

# Staying Physically Fit in a Busy World

How to Mindfully Sneak Activity into Your Daily Routine



ARIZONA ADVISORY  
COUNCIL ON INDIAN  
HEALTH CARE

# Learning Objectives

- Movement Recommendations
- Why Physical Activity in Your Daily Life *Matters* & the Unexpected Benefits of Moving More
- Desk Job? No Problem! Tips for Getting Active
- Easy Exercises for the Beginner



# How to Use This Training

- This training may be used as either an interactive lecture, or as a self-paced course.
- Materials within this PowerPoint have been written out with more details than a typical PowerPoint presentation. This has been done intentionally, so as to allow the learner the opportunity to read through it at a time that is convenient for them, while also providing enough detail to ensure all learning objectives are met.
- This presentation was made by Alison Lovell, National Academy of Sports Medicine (NASM), Certified Personal Trainer (CPT), and National Registry of Emergency Medical Technicians (NREMT) certified EMT and Wilderness EMT.
- For questions, please email Alison at [alison.lovell@aacihc.az.gov](mailto:alison.lovell@aacihc.az.gov)





A desert landscape featuring several tall saguaro cacti in the foreground and a range of rugged mountains in the background under a blue sky with scattered white clouds. The scene is brightly lit, suggesting a sunny day.

# Movement Recommendations

# Movement Recommendations

## Adults: What are the Current Physical Activity Recommendations?

### Cardiorespiratory Exercise

- At least 150 minutes of *moderate-intensity cardiorespiratory exercise*, OR
- 75 minutes of *vigorous-intensity exercise*, OR
- A combination of moderate- and vigorous-intensity exercise per week (e.g. 45 minutes of vigorous-intensity exercise and 60 minutes of moderate-intensity exercise).

### Training (AKA: Strength Training or Weight Lifting)

- 2 or more days per week, with exercises for all the major muscle groups (minimum of 1 set of 8-12 repetitions for each muscle group).

### Flexibility and Neuromotor Exercises (balance, agility and coordination)

- 2 or more days per week



# Movement Recommendations

## Children (6-17 Years of Age) : What are the Current Physical Activity Recommendations?

### Cardiorespiratory Exercise

- At least **60 minutes** (1 hour) of **moderate-to-vigorous intensity** cardiorespiratory exercise **per day, for at least 5 out of 7 days a week. This is 300 minutes (5 hours) per week.**
- This can include activities like walking, running, biking, or anything that makes their heart beat faster. At least 3 days should include vigorous-intensity exercise.

### Resistance Training

- **3 or more days per week of strength-training**, with exercises for all the major muscle groups, such as climbing and push-ups.
- **3 or more days per week of bone-strengthening exercises**, which includes vigorous, higher impact exercises, such as jumping or running.





# Movement Recommendations

## Children (3-5 Years of Age) : What are the Current Physical Activity Recommendations?

### General Guidelines

- Physical activity every day throughout the day.
- Active play through a variety of enjoyable physical activities.

**Adult caregivers of preschool-aged children (and older children) should encourage active play, movement and physical activity, rather than sedentary activities. This is especially true in the work from home era.**





# The Case for Modeling Movement Behaviors

## Why is Parental Encouragement Important?

Children are more and more exposed to sedentary lifestyles. Increasing schoolwork, screentime, and tablet/computer use all contributes to this.

- Encouragement from parents, aunts, uncles, and other adults is key in setting children up for either lifelong health problems, or lifelong *health success*.

### Why?

- Children mimic the movement patterns of their parents.
- The movement patterns we adopt in our youth, are often the movement patterns we carry into adulthood, for the rest of our lives.
  - This means that we have a window of opportunity to help young children establish lifelong healthy lifestyle behaviors, even if we did not have the same benefit.
- *The American Journal of Preventative Medicine* published a study, showing that **parental patterns of movement are a strong contributing factor for whether or not children adopt a sedentary lifestyle, and for whether they develop lifelong chronic diseases (related to sedentary lifestyles and obesity) or experience lifelong health.**
  - Chronic disease is very often linked to sedentary movement patterns, and parents who reduce sedentary behaviors and increase their movement levels, have children who do the same.
  - Patterns of sedentary lifestyle and obesity often persist in families from generation to generation, and this is thought to be partially due to modeling behaviors.



# The Case for Modeling Movement Behaviors

## Why is Parental Encouragement Important?

### Study Takeaways

- Parents (and adult caregivers of children) who increased their moderate to vigorous physical activity levels, up to 40 minutes per day, had children who mirrored their activity levels.
  - The study did not see any change when parental activity was longer than 40 minutes. Children tended to stop joining their parents after 40 minutes.
- There was a never-changing, positive relationship between parent and child minutes of sedentary behavior, for parents who were mostly sedentary. This has a 95% confidence interval!
  - What does this mean? It means that if we, as adults, are sedentary, then the children in our lives will also be.





# The Case for Modeling Movement Behaviors

## Why is Parental Encouragement Important?

### Movement Can Counteract Fat Cell Development

- Did you know that children who are sedentary will often accumulate a larger number of fat cells *for life*, predisposing them to obesity and morbid obesity, even as adults?
- This is in contrast to adults, who, if they gain weight, do not create ‘more’ fat cells, but simply experience their pre-existing number of fat cells growing larger.
- This means, that for children who are sedentary, they are more likely to develop a larger number of fat cells. This predisposes them to weight gain. This sets children up to become potentially obese or morbidly obese as adults, along with all the other associated comorbidities.
- People who make more fat cells during childhood find it easier to gain even more weight as an adult and harder to lose weight.

