


Brain and Balance The Dual Tasking Method

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ABOUT

- **International Presenter and Leading Trailblazer in Fitness for Active Aging.**
- **Specializes in:**
 - Program Design & Implementation
 - Cognitive Brain Movement
 - Class Implementation for Parkinson's and Alzheimer's Clients
 - Low Impact Movement
 - Chronic Fitness Solutions
- Fitness Supervisor in Senior Living Homes
- CEO of FUNctionally EVOLVED

Award-Winning Fitness Professional:

- 2026 IDEA Instructor of The Year Nomaniee
 - 2025 Coach 360 Fitness Visionary Nominee
 - 2024 IDEA Emerging Trailblazer of the Year
 - 2024 Coach 360 Top 24 Coach of the Year
 - 2020 LA Fit Expo Wow The Crowd Winner
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PURPOSE

The purpose of this workshop is to help you, as fitness professionals, expand your impact beyond muscles and start training the most powerful system in the human body, "THE BRAIN!"

- **Improve how your clients think while they move**
- **Build confidence through cognitive success**
- **Create programs that reflect real-life demands, not just gym exercises**



LETS TALK ABOUT REALITY



Not a fitness question... A life question!

Discussion Prompt:

“What is one moment where you noticed your client struggling mentally during movement?”

Examples:

Forgetting exercise sequences

Losing balance when distracted

Getting confused during transitions

Slowing down when asked to think and move



LETS TALK ABOUT REALITY



What you just shared... that's cognitive fitness.

Not reps. Not sets. Not heart rate.

That's the brain trying to keep up with life.

Your clients don't live in perfect reps. They live in unpredictable environments where they must:

- Think
- React
- Adjust
- Move safely

And if we're not training that,
we're not fully preparing them for life.



LETS TALK ABOUT REALITY



Activity

Stand up
+ March in place.

Now Spell Your First and last Name

THAT'S THE BRAIN BEING CHALLENGED.



LETS TALK ABOUT REALITY



Activity: Brain Wake Up

THE RULES

IF I SAY THE NAME OF AN ANIMAL, YOU CLAP ONCE.

IF I SAY THE NAME OF A FRUIT, YOU PERFORM ONE SQUAT.

DOG

APPLE

ELEPHANT

BANANA

LION

PEAR

CAR

STRAWBERRY

GIRAFFE

CHAIR

MANGO

HORSE

THAT'S THE BRAIN BEING CHALLENGED.

THAT'S EXACTLY THE POINT.

YOUR BRAIN HAD TO DO MULTIPLE THINGS AT ONCE.



WORKSHOP OBJECTIVES

1. Understand Cognitive Fitness
2. Apply Dual-Task Training
3. Design Brain-Based Workouts
4. Coach Cognitive Confidence
5. Translate to Real Life

SO WE'RE NOT JUST LEARNING EXERCISES TODAY;
WE'RE UPGRADING HOW WE COACH.



WHAT IS REAL FITNESS?

- For too long, we've measured fitness by how someone performs in a controlled environment:
 - Perfect squat form
 - Controlled reps
- Predictable movement



