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Waves on Fire: Active Agers



Aquatic Mindful Movement
Specialist



Connie Martin, M.A.
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Waves on Fire: Active Agers

- **Baby Boomers Unite!**
- **Heat up** your water workouts and burn calories, sculpt and strengthen your entire body in a great movement environment-the pool.
- **Stoke the fire** of your internal furnace by using ability-based, low-impact and multi-joint movements.
- **Learn to stabilize** your core while benefiting from improved stability and mobility.

Introduction

- **Welcome!**
- **Gratitude** to You, Mentors, Members, SCW
- **Theme** today is **FIRING UP THE CORE!**
- **Purpose** of your workout today is to burn fat using cardio, strength & flexibility. To turn your body into a fat-burning machine!
- **Focus** today is Synergy. We will achieve this by heating up the pelvic floor using stability and mobility of the body in each exercise.
- **Pick** a number 1-10, how hard you want to work today. Your **Rate of Perceived Exertion**-scale of 1-10, choose the intensity level that's just right for you.
- **Music** today is by Power Music, PowerMusic1, Click Mix
- –Noodles.



Congratulations!!
Connie Martin
FITNESS IDOL
Winner
SCW Fitness Education
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2016

SOMETIMES
THE SMALLEST STEP
IN THE RIGHT DIRECTION
ENDS UP BEING THE BIGGEST
STEP OF YOUR LIFE.
TIP TOE IF YOU MUST,
BUT TAKE
THE STEP.



Session Agenda

What job does the core have while moving?

The 4 S's of the WHOLE BODY

- ❖ STABILIZE
- ❖ SYNERGIZE
- ❖ SCULPT
- ❖ STRENGTHEN

What is Synergy? How do we create burn?

How does synergistic interaction affect the body to fire up and burn?

Then....KEEP burning long after the work out? -- The EPOC Theory

- ❖ Ability-based moves in the water
- ❖ Low-impact movements, Multi-joint movements, using Stability and Mobility
- ❖ Take-Away: Email me, then I'll send you Ready-to-Use Choreography for your



Session Agenda



- ❖ How does movement with resistance in the water stoke your internal fire?
- ❖ How do we move through the anatomical planes?
- ❖ We are mindful of Active Ager needs for regressions, or progressions of movement in the pool environment.
- ❖ Joint issues to be aware of to offer regressions to increase success of our participants in their aqua movement experience.



What is Synergy?

Definition of Synergy?

- The interaction, or cooperation of two or more organizations, substances, or other agents to produce a combined effect greater effect than the sum of their separate effects. -- synergistic. *adj.*
 - *The English Oxford Living Dictionaries 2016. Oxford University Press.*
- The working together of two things (muscles, food or drugs for example) to produce an effect greater than the sum of their individual effects.
 - *Based on WordNet 3.0 Farlex clipart collection. 2003-2012, Princeton University, Farlex Inc.*
- e.g. synergist- Muscle that combines with another and aids in its action. (Core with Limbs)
 - *AFAA- Fitness: Theory & Practice, 2002.*



How Does Synergistic Interaction Affect the Body to Burn?

HOW ARE WE MOVING?

Research says that using synergistic energy to fire up the body- warming muscles, which increases greater range of motion movement, i.e, e.g., big stepping, knees up jogging, grounded neutral spine, increased range of motion without fear of falling...
that improves flexibility.

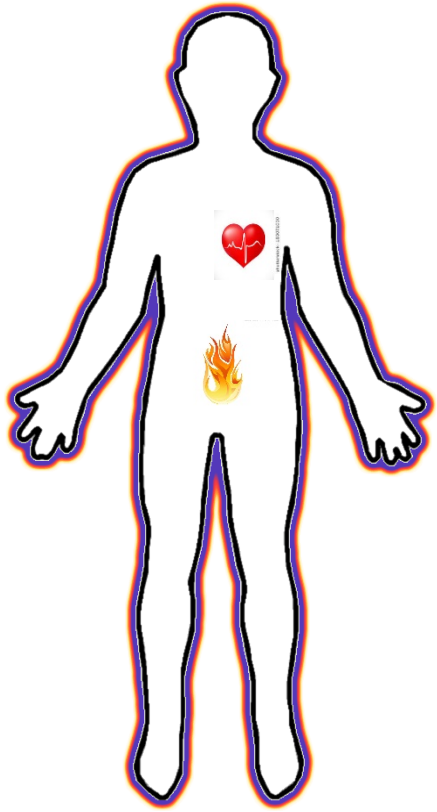
Constant movement causes the body to burn calories, build muscle, improve strength, balance, and help to lose or maintain weight.



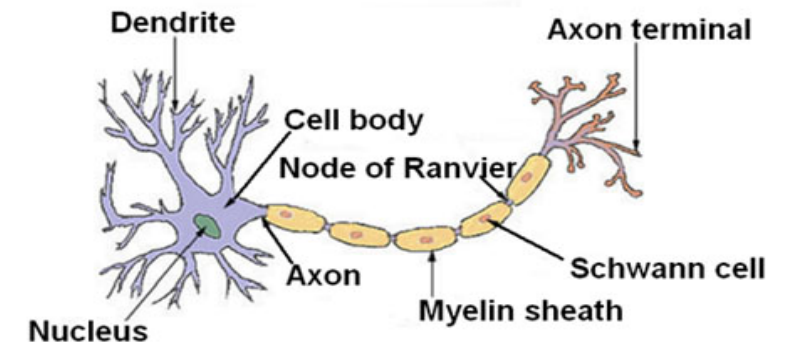
--American Council on Science and Health-2016

How Do I Create that Burn?