### The Takeaway?

- Being sedentary as a child can actually set a child up for lifelong struggles with weight and the associated chronic diseases. So...sneaking movement into our daily lives (and our children’s) is even more important!
- The good news is this is something we can easily change and become great role models for – not just for kids, but for our coworkers, family, and friends too!
- Kids are setting habits that will alter their metabolism, and even the structure of their bodies, as a child, based on how much they move.

# The Case for Moving More

## Statistics (In Case You Need to Justify to HR WHY You Need to Take Walking Breaks? Well, We Got You! ;))

- Fewer than **1 in 4 adults (24.2%)**, over the age of 18, met the minimum Physical Activity Guidelines for both aerobic and muscle-strengthening exercise, per the National Health Interview Survey.



- Fewer than **1 in 4 children (21.6%)**, between the ages of 6 and 19, met the Physical Activity Guidelines for aerobic and muscle-strengthening exercise, per the National Physical Activity Plan Alliance.





# The Case for Moving More

## Other Movement Statistics

- **46.3% of Adults, over the age of 18, failed to meet any of the physical activity guidelines**



- Non-white individuals, including American Indians and Alaskan Natives (AI/AN), were less likely to meet the Physical Activity Guidelines, emphasizing disparities.

*This is a concern, since physical inactivity has been linked to not just heightened risk of many preventable chronic diseases, but it is also a risk factor for severe COVID-19 and other respiratory illnesses.*

Individuals with COVID-19, who are inactive, have been found to have a:

- **2.26 times greater risk of hospitalization**
- **1.73 times greater risk of admission to the Intensive Care Unit (ICU)**
- **2.49 times greater risk of death**

**Physical inactivity also makes other health conditions worse.** These conditions, such as diabetes, obesity, hypertension and coronary artery disease, are known to lead to poor outcomes with COVID-19 and Influenza illnesses, such as hospitalization or death.

Source: Data collected in 2020 by the National Center for Health Statistics:  
<https://www.cdc.gov/nchs/data/data/briefs/db443.pdf>;  
<https://bjsm.bmj.com/content/bjspo/55/19/1099.full.pdf>

# The Case for Moving More

## Movement and American Indian Communities

Movement has long been a part of important cultural activities for American Indians (AI) in Arizona. Activities from herding, sheep shearing, to running are only a few.

- However, many barriers still exist that can impede the amount of time and resources that AI individuals can spend on movement. Things like far drive times for work or to obtain basic necessities, such as water and food (i.e. food deserts are significant in Arizona), or even medical care, remove the time someone could have otherwise spent moving their bodies, and increases their time spent in a sedentary position.
- Additionally, traditionally Tribal communities spent significant amounts of time moving their bodies, but over time, with colonization and the increase in dependence upon technology, the available time for traditional movement-based activities has grown to be less and less.





# The Case for Moving More

## Movement and American Indian Communities

### ***Poverty is a significant concern.***

- In 2021, more than 24% of AI/AN households were below the federal poverty line, compared to 15% of the U.S. population as a whole.
- **Per the Kids Count Data Center and Census Bureau, in 2021, more than 55 percent of AI/AN children were living below 200% of the federal poverty level.**
- *It is anticipated that over 55% of AI/AN adults are also living below 200% of the federal poverty level.*

Poverty contributes significantly to movement, meeting physical activity recommendations, obesity, and associated chronic health conditions.

- Adults with a family income of ***less than 200% of the federal poverty level were far less likely to meet minimum physical activity recommendations.***
- This encompasses the majority of AI/AN households as of 2021, predisposing AI/AN adults and children to poor health outcomes.



# The Case for Moving More

## Movement and American Indian Communities

### Higher poverty creates barriers to exercise such as:

- Living in less walkable areas;
- The need to work longer hours to make ends meet, reducing the amount of free time available for movement and exercise;
- Higher rates of preventable diseases and health problems, which can impede the ability to exercise;
- Less money for extracurricular activities for children;
- Less money for purchasing exercise equipment;
- An increase in multi-generational households, with less space available for "at-home" exercising;
- Less access to more expensive, healthy and nutritious food options that can help the body recover from exercise, such as adequate protein and micronutrients;
- Schools in low-income areas having fewer facilities for physical activity and a lower diversity of intramural activities than those in high-income areas;
- More responsibilities, such as being the sole caregivers for aging parents and children, when funds and resources for assistance are not available, resulting in less time for exercise;
- And many more exercise barriers!



# The Case for Moving More

Despite the significant Social Determinants of Health (SDOH) and obstacles, such as poverty, food deserts, and long drive times that contribute to time spent sedentary, away from traditional activities, there is cause for a LOT of hope!

- AI/AN communities are *resilient*.
- This resiliency can allow us to begin to move our bodies more.
- We can do this, despite the significant obstacles faced by long drive times to work and to obtain basic necessities, by sneaking activity into our daily lives.
- Sneaking Physical Activity and MOVEMENT into our daily lives, is a way to begin to counteract this trend of poor health outcomes.





Why Physical Activity in Your Daily Life  
*Matters &*  
The Unexpected Benefits of Moving More



# Benefits of Movement

## Movement Has a Direct Effect On:

- Cognitive Ability
- Dementia Risk
- Blood Sugar Levels & Diabetes Risk
- Immune System Function & Resistance to Infectious Diseases, such as COVID and Influenza
- Hormone Levels
- Cholesterol
- Cancer Rates
- Bone Density
- Sleep – Who *Doesn't* Want Better Sleep?
- Mood & Stress Levels
- Weight & Obesity
- Life Expectancy
- Gastroesophageal Reflux Disease (GERD)
- Increase Energy
- Signs of Aging
- Joint Pain and Stiffness



# Benefits of Movement

## Cognitive Benefits

Movement and exercise can make you smarter.