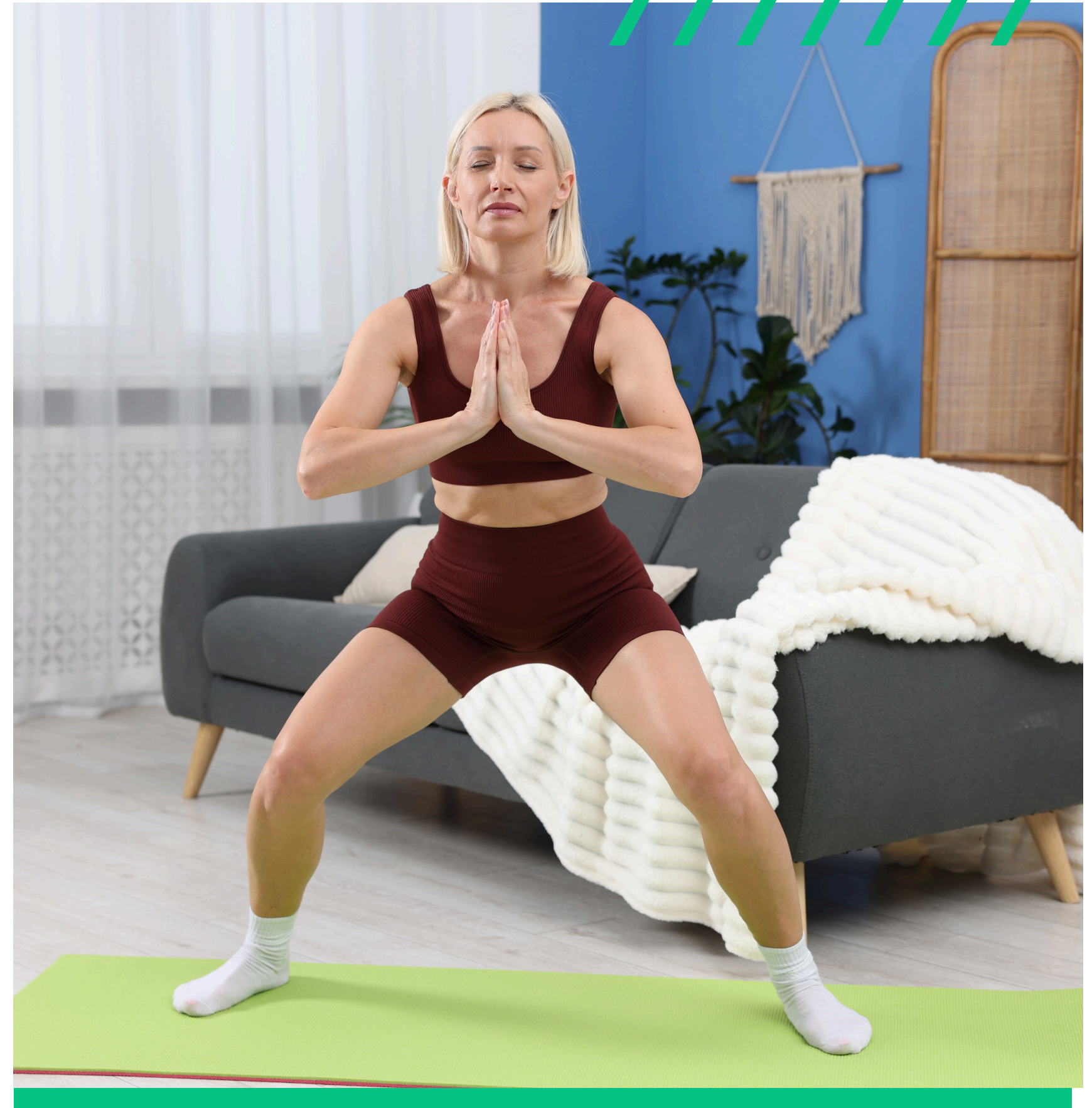
WHAT IS REAL FITNESS?

Life doesn't happen in perfect reps.

- Life happens in unpredictability.

Real fitness is not about how well someone moves when everything is controlled....

- It's about how well they move when things DON'T go as planned.



REAL FITNESS IS THE ABILITY TO FUNCTION UNDER PRESSURE

EXPANDED LIFE SCENARIOS

- CROSSING A BUSY STREET WHILE CARS ARE COMING
- AVOIDING SOMEONE WALKING TOWARD THEM WHILE TALKING
- CATCHING THEMSELVES WHEN THEY TRIP ON UNEVEN GROUND
- TURNING QUICKLY WHEN SOMEONE CALLS THEIR NAME
- WALKING THROUGH A CROWDED RESTAURANT WHILE CARRYING A PLATE
- STEPPING OFF A CURB WHILE LOOKING AT TRAFFIC
- REACHING FOR SOMETHING WHILE BALANCING
- GETTING UP QUICKLY WHEN THE PHONE RINGS



In every one of those moments...

- **Their brain is making decisions in real time.**
- **Their body has to react instantly.**
- **If that system isn't trained, that's where accidents happen.**

INTERACTIVE ACTIVITY

ACTIVITY 1: DIRECTION CHAOS

- START WALKING AROUND THE ROOM
 - KEEP YOUR HEAD UP, STAY AWARE
 - RULES:
 - EVERY TIME I CLAP:
 - YOU MUST CHANGE DIRECTION IMMEDIATELY.
- CHALLENGE:**
- CLAP ONCE - CHANGE DIRECTION
 - CLAP TWICE - STOP AND 1 LEG BALANCE FOR 3 SEC.
 - CLAP THREE - 4 JUMPING JACKS



TEACHING POINT

YOUR BRAIN HAD TO...

- PROCESS SOUND
- MAKE A DECISION
- CHANGE DIRECTION
- CONTROL YOUR BODY

ALL IN SECONDS.



ACTIVITY 2: DISTRACTION WALKING”

- **STAY WALKING**
 - **GOING TO ASK YOU QUESTIONS WHILE YOU MOVE.**
- **WHAT DID YOU EAT FOR BREAKFAST?**
- **NAME 20 ANIMALS.**
- **NAME FOODS YOU DON'T LIKE TO EAT?**



What happened to your movement?