- Constant movement warms the body causing muscles to heat up, thus causing body temperature to rise creating caloric burn.
- Certain scientifically proven food combinations cause synergy by firing up your metabolism, e.g., i.e., cayenne & chicken, bell peppers and eggs, oatmeal & blueberries, honeydew and red grapes, pistachios & almonds, yogurt & cinnamon, spinach & avocado oil, raw honey & cinnamon...
- Neurons firing causing synergistic reactions in the muscles to fast twitch, thus heat up and call upon the muscles to react, fire up, and perform the movement called upon.



Structure of a Typical Neuron



EPOC THEORY: Excess Post-Exercise Oxygen Consumption



- Similar to how a car's engine remains warm after being turned off, once a workout is over and you're back in your daily routine, your body's metabolism can continue to burn more calories than when at complete rest. This physiological effect is called excess post-exercise oxygen consumption, or EPOC. Also known as oxygen debt, EPOC is the amount of oxygen required to restore your body to its normal, resting level of metabolic function (called homeostasis). It also explains how your body can continue to burn calories long after you've finished your workout.
- Your metabolism is how your body converts the nutrients you consume in your diet to adenosine triphosphate (ATP), the fuel your body uses for muscular activity. ATP is produced either with oxygen using the aerobic pathways or without oxygen relying on the anaerobic pathways. When you first start to exercise, your body uses the anaerobic energy pathways and stored ATP to fuel that activity. Once a steady-state of oxygen consumption is achieved, the aerobic energy pathways are able to provide most of the ATP needed for the workout. Exercise that places a greater demand on the anaerobic energy pathways during the workout can increase the need for oxygen after the workout, thereby enhancing the EPOC effect.

Here are some things you should know about EPOC and how it can help you achieve optimal levels of calorie burning from your workouts.

1. DURING THE IMMEDIATE POST-EXERCISE RECOVERY PERIOD, OXYGEN IS USED FOR THE FOLLOWING FUNCTIONS:

- * Production of ATP to replace the ATP used during the workout**
- * Re-synthesis of muscle glycogen from lactate**
- * Restore body temperature to resting levels**
- * Restore oxygen levels in venous blood, skeletal muscle blood and myoglobin**
- * Work with protein for the repair of muscle tissue damaged during the workout**



EPOC THEORY



2. EXERCISE THAT CONSUMES MORE OXYGEN BURNS MORE CALORIES.

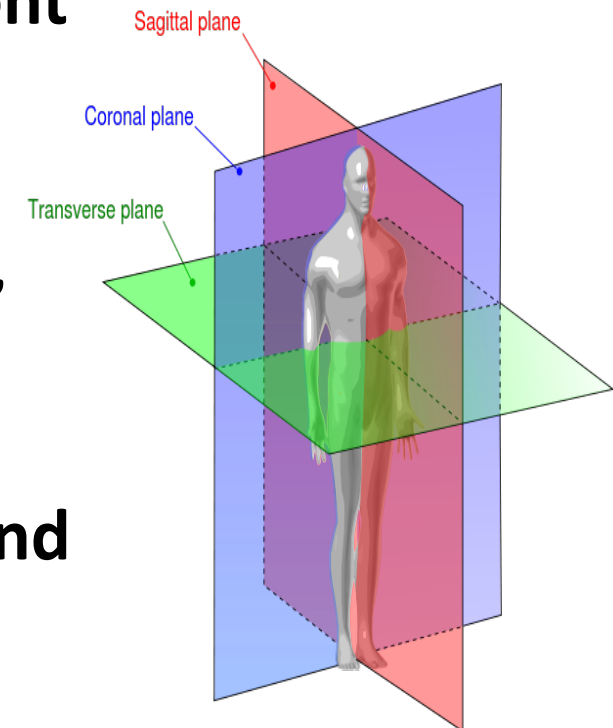
Therefore, increasing the amount of oxygen consumed both during and after a workout, can increase the amount of calories the body expends approximately 5 calories of energy (a calorie is the amount of energy required to heat 1 liter of water 1 degree centigrade) to consume 1 liter of oxygen. Thus, calories burned.

Strength training with compound, multi-joint resistance exercises, or doing a circuit that alternates between upper- and lower-body movements places a greater demand on the involved muscles for ATP from the anaerobic pathways.

Movement in the Anatomical Planes

The human body can be divided into three imaginary planes of reference, each perpendicular to the other. Knowing how the body moves through planes will help to fire up the body.

- The Sagittal plane passes through the body from the front to the back, dividing it into a right half and left half.
- The Frontal/Coronal plane is vertical to the median line, that divides the body into anterior and posterior parts.
- The transverse plane that divides the body into upper and lower halves.

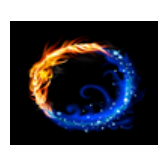


Movement Stokes Your Internal Fire



Ability-based moves- You do YOU!

- According to what feels good, yet challenging to your body—listen to signals of limitations while moving through the planes.
- Low Impact- softer knees, neutral spine, walking/jogging heel-toe in the pool.
- Stabilize your core- pull your belly button back toward your spine more consciously.
- Mobility using Multi-Joint Movements- e.g, i.e, peanut bag, or beat the drum with side leg isometric hold- to dorsiflex heel swings.
- Keep in mind, active aging members are careful of joints, and may