- No, we're not kidding! Per Harvard health, "Many studies have suggested that the parts of the brain that control thinking and memory are larger in volume in people who exercise than in people who don't. One finding is that engaging in a program of regular exercise of moderate intensity over six months or a year is associated with an increase in the volume of selected brain regions."
- Exercise can also boost memory and thinking by improving your circulation.
- Additionally, there is a domino effect stemming from increased movement and exercise, that results in memory and thinking being indirectly improved, by improving mood and sleep. Additionally, it is well-known that stress and anxiety, along with depression, can cause memory problems and other forms of cognitive impairment. Movement and exercise can help to reduce stress, anxiety, and depression, having a trickle-down effect of improving memory and cognition.



# Benefits of Movement

## Dementia Prevention

Less movement and physical activity has been shown to increase a person's risk of developing dementia.

- Studies looking at the effects of movement and exercise in middle-aged or older adults have reported improvements in thinking and memory, and reduced rates of dementia.
- Regular exercise may allow individuals to be 20% less likely to develop dementia, when compared to individuals who do not regularly move and exercise. This percentage calculation was the result of a meta-analysis reviewing the results of 58 studies into exercise and dementia.
- Individuals who exercised the least (the bottom 10%) were more than twice as likely to develop Alzheimer's disease as the ones who exercised the most (the top 10%).



# Benefits of Movement

## Blood Sugar Control

Increased, purposeful movement meant to increase physical activity can actually lower your blood glucose for up to 24 hours or even more after your workout, because increased movement can make your body more sensitive to insulin.

- Please note, that if you are diabetic, please talk with a healthcare provider prior to beginning a movement routine.

### So how does this work?

- When you exercise, your muscle cells become more sensitive to insulin. This allows them to be able to better use any available insulin to take up glucose during and after your activity. It's your body's way of making sure you have enough energy to perform the physical activity!
- When your muscles contract during vigorous movement, your cells take up glucose and use it for energy whether insulin is available or not.
- That is how exercise can lower blood glucose levels in the short term.
- When you move more and are physically active on a regular basis, regular fitness can also lower your A1C.

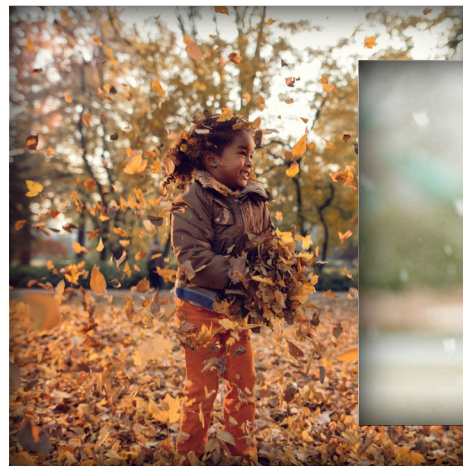




# Benefits of Movement

## Immune System Boost

- Exercise improves our circulation and immune cell production.
- Immune cells (cells that fight pathogens, such as viruses, bacteria and fungal infections that can make us sick) circulate in our body constantly. Through exercise we increase the movement of blood and lymph (which contains white blood cells), since our circulation improves.
- Exercise also increases the production of natural killer T-cells, which are essential for maintaining an optimum immune response.
- Not much exercise is needed to get an immune boost. ***Only 20 minutes of brisk walking 4-5 times per week has been shown to significantly improve the body's immune response.***



# Benefits of Movement

An entire course could be taught on the unexpected benefits of moving more and increasing physical activity.

- However, let's get into how to increase movement to start reaping some of the benefits we've already talked about!



A desert landscape featuring several tall saguaro cacti in the foreground and a range of mountains in the background under a blue sky with scattered white clouds. The text is centered in the upper half of the image.

# Desk Job? No Problem!

## Tips for Getting Active



# Sneaking Movement Into Your Daily Life

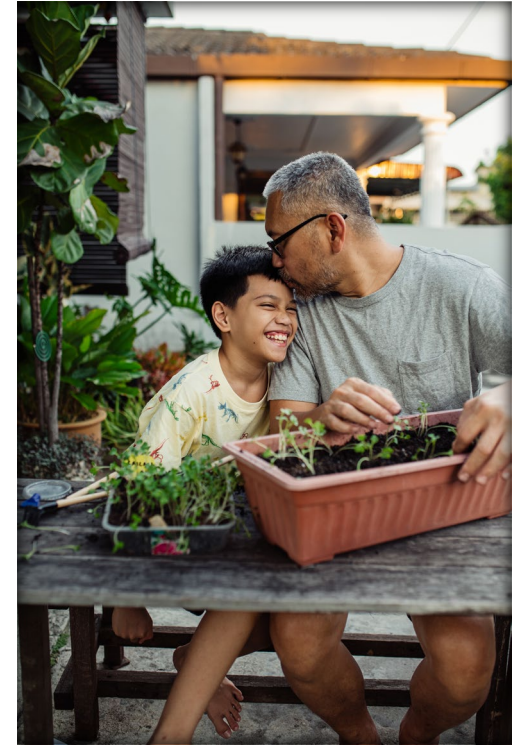
## What Does “Daily” Movement Look Like?