- **Slower**
- **Less stable**
- **Less aware**

TEACHING POINT

- **When the brain is distracted**
 - **Movement quality drops.**
 - **This is EXACTLY when falls happen in real life.**

If your workouts don't include:

- **Decision making**
- **Reaction**
- **Unpredictability**

Then your clients are not fully prepared for life outside your class.



BRAIN SCIENCE SIMPLIFIED

- Your brain controls EVERYTHING.
- Every step you take... every reach... every balance correction...
- All starts in the brain.
 - And when the brain slows down...
 - Everything slows down.



The Brain has 3 main jobs during movement:

1. Perceive → What's happening around me?
2. Process → What should I do?
3. Produce → Execute the movement

EXPANDED REAL-LIFE ISSUE EXAMPLES

Example 1: Reaction Delay

Client trips on the carpet.
Fast brain = quick recovery
Slow brain = fall

Example 2: Coordination Breakdown

Client is walking and turns their head.

- Loses rhythm
- Steps get uneven

Example 3: Hesitation

Client steps off a curb.

- Pauses
- Misjudges
- Loses confidence

Example 4: Overload Moment

Client in a group class:

- Music playing
- Instructor cueing
- Movement changing

Brain overload → freezes or stops

Example 5: Conversation Interference

Client walking and talking:

- Slows down
- Stops walking

(You'll see this ALL the time in older adults)

**THIS IS NOT A STRENGTH ISSUE
THIS IS PROCESSING SPEED.**

ACTIVITY 1: Delay = Danger

- Walk around the room.

Rules:

- When I say, Green = Clap once and balance on one leg.
- Red = Clap twice and give me 1 squat
- Yellow = Clap 3 times and give me 2 lunges



Coaching Breakdown

What happened?

- Some reacted late
- Some lost balance
- Some guessed wrong

That delay is the difference between catching yourself... or falling.

SIMPLIFY THE SCIENCE

You don't need to be a neuroscientist to train the brain.

You just need to create moments where your client has to:

- Think
- Decide
- React

Strength helps you move
But your brain determines:

- How FAST you react.
- How SAFE you move.
- How CONFIDENT you feel.



COACHING TAKEAWAYS

If your client...

- Moves well until distracted
- Slows down when thinking
 - Freezes during changes

You are looking at a brain training opportunity.

EXTRA EXAMPLES FOR TRAINERS

Use these in classes:

- March + name colors
- Squat + solve math
- Step + spell words
- Balance + recall list
- Walk + answer questions



Neuroplasticity

- What's fascinating is that the brain is constantly changing.

This process is called **neuroplasticity**.

Neuroplasticity means the brain has the ability to:

- Reorganize itself
- Create new connections
- Strengthen existing neural pathways



Break It Down Simply

- Every time you learn something new
 - Your brain creates new connections.
- Every time you repeat something
 - Those connections get stronger.
- Every time you stop using something
 - Those connections weaken.

Neuroplasticity

Neuroplasticity improves:

- Balance
- Coordination
- Reaction time
- Memory
- Confidence



This is especially important for older adults because neuroplasticity helps:

- Maintain independence
- Reduce fall risk
- Improve quality of life

EXAMPLES

1) Learning a New Exercise

First time:

- Awkward
 - Slow
- Confusing

After practice:

- Smooth
 - Faster
 - Confident
-
- That's neuroplasticity



2) Dance or Choreography

At first:

- Can't remember steps

Later:

- Moves automatically
- Brain built the pathway

EXAMPLES

3) Driving a Car

First time:

- Overwhelming

Now:

- Automatic
- Strong neural pathways

4) Aging Clients

Client says:

“I used to be able to do this...”

- Brain pathways weakened

BUT...

They can rebuild them



Repeating the same thing over and over

- Builds efficiency

BUT

- Changing the pattern builds the brain.

PRACTICAL COACHING APPLICATION

If you want to train neuroplasticity,

You need to:

- Change patterns
 - Add variety
- Introduce novelty
- Slightly challenge coordination

Instead of:

March in place

Do:

- March + direction change
 - March + memory
- March + reaction cue



Instead of:

Basic squat

Do:

- Squat + reach
- Squat + turn
- Squat + respond to cue

Neuroplasticity CLASS ACTIVITY – BUILD THE BRAIN

Each group is going to create a short cognitive fitness drill.

