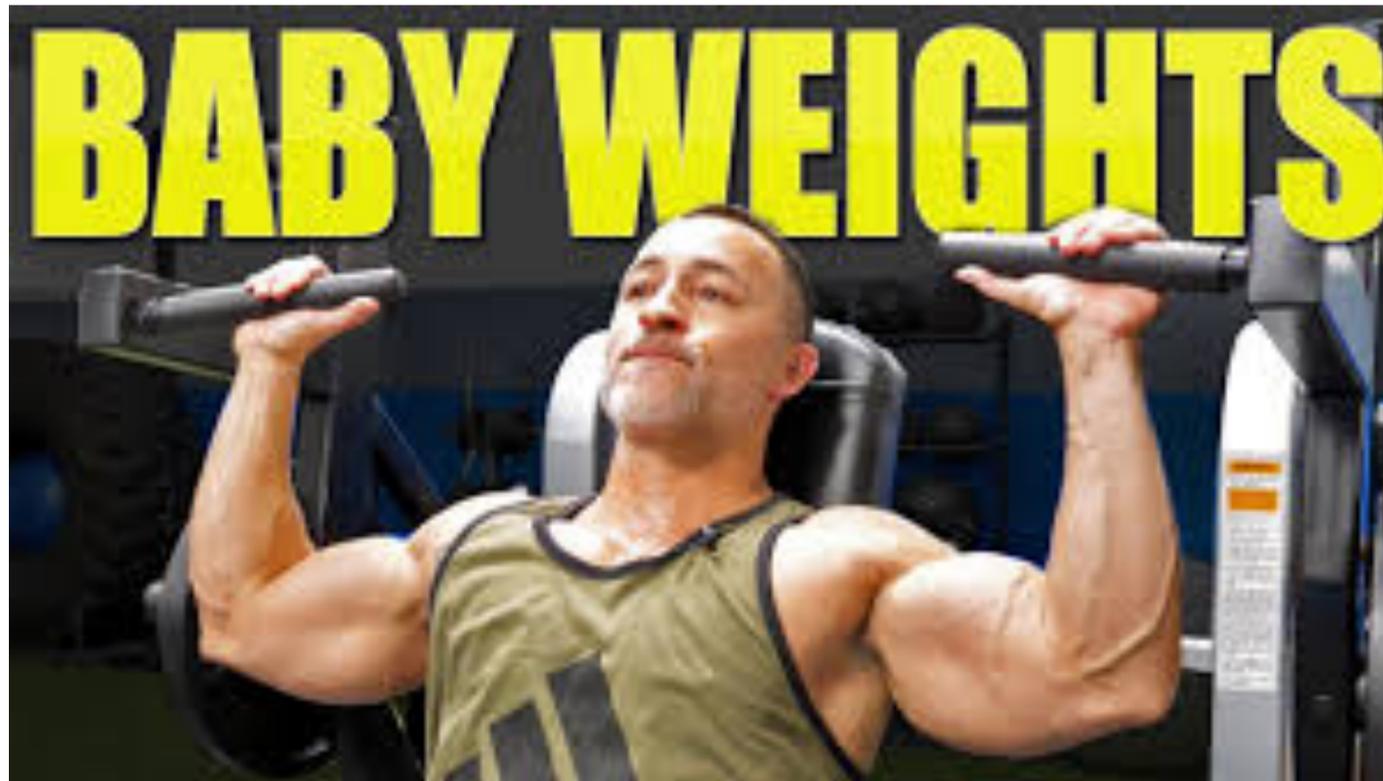


This exercise primarily **targets the shoulders**. You can do it standing up or sitting down.

Use **dumbbells** and keep them slightly in front of your shoulders to avoid shoulder strain.

# Strength Training - Protecting Joints

## Tricon Training - What is It?



- 9 reps of the same exercise divided into three styles.
  - 3 explosive reps.
  - 3 isometric holds.
  - 3 slow reps.

# Strength Training



You'll be ready to store your overhead luggage after doing your overhead presses.

# Strength Training

## Rowing



Find a **rowing machine** at the gym. There are many types and any will work.

Rowing machines provide a **full body workout** without putting stress on the joints.

This exercise has multiple benefits including **increasing stamina**, **enhancing range of motion**, and **working multiple muscle groups**.

# Assisted Pull-up



This machine allows you to do pull-ups with any amount of weight if you are unable to do regular pull-ups.

# Lat Pulldown



Lat pull downs are a popular exercise to increase **upper back strength** and create more of a V-shaped body.

# The Dead Hang



The dead hang is an exercise where you hang from a bar with your arms fully extended, allowing your body to stretch passively.