Movement and exercise does *not* simply refer to going out and jogging, running, or lifting heavy weights.

- In fact, most of us simply do *not* have that type of time to dedicate to exercise!

So, what can movement look like for those of us who are extremely busy (and often sedentary due to work and family commitments)?

- **Cardiorespiratory Exercise** can be anything that increases your heart rate and breathing. It can be walking outside, briskly or slowly depending on your baseline fitness level. It can be cleaning, gardening, drumming, dancing, or even sheep-shearing.
  - There was a study that found that daily physical tasks such as cooking and washing can reduce the risk of Alzheimer's disease! So even light amounts of cardiorespiratory exercise can prove beneficial.
- **Resistance Training** has the dual benefit of often serving as *both* cardiorespiratory exercise *and* strength training. The key is to do some type of movement that puts resistance on your muscles. Body weight can be used for this – weights are not needed!
  - This can include things like moving and lifting boxes, doing simple calf raises while standing and brushing your teeth, or (get this) sitting down verrrrrry slowly when sitting down into a chair, creating a ‘mini-drawn out squat’.



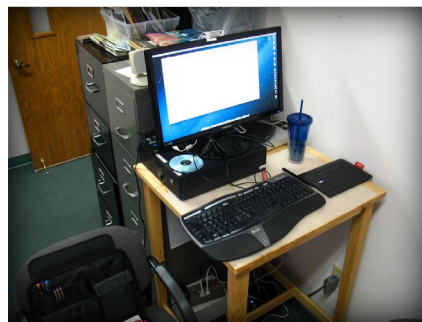


# Sneaking Movement Into Your Daily Life

## Sneaking Movement in at Work

Not everyone has a treadmill desk or access to a gym during the day. So here are some general ways you can increase your movement throughout the day:

- Take the stairs, every...single...time.
- Park far away from the building you are in, *especially* if you have to carry things in and make multiple trips!
- Do you have a one-on-one meeting with someone you collaborate with at work? If you don't need to use a computer screen, make it a walking one-on-one and brainstorm together on the go! Studies have found that after movement and exercise, the increased blood flow to our brains actually improves our memories and makes us more creative!
- Suggest standing meetings, where, instead of sitting and watching a slide deck, everyone stands! If you work at home, you can almost always do this!
- Get creative with creating your *own* standing desk. Not everything has to be an expensive one!



# Sneaking Movement Into Your Daily Life

## Sneaking Movement in at Work

### The “In-Between Meeting” Sneak!

- Did your meeting at work end early?
- Do you have 2-5 minutes before the next one starts?

### **STAND UP AND MOVE!**

This is your opportunity to get some movement in, without decreasing your productivity!

Do one of the following for 60 seconds!

- Calf or “toe” raises
- Walk in place with high-knees!
- Job in place
- Jumping jacks!
- Place a hand on your desk or the back of a non-rolling chair, and stand on one leg to practice balance exercises
- Do squats, slowly lowering yourself down into a non-rolling chair
- If you have two water bottles, or are at home and have small hand weights, curl them!





# Sneaking Movement Into Your Daily Life

## Sneaking Movement in at Home

You do not need a gym or advanced equipment to move more and do strength training. All you really need is a clear space at home, free of clutter, where you can do a quick “workout”.

### 1. Repurpose “TV Time”

- A workout can be done in front of your television screen or computer, while watching or listening to music or your favorite songs, or it can be done while outside your home viewing nature or the city.
- In the upcoming slides, we will go over some easy exercises for beginners that can be done at home, without weights, while still giving you a full body “workout” and ensuring that you have enough movement to get some cardiorespiratory time in as well!

### 2. Make Chore Time FUN!

- Turn on some music or put in some headphones and listen to a podcast while you sweep, dust, do dishes, or fold laundry. Sway those hips! Do toe raises in between things! The point is to enjoy what you are doing and MOVE more while you do it.

### 3. Don't. Wait. To. Get. Up. (AKA: Don't. Group. Movements)

- This one may sound a little odd, but people who have better levels of fitness and who are at normal BMI's, tend to *not* group movements.
- Example: If you are eating dinner on your couch, watching television, you might finish your meal and simply leave your plate sitting there until the ‘next time you get up.’ Don't do this. Instead, get up *right* away and put it away, regardless of what you are watching. People who move more burn more calories, have better muscle tone, better overall health, and tend to not group movements like this.



# Sneaking Movement Into Your Daily Life

## Sneaking Movement in at Home

### 4. Fidget

- No, we are not kidding. Fidgeters, on average, tend to burn approximately 350 more calories *per day*, just from bouncing their leg, tapping their foot, twirling a pen, or whatever ‘fidget’ fits your fancy.
- Fidgeting can allow your basal metabolic rate (BMR) to actually increase while you are fidgeting.
- Additionally, fidgeters have been found to have better BMIs and overall fitness. So, join in!

### 5. Sneak in movement in between your adulting activities

- You don’t have to get all hot and sweaty every single time you do resistance training or squeeze in cardiorespiratory training. You can get in short bursts of it in between things! Here are some examples of how:
  - On hold for a phone call? Take some hand weights and do some light exercises. Alternatively, do push ups against the countertop! You could even pace while waiting for the representative to answer.
  - Waiting for your hair to curl or be straightened? Do calf raises (also known as toe raises) while you stand there.
  - Going to get the mail? Jog to the mailbox, rather than walking sedately (assuming your mailbox is not super far away).
  - And most importantly, increase the number and time spent participating in traditional, culturally significant activities. Things like wild-food harvesting can count towards increasing your movement.