You MUST include 3 things:

1. One movement
2. One pattern change (neuroplasticity trigger)
3. One added challenge (thinking or reaction)

M + P + B = Brain Training

- M = Movement
- P = Pattern change
- B = Brain challenge

Example 1

Movement: Step touch

Pattern Change: Forward → Side
→ Back

Challenge: Name animals

Example 2

Movement: Squat + Reach

Pattern Change: Add a side step after the
squat

Brain Challenge: Alphabet (A–Z)

COGNITIVE LOAD (WHAT IT IS)

Cognitive load is how much your brain is working at one time.

- The brain has limited capacity
- More tasks = more demand
- The right challenge = growth

Your brain gets stronger the same way muscles do, through the right amount of challenge.



HOW COGNITIVE LOAD PERTAINS TO FITNESS

Simple movement = low brain activity

- Challenged movement = high brain activity
- More engagement = better results

Real-Life Fitness Examples

- Marching = low load
- March + counting = moderate load
- March + counting backwards + turning = high load



If your class is too easy mentally, The brain checks out.

DUAL TASK INTERFERENCE (WHAT IT IS)

Dual-task interference happens when the brain tries to do two things at once

And both get worse.

- The brain splits attention
 - Performance drops
- Movement becomes less stable

The brain can multitask
But not efficiently.



HOW DUAL TASK INTERFERENCE PERTAINS TO FITNESS

This is where fitness becomes real life.

Real-Life Examples

- Walking + talking → slower walking
- Turning + thinking → loss of balance
- Group class + cues → overwhelm

This is when falls happen, when the brain is distracted.



HOW DUAL TASK INTERFERENCE WORKS

When two tasks compete:

- The brain prioritizes one
- The other suffers

What Happens:

- Slower movement
- Delayed reaction
- Loss of coordination
- Increased mistakes



Example

Walk normally → smooth

Walk + name animals → slower

**That breakdown, That's where we need to
train**

CATEGORY SWITCH CHAOS

Activity 1: Rules

- When you step RIGHT → say a fruit
- When you step LEFT → say a sport

Example:

Right: Apple

Left: Soccer

Activity 2: Progression

Right = animal

Left = city

When I clap → SWITCH
categories immediately.

MEMORY TRAFFIC FLOW

Activity 1:

Dog= Squats

Cat= Lunges

Frog = Jumping Jacks

Activity 2:

Rabbit = High Knees

Lizard = Calf raises

Bird = Hip Circles

OPPOSITE BODY BRAIN GAME

- **UP → you squat**
- **DOWN → you reach up**
 - **LEFT → step right**
 - **RIGHT → step left**

WHY THIS MATTERS FOR TRAINERS

If your clients only train in controlled environments,
they're not ready for real life.

- Life requires thinking + moving
 - Distractions are constant
- Reaction matters more than strength

Simple Programming Model

Movement only

Add simple task

Add cognitive challenge

Add reaction



Walk

→ Walk + talk

→ Walk + memory

→ Walk + react

BUILD YOUR OWN BRAIN GAME

Create a fun dual-task activity using this formula:

Movement + Command + Brain + Twist

Movement

Walk • March • Step • Squat

Command

Stop • Go • Turn • Switch

Brain Challenge

Name • Count • Remember • Opposites

Twist

Change rules • Add speed • Add memory

Examples:

1. Walk + Stop/Go + Name animals + Switch rules
2. Step touch + Left/Right + Say opposite colors +

Speed up

3. Squat + Numbers + Count backwards + Add
pause hold

HOW TO PROGRAM THE 4 LEVEL SYSTEM

Structure:

Start Simple (Level 1)

Layer In (Level 2)

Challenge (Level 3)

Train Real Life (Level 4)

Build → Challenge → Peak → Recover

Reset (Back to Level 1–2)



MICRO PROGRESSION (WITHIN ONE EXERCISE)

Example: Marching

Level 1

March

Level 2

March + count

Level 3

March + count backwards

Level 4

March + react to cues



**You don't need new exercises,
You just need better layering.**

PROGRAMMING FOR DIFFERENT POPULATIONS

Active Agers

- More Level 1–2
- Gradual Level 3
- Short Level 4 bursts

General Population

- Balanced Levels 2–4
- More variety

Cognitive / Neuro Clients

- Repetition + rhythm
 - Clear cues
- Slower progression

WHY COMBINE STRENGTH + BRAIN TRAINING?

Strength training builds the body,
But the brain controls how that strength is used.