# The Dead Hang



You can work up to a one minute hang over time.

- This exercise is considered a top choice for seniors because of its wide array of of benefits.
- Improves grip strength.
- Enhances shoulder mobility.
- Stretches the spine, alleviating back pain.

# The Farmer's Walk



This exercise is a **cornerstone** for **functional fitness**.

It involves holding a weight in each hand and walking for a set distance.

It **mimics real-world activities** like carrying groceries or luggage.

# The Farmer's Walk

## Benefits



- Engages multiple muscle groups.
- Improves grip strength.
- Improves cardiovascular endurance.
- Improves overall posture and spinal alignment.

# The Farmer's Walk - Muscles Worked

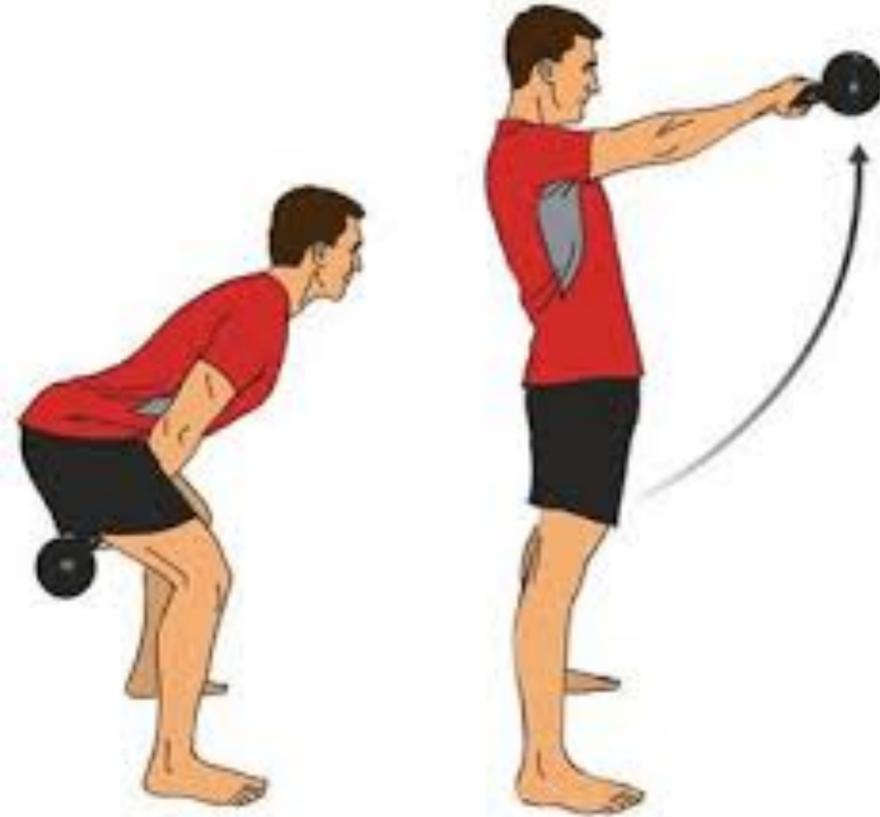


1. Quads
2. Arms
3. Chest
4. Abs

(Not pictured) - also forearms, shoulders, hamstrings, glutes, and calves.