# Sneaking Movement Into Your Daily Life

## Timing is Everything

One of the biggest enemies we have to getting movement in during our day, is *timing*.

Some recommended times to squeeze movement in are:

- First thing in the morning, right after you get out of bed, before you start in on the day's activities and get distracted.
- “Micro-workouts” throughout the day in 5-10 minute increments (or even less if that's all you have time for), where you do *one* type of exercise or movement for the duration of it
- If you are socializing, convince your family, friends, or coworkers to join you in walking and talking, or perhaps walking in place while watching a move together.



A desert landscape featuring several tall saguaro cacti in the foreground and a range of rugged mountains in the background under a clear blue sky with light clouds. The text is overlaid on the center of the image.

Easy Exercise for the Beginner  
No Equipment or Gym Needed!

# Things to Do Prior to Beginning a Movement Program

## Health Disclaimer

Before beginning *any exercise program*, you should first check with your health care provider, to make sure you are healthy enough for exercise.

- While participating in physical activity is safe for **MOST** people, **you should ask yourself basic questions prior to beginning an exercise program, so you know whether or not you should seek further advice from your healthcare provider** prior to becoming more physically active.
- A Physical activity readiness questionnaires (PAR-Q) can help.



# Things to Do Prior to Beginning a Movement Program

## PAR-Q Questions

The PAR-Q was created by the British Columbia Ministry of Health and the Multidisciplinary Board on Exercise and is endorsed by the American College of Sports Medicine (ACSM) and the National Academy of Sports Medicine (NASM).

- Before starting a fitness or movement program, ask yourselves the following questions. If your answer is **YES** to any question, make sure to talk with your healthcare provider prior to starting a program.
- It is always good practice to talk with your healthcare provider prior to starting an exercise program.

1. Has your healthcare provider ever said you have a heart condition *or* high blood pressure?
2. Do you ever feel pain in your chest when you are at rest, moving around during your daily activities (e.g. bathing, cooking, getting out of bed and dressed, brushing your teeth, walking up or down stairs, carrying groceries, etc.), or when you do physical activity, such as walking or lifting heavier objects?
3. Do you ever lose your balance because you got dizzy (e.g. vertigo, room spinning, etc.) or do you ever lose consciousness?
4. Have you ever been diagnosed with any other chronic or significant health condition, such as diabetes or cancer?

5. Is your doctor currently prescribing drugs (for example, water pills, blood pressure medication, etc.) for any chronic health condition?
6. Do you have any orthopedic problems (bone or joint problems, and/or damage to soft tissues, such as muscles, tendons, or ligaments) that could be made worse by a change in your physical activity?
7. Has your healthcare provider ever said you should not do physical activity unless medically supervised?
8. Do you know of any other reason why you should not do physical activity?



# Beginner Movements

## Core Exercises for the Beginner

- Core exercises focus on the lumbo-pelvic-hip complex, which includes muscles in the lumbar spine, abdomen, pelvis, and hips.
- They are responsible for spinal and pelvic stability
- These are important not simply for your day-to-day life, but also allow you to sit in a chair for longer hours, with less pain. They help you to maintain positive posture.

### **Plank**

***(Core Exercise:  
Abdominals and  
Spinal Erectors;  
also Shoulders  
and Chest)***

(1) Lay on the floor with your elbows under your shoulders, hands flat on the floor.

(2) Keeping your forearms and toes on the floor, slowly raise yourself upwards until your body is in a straight line from your knees to your head.

(3) Hold the position for as long as you can.



# Beginner Movements

## Core Exercises for the Beginner

### **Bird Dog**

**(Core Exercise:  
Core, Erector  
Spinae,  
Multifidus)**

- (1) The starting position is on all fours on the ground. (On your hands and knees.)
- (2) From this position, stretch your right leg out behind you. Try to get the leg as straight as possible, so that it is in a straight line with your back and shoulders. Maintain a straight spine position, do not allow hips to twist or rotate. Do not hyper-extend low back when extending leg.
- (3) At the same time as you stretched your right leg out, simultaneously lift your left arm. Stretch your left arm out straight in front of you. Keep it as straight as possible, so that it is in line with your shoulders.
- (4) Remember, Step #2 and Step #3 are done at the same time.
- (5) Pause momentarily. Hold the position for a few seconds. (10-15 seconds if you can)
- (6) Lower your leg and arm at the same time, and return to your starting position on all fours.
- (7) Repeat the exercise, switching sides.



# Beginner Movements

## Core Exercises for the Beginner

### **Superman Flutter**

**(Core Exercise:  
Lower Back)**

(1) Start by laying face-down on the floor, with your arms stretched out over your head, and legs straight.

(2) Raise one arm and the opposite leg straight up, about 6-18 inches off the floor.

Do this at the same time.

(3) Lower both, then repeat with the other arm and leg.

Do these alternating flutters for one minute.





## Core Exercises for the Beginner

# Beginner Movements

## Floor Bridge

*(Core Exercise:  
Lumbar, Glutes,  
Abdominals,  
Groin)*

(1) Lay on your back on the floor with your feet flat on the ground and your knees bent at 90 degrees. Your feet should be hip-width apart.  
(2) Place your arms down at your sides.  
(3) Lift your hips and butt up, off the floor. This is called "bridging" because your body looks like it has made a bridge. As you do this tighten your glutes and abs. The end position should have your body in a straight line from your knees down to your shoulders, as shown in the below image.