Key Points

- Muscles create force
- The brain controls coordination
- Movement quality = brain + body



**Strong muscles without brain control,
Still leads to poor movement.**

Equipment	Exercise	Cognitive Add-On	Brain Focus	Progression Option
Dumbbell	Goblet Squat	Count backwards by 3	Focus + working memory	Add pause + react to cue
Dumbbell	Shoulder Press	Name animals or foods	Attention + recall	Switch categories mid-set
Dumbbell	Reverse Lunge	Say opposites (hot/cold)	Decision making	Add direction change
Kettlebell	Deadlift	Count by 2s or 5s	Rhythm + sequencing	Change counting pattern
Kettlebell	Swing	Word association (category)	Processing speed	Increase tempo
Kettlebell	Carry	Answer questions	Dual-tasking + awareness	Add direction cues
Resistance Band	Band Row	Name categories	Memory + focus	Add speed or tempo
Resistance Band	Squat	Count backwards	Cognitive load	Add pause hold
Resistance Band	Lateral Walk	Recall list	Memory + coordination	Add direction change

BUILD YOUR OWN BRAIN-BASED STRENGTH WORKOUT

Create a strength exercise that trains the body AND the brain

Exercise + Brain + Focus + Progression

Build It

1. Exercise + Equipment

Dumbbell • Kettlebell • Band

Squat • Press • Row • Lunge • Carry

2. Cognitive Add-On

Count • Name • Recall • Opposites • Questions

3. Brain Focus

Memory • Attention • Reaction • Coordination

4. Progression

Add speed • Add complexity • Add reaction • Change pattern

Example

Goblet Squat + Count backwards

Focus: Memory + attention

Progression: Add pause + react to cue

RHYTHMIC FUNCTIONAL MOVEMENT

- Functional movement becomes more powerful when we add rhythm.
- Rhythm organizes how the body and brain work together.

Key Points

- Functional patterns train real life
- Rhythm improves timing and coordination
 - Together = smarter movement



Rhythm turns movement into a system the brain understands.

FUNCTIONAL PATTERNS + RHYTHM

Let's take movements your clients already do..."

And bring them to life with rhythm.

Examples

- Squat → down for 2, up for 2
- Forward Lunge → step, lower, return
- Side Push (lateral step) → push side to side
- V-Step → forward wide, back together

These are real-life movements:

Sit, step, reach, change direction



HOW RHYTHM IMPROVES THESE PATTERN

- When you add rhythm, Movement becomes smoother and more controlled

What Happens

- Better coordination
- Consistent timing
- Reduced hesitation
- Improved balance

Example

Without rhythm:
Lunge feels unstable

With rhythm:
Lunge becomes controlled and predictable



RHYTHMIC FUNCTIONAL MOVEMENT PATTERNS

FUNCTIONAL MOVEMENT TYPES

- Squat
- Hinge
- Lunge
- Push
- Pull
- Rotation
- Cross-Body



FUNCTIONAL MOVEMENT TYPES

These are the patterns we use every day:

- Squat → Sit / stand
- Lunge → Walk / climb stairs
- Lateral (Side Step) → Change direction / avoid obstacles
- Cross-Body (Rotation/Coordination) → Walking, reaching, balance

CREATE YOUR OWN MOVEMENT PATTERN

Build a rhythmic movement pattern using 4 functional movements

Rules

- **Choose 4 functional movements**

Squat • Hinge • Lunge • Push • Pull • Rotation • Cross-Body

- Perform each movement for a count of 4
- Keep it continuous and rhythmic

Example Pattern

- 4 Lunges (R + L = 1 rep)
 - 4 Squats
- 4 Lateral Reaches (R+L= 1 rep)
- 4 Cross-Body (R+ L = 1 rep)

Sample Mind, Motion & Strength Class

Cardio

Tabata - Squats (name animals), **4 Side shuffles** (name veggies and fruits), **Jumping jacks** (name things that starts with the letter A or C), **Quick feet** (count by 2's)

Movement Pattern 1

Out-Out-In-In • Grapevine • Scoop • Side Push

Strength

Tabata- Bicep Curl + Front raise (rhyme words), **Squat press** (3, 4, 5 letter words), **Row + Deadlift** (solve math problems), **Lunge + Lateral raise** (items you will find at a grocery store)

Movement Pattern 2

V-Step • Back Push • Opposite Arm + Leg • Cha-Cha

Balance

Tabata - 6 Tandem Walk (count backwards from 100 by 2's) **single Leg R + reach** (sing a song) **Single Leg L + Chest openers** (create a story) **Side jump**
Balance (name things you will accomplish back home)

Today, you didn't just learn new exercises:

- **You learned how to train the brain through movement.**
- **You now understand how to take functional fitness and turn it into cognitive fitness.**
- **Most importantly, have the tools to help your clients move better, think faster, and live more confidently.**



**THANK
YOU**

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