## Benefits

# Kettle Bell Swings

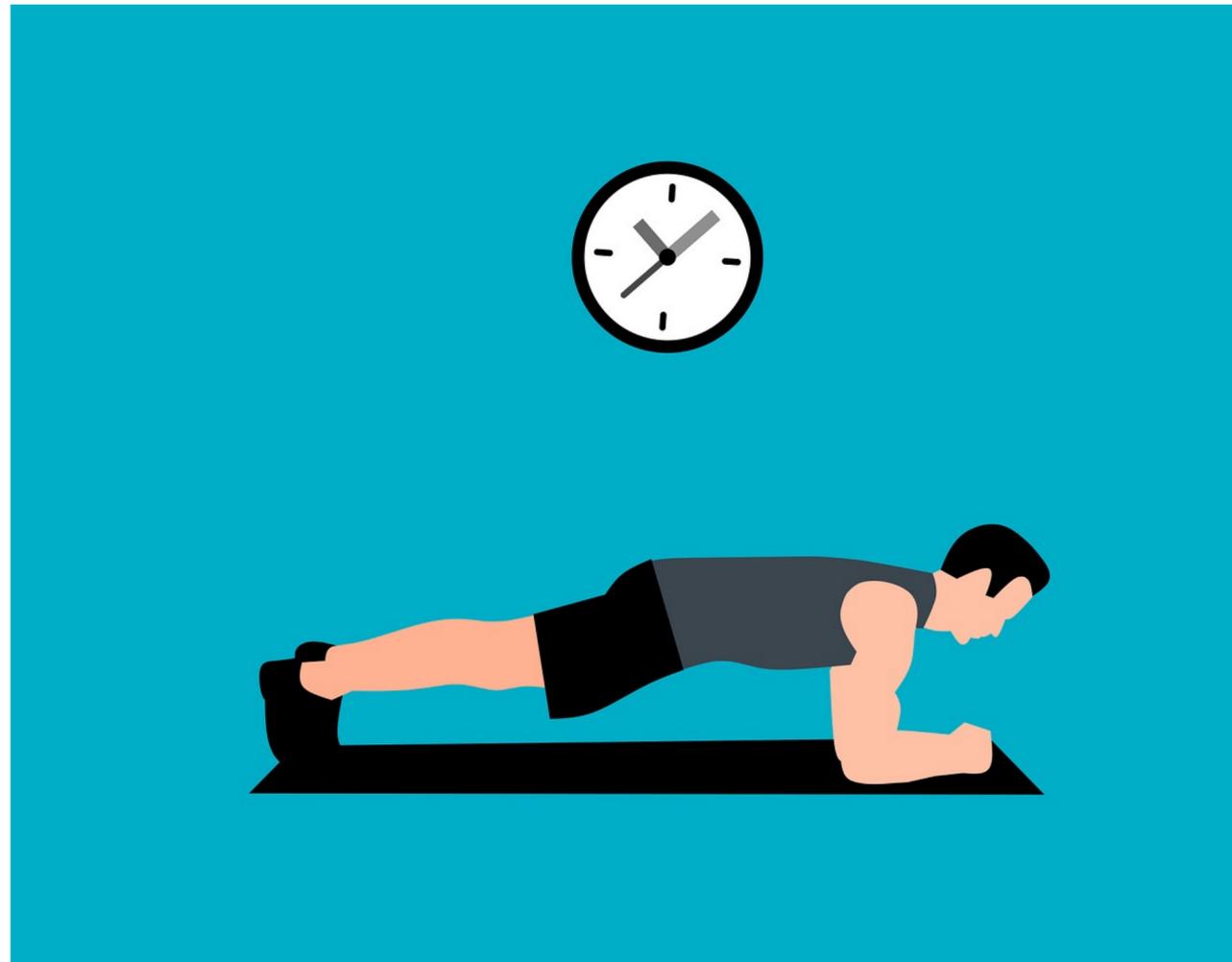


- Trains your glutes, hips, and spinal erectors.
- Qualifies as vigorous-intensity cardio, improving VO2 max.
- Burns calories comparable to a hard run.