(4) Once in the final, "bridge" position (shown above), pause. You may hold the position if you like.  
(5) Slowly lower your hips and butt back down to the floor.  
(6) Repeat.  
(7) **Reminders:** Do not arch the back. Keep the ribs down and shoulders blades pinched throughout. When performing this exercise, do not raise the hips too far off the floor, as this will hyperextend the lower back and put excess strain on the lower spine.



# Beginner Movements

## Core Exercises for the Beginner



### **Abdominal Twist**

*(Core Exercise:  
Obliques, and  
Glutes)*



There are several ways in which Abdominal Twists, also called Russian Twists, can be done. The variations have different levels of difficulty.

#### **For beginners:**

- (1) Sit on the ground with your knees slightly bent and your feet flat. Fold your hands in front of your chest and lean back at a 45-degree angle. (See top image to left.)
- (2) Keeping your hips stationary, gently rotate your torso to the side in a smooth motion.
- (3) Hold briefly, then reverse back through to the start position.
- (4) Repeat the movement, only this time to your opposite side.

#### **To increase difficulty:**

- You can add light weights, a ball, or even a water bottle to increase resistance. Hold the object in front of your chest. (See middle image to left.)
- You can also raise your legs straight out in front of you in a "6 inches" position (heels off the floor by 6 inches), and maintain this position when doing the twists; or
- If unable to keep your legs straight, you may keep your knees bent and lift your feet off the ground, bringing your knees a little closer to your chest. Maintain this position with your feet off the ground as you go through the movement. (See bottom image to left.)

# Beginner Movements

## Core Exercises for the Beginner

### **"6 Inches"** (Core Exercise: Abdominals)

- (1) Lay on your back on the floor
- (2) Keeping your legs straight, lift your legs off the floor, so that your heels are approximately 6 inches off the ground.
- (3) Modifications: You may lift your head and shoulders slightly, or keep them flat. You may also keep your hands flat at your sides, or place them underneath your glutes to help prevent lower back strain.
- (4) Hold the position as long as you can, then lower legs back to the ground.



# Beginner Movements

## Core Exercises for the Beginner

### **Crunches**

**(Core Exercise:  
Abdominals)**

- (1) Lay on your back on the floor, and bend your knees at a 90 degree angle. Keep your feet flat on the floor.
- (2) Putting your hands behind your head (you may also fold your arms across your chest to avoid neck strain) lift your shoulder blades off the floor. Do **not** sit all the way up. Doing so will cause strain to your lower back.
- (3) Squeeze your abdominal muscles as you do the movement.
- (4) Lower your head and shoulders back down to the starting position.



# Beginner Movements

## Core Exercises for the Beginner

### **Warrior III** **Poses** *(Core, Hips, Glutes, and Ankles)*



There are many variations of Warrior III poses in yoga; however, they all have similar benefits. They help you to develop strength in your core, ankles, hips, and glutes, all of which are essential for sheep shearing. To perform a warrior pose:

- (1) Stand near something you can grab onto for balance, if needed.
- (2) Stand on one leg, then slowly lower your torso so that it's parallel to the ground while lifting one leg (floating leg), so it is also parallel to the ground. This should result in a straight line being formed between your head, neck, spine, and leg. (Image to left.)
- (3) You can then do variations of the pose, by stretching arms out in front of you, stretching arms down towards the floor, or even slowly rotating your torso to the side.





# Beginner Movements

## Forearm, Wrist, and Grip Strength Exercises for the Beginner

It is important to maintain good forearm, wrist and grip strength, especially as we age, and for those who lead relatively sedentary lifestyles. This is a frequently overlooked area of muscle strengthening.

Together muscles of your forearm, wrist and hand allow you to rotate your hand and maintain good grip strength when working with any greppable object.

### Forearm

Between your upper and lower forearm, there are 19 muscles that help in activities important to indigenous cultures, like sheep shearing, along with daily activities like opening a water bottle. The muscles on both the underside and the top of your forearm allow you to:

- Bend, flex and extend your wrist and fingers.
- Move your hand toward your body and turn your hand away from your body.
- Turn the palm of your hand to face down.
- Muscles located deep inside of your forearm help to:
- Control the top joints in your fingers.
- Move your thumb joint.
- Turn your palm to face up or down.

### Wrist

Flexor and Extensor muscles of the wrist help in extension and flexion of your hand and fingers.

### Grip

There are over 30 muscles in the hand, and they work together to help you grip things (close your fingers around an object, like shears, and hold on with strength) and to move your fingers in a highly complex way. Movements of the hand are mostly started by muscles in the forearm, that extend through the wrist.

# Beginner Movements

## Forearm, Wrist, and Grip Strength Exercises for the Beginner

### ***Farmer's Walk***



- (1) Use an overhand grip to carry weights, weighted objects or bags, with your arms alongside your body.
- (2) Maintain good posture, keep your back straight, chest open, and draw your shoulders down and back.
- (3) Walk for 20–40 feet per set. If you are in a smaller space, you can walk in circles or back and forth. Do 2–5 sets. Do not twist your back.

# Beginner Movements

## Forearm, Wrist, and Grip Strength Exercises for the Beginner

### ***Palm-Up and Palm-Down Wrist Curls***

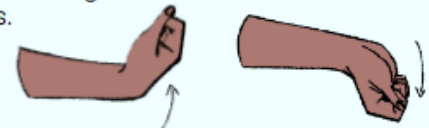
#### **Palm-Up Wrist Curls**

(1) While seated, rest your wrists on your knees or a flat surface (like a table), so that your hand dangles over the edge, giving your wrist free range of motion (ability to move around). Your palms should face up.

(2) With a dumbbell in each hand (or something weighted that you can hold onto, like a water bottle), raise your hands as high as you can, keeping your arms still. Your wrists should not rise up off the surface they are resting on.

(3) After a slight pause, lower your hands to the starting position.

(4) Below images show motion without weights.



#### **Palm-Down Wrist Curls**

(1) Do the same process as above, only with your palms facing down.

(2) Below images show motion without weights.



# Beginner Movements

## Forearm, Wrist, and Grip Strength Exercises for the Beginner

### Squeeze Device



A great variety of grip strengthening devices are available online and at fitness shops. To use, wrap your fingers around the device and simply squeeze. This can be done when relaxing, reading, or watching TV.

In lieu of a grip strength device, you can squeeze your fingers around small bags of corn, rice, or sand.



# Beginner Movements

## Functional Exercises

Functional exercise focuses on strength training that prepares your body for day-to-day activities.

- It can prepare you for the activities associated with warehouse work, such as safely lifting, bending, twisting, and lifting, or even at-home activities like sheep shearing, such as things like controlling the animal for safety, bending, twisting, lifting, using shears, squatting and hauling.
- Most functional fitness contains multi-joint movement patterns that involve your knees, hips, spine, elbows, wrists, and shoulders.

### **Squats**

**(Target Muscles:  
Quadriceps,  
Hamstrings,  
Glutes, and  
Abdominals)**



Sheep shearing requires frequent up and down movement. Squats prepare your body for this.

- (1) Stand with your feet shoulder-width apart.
- (2) Squat down slowly, bending your knees as if you were about to sit into a chair.
- (3) Make sure your back stays straight and your knees do not wobble (cave) in.
- (4) Pause when thighs are parallel to the floor.
- (5) Stand back up, and repeat.
- (6) If you have trouble with this exercise, place a sturdy, non-rolling chair behind you. Perform the exercise squatting slowly down to sit in the chair, before standing back up.

# Beginner Movements

## Functional Exercises for Beginners



### **Half- Kneeling Wood Chop** (Target Muscles:

*Obliques,  
Transverse  
Abdominals,  
Lats, and  
Deltoids)*



### **Starting Position:**

- (1) Begin on your knees.
- (2) Step out with one leg, so that it is a couple of feet out in front of the other. Keep your foot flat on the floor and knee bent at a 90 degree angle.
- (3) Hold a light-to-medium pound dumbbell by the knee that is on the floor. If you do not have a dumbbell, you can substitute other household items, like a bottle of water or a small bag of livestock feed. The key is to keep the weight light.
- (4) Hold onto both ends of your "weight". This is the starting position. (See top image to the left.)

### **Movement:**

- (5) Raise the weight up towards the ceiling, but do this diagonally towards the opposite side of your body.
- (6) As you do this, twist your abs and torso. However, **keep your hips facing forward**. Only your core muscles should be rotating.
- (7) Once the weight is in the "up" position, bring the weight back down to starting position, following the same diagonal path.
- (8) Do 8-12 reps on one side, and then repeat on the other side.

**Please note** that this exercise can also be done from a standing position (See bottom image to the left.)

# Beginner Movements

## Functional Exercises

### **Lunges**

*(Target Muscles:  
Glutes,  
Hamstrings,  
Quadriceps, and  
Calves.)*



(1) Stand in a split stance with the right foot roughly 2 to 3 feet in front of the left foot. Your torso is straight; shoulders are back and down.

(2) Bend the knees and lower your body until the back knee is a few inches from the floor. At the bottom/end of the movement, the front thigh will be parallel to the ground and the back knee will point towards the floor.

(3) Your weight should be evenly distributed between both legs.

(4) Push back up to the starting position. Keep your weight on the heel of the front foot.

# Beginner Movements

## Functional Exercises



(1) Get in a high plank position. This is when you have the toes of your feet and hands on the floor. Your hips and torso are raised off the ground and in a straight line. Your hands should be slightly wider than your shoulders. Make sure your body is in a straight line from head to toe. (Top image on the left.)

(2) Bend your elbows and lower your body down. Go down as far as you can. (Bottom image on the left.)

(3) Straighten your elbows and rise back up to a high plank position.

**Note:** A push-up is not considered a complete push-up, until your chest almost touches the ground. However, most people need to build up muscular strength to do this.

If you cannot do a complete push-up, you can do a modified push-up.

**Type 1 Modification:** The push-up is performed just like a regular push-up, only instead of being up on your feet, **your knees are in contact with the ground.** This reduces the amount of weight on your muscles as you move through the exercise's range of motion.

### Push-Ups

(Target Muscles:

*Pectorals,*

*Anterior*

*Deltoids, and*

*Triceps)*

**Type 2 Modification:** Find a sturdy counter or table that will not move if your body weight is leaned up against it. Make sure it will not move! An object that slides mid-exercise can cause injury.

- Stand several feet away from it, then lean forward until you can place your hands onto the edge of the counter or table.
- You should now be leaning onto the counter or table with your body weight, with the rest of your body at an angle. Your back, hips, and legs should still be in a straight line.
- Bend your elbows, slowly lowering yourself down until your chest touches the edge of the counter or table.
- Raise your body back up.



A scenic view of a desert landscape. In the foreground, several tall, columnar saguaro cacti stand prominently. The middle ground shows a range of rugged, rocky mountains with sparse vegetation. The sky is a clear, bright blue with scattered, soft white clouds. The overall lighting suggests a bright, sunny day.