## How To, Part 1

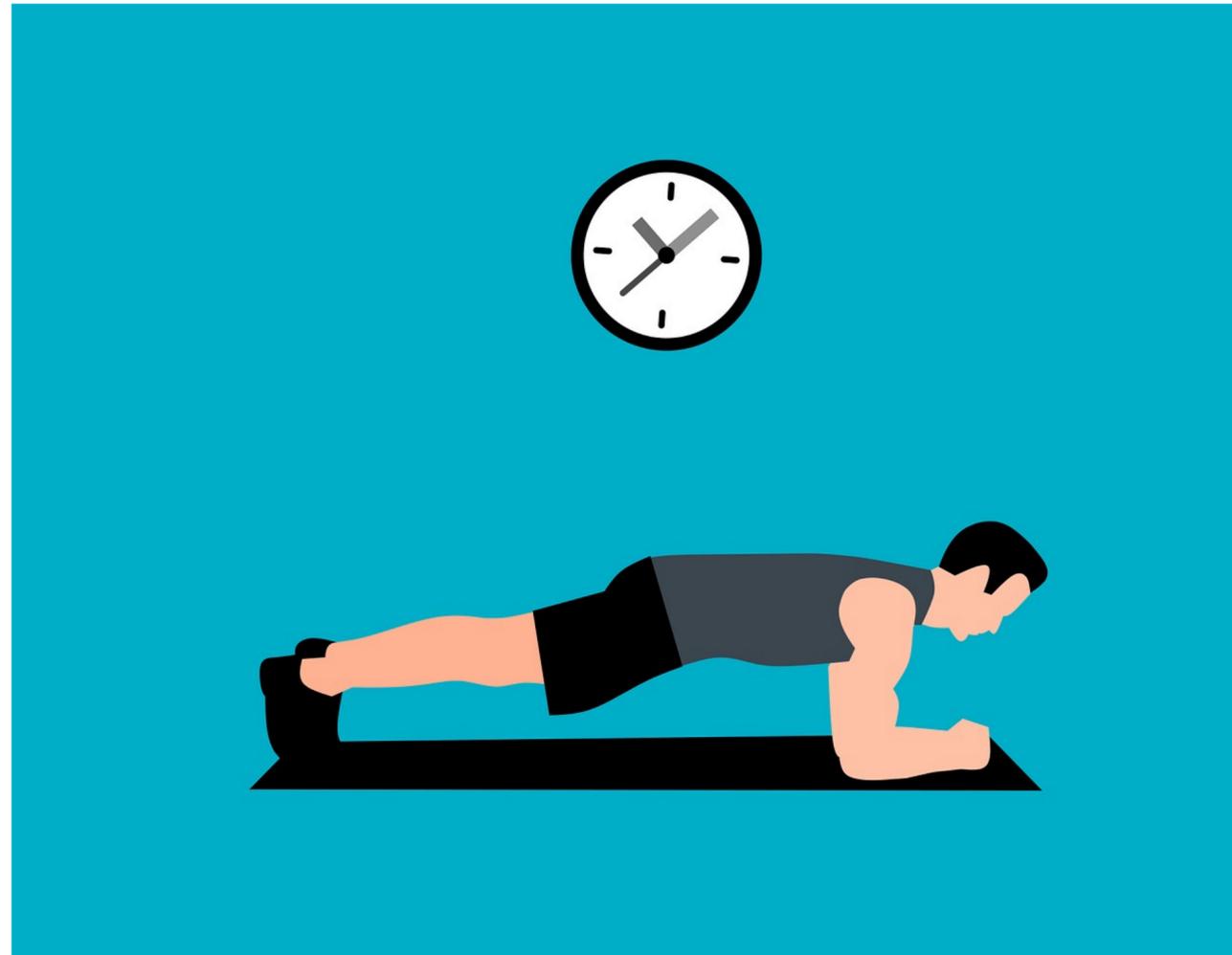
# The Plank

- Lie face down on the ground.
- Place your forearms on the ground with your elbows aligned directly under your shoulders.
- Your arms should be parallel to your body with your arms facing down.



# The Plank

## How To, Part 2



- Push up off the ground, lifting your body onto your toes and forearms.
- Engage your core. Your body should form a straight line from head to toe.
- Hold for 20 - 30 seconds and build up to longer over time.

## Benefits



# The Plank

- Planks are primarily designed to strengthen the **core muscles**.
- This will help you from **slouching** and improve your overall **posture**.
- Planks also improve your **balance and coordination**.

# The Plank - Beginners

## How To



- You may need to start on your knees rather than toes if your core is weak.
- Transition to your toes once you are able.

# The Bridge

## How To



- As shown in this illustration, lift hips gently off the floor and hold for 10 seconds.
- If you have back problems, don't go too high.

# Review



- **Sarcopenia** is the term used to describe age-related loss of muscle and strength.
- Strength training can increase **metabolic health** and improve **insulin sensitivity**.
- **Compound exercises** involve multiple joints and muscles.
- The **“wall sit”** is an excellent isometric exercise for knee pain.



# Review

- Muscle is built **while you sleep**.
- Your **fast twitch muscle fibers** age faster than your slow twitch muscle fibers.
- The **dead hang** is a good exercise for seniors because it improves grip strength, shoulder mobility, and relieves back pain.



# Review

The farmer's walk is a cornerstone for functional fitness because it strengthens so many muscles.

Everyone should work on developing their core. The plank is the most basic and effective exercise for doing that.



# Strength Training Exercises Covered Today

Air Squat

Wall Pushups

Assisted Pullups

Goblet Squat

Wall Sit

Lat Pulldowns

Asian Squat

Bench Press

Dead Hang

Seated Leg Extensions

Incline Press

Farmer's Walk

Heel Raises

Overhead Press

Kettlebell Swings

Seated Marching

Rowing

Planks and Bridges

**Mobility**





Congratulations!

In the next seminar you'll learn how some **proven alternative health modalities** can make your journey much easier. Get ready for **Beyond the Prescription Pad: Safe Alternative Tools for Longevity!**



- To begin your cardio program, try to get a **20-minute walk** in on at least 5 days this week.
- Pick one of the **strength training or mobility exercises** you learned and do it on three days.

# PEC Members



Ready to transform your life and take charge of your health?

FREE 15-MINUTE CONSULTATION - 3 convenient locations.

Email: [CoachCurtis@PBCLongevity.com](mailto:CoachCurtis@PBCLongevity.com)