# Takeaways

# Takeaways

- Movement is important for all ages.
- Movement can help to not just prevent chronic disease, but it can also help increase your mood and overall well-being.
- A lack of movement is very common in today's society, with the reliance upon technology, desk jobs, and increased screen times. In fact, less than 1 out of 5 people in the U.S. manage to move as much as the recommended guidelines suggest.
- Fear not! There are ways to sneak movement into your daily – and often sedentary – routine, that *won't* take hours and hours of your day.
- Movement (and exercise) can take a variety of forms, and does not look the same for everyone.
- Before beginning any new movement program, make sure to check with your healthcare provider, and take the PAR-Q Assessment.



A scenic view of a desert landscape. In the foreground, several tall, columnar saguaro cacti stand prominently. The middle ground shows a range of rugged, rocky mountains with sparse vegetation. The sky is a clear, pale blue with scattered, soft white clouds. The overall lighting suggests a bright, sunny day.

# Resources



# Resources

- @aecfkidscount. (2020). *KIDS COUNT Data Center from the Annie E. Casey Foundation*. [online] Available at: <https://datacenter.kidscount.org/data/tables/6726-children-below-200-poverty-by-race-and-ethnicity#detailed/1/any/false/2048> [Accessed 28 Aug. 2024].
- Alzheimer's Society. (2024). *Physical activity and the risk of dementia*. [online] Available at: <https://www.alzheimers.org.uk/about-dementia/managing-the-risk-of-dementia/reduce-your-risk-of-dementia/physical-activity#:~:text=Aside%20from%20dementia%2C%20many%20studies> [Accessed 28 Aug. 2024].
- American Diabetes Association (n.d.). *Blood Glucose & Exercise | ADA*. [online] diabetes.org. Available at: <https://diabetes.org/health-wellness/fitness/blood-glucose-and-exercise#:~:text=Physical%20activity%20can%20lower%20your>.
- Barb D, Donahoo WT, Considine RV. Obesity: risk factors and medical management. In: Robertson RP, ed. *DeGroot's Endocrinology*. 8th ed. Philadelphia, PA: Elsevier; 2023:chap 20.
- Daniels SR, Hassink SG; Committee on Nutrition. The role of the pediatrician in primary prevention of obesity. *Pediatrics*. 2015;136(1):e275-e292. PMID: 26122812 [pubmed.ncbi.nlm.nih.gov/26122812/](https://pubmed.ncbi.nlm.nih.gov/26122812/).
- Gahagan S. Overweight and obesity. In: Kliegman RM, St. Geme JW, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*. 21st ed. Philadelphia, PA: Elsevier; 2020:chap 60.
- Harvard Health Publishing (2023). *Exercise can boost your memory and thinking skills - Harvard Health*. [online] Harvard Health. Available at: <https://www.health.harvard.edu/mind-and-mood/exercise-can-boost-your-memory-and-thinking-skills>.
- Iso-Markku, P., Aaltonen, S., Kujala, U.M., Halme, H.-L., Phipps, D., Knittle, K., Eero Vuoksima and Waller, K. (2024). Physical Activity and Cognitive Decline Among Older Adults. *JAMA network open*, [online] 7(2), pp.e2354285–e2354285. doi:<https://doi.org/10.1001/jamanetworkopen.2023.54285>.



# Resources

- Johnson CR, Kumar S. Obesity in children. In: Kellerman RD, Rakel DP, Heidelbaugh JJ, Lee EM, eds. *Conn's Current Therapy 2023*. Philadelphia, PA: Elsevier; 2023:1347-1354.
- Lovell, Alison: NREMT, WEMT, NASM-CPT
- Mount Sinai Health System. (2023). *Obesity in children*. [online] Available at: <https://www.mountsinai.org/health-library/diseases-conditions/obesity-in-children#:~:text=When%20children%20eat%20more%20food> [Accessed 28 Aug. 2024].
- Publishing, H.H. (2021). *Burning calories without exercise*. [online] Harvard Health. Available at: <https://www.health.harvard.edu/staying-healthy/burning-calories-without-exercise>.
- Sallis, R., Young, D.R., Tartof, S.Y., Sallis, J.F., Sall, J., Li, Q., Smith, G.N. and Cohen, D.A. (2021). Physical Inactivity Is Associated with a Higher Risk for Severe COVID-19 outcomes: a Study in 48 440 Adult Patients. *British Journal of Sports Medicine*, [online] 55(19), pp.1099–1105. doi:<https://doi.org/10.1136/bjsports-2021-104080>.
- Sutton, Brian. NASM Essentials of Personal Fitness, 7th Edition, 2022; Barkin SL, et al. *American Journal of Preventative medicine*. 2016: 10.1016/j.ampere.2016.11.017.
- US Preventive Services Task Force, Grossman DC, et al. Screening for obesity in children and adolescents: US Preventive Services Task Force recommendation statement. *JAMA*. 2017;317(23):2417-2426. PMID: 28632874 [pubmed.ncbi.nlm.nih.gov/28632874/](https://pubmed.ncbi.nlm.nih.gov/28632874/).
- Weghuber D, Barrett T, Barrientos-Pérez M, et al. Once-weekly Semaglutide in adolescents with obesity. *N Engl J Med*. 2022;387(24):2245-2257. PMID: 36322838 [pubmed.ncbi.nlm.nih.gov/36322838/](https://pubmed.ncbi.nlm.nih.gov/36322838/).

**Thank you for attending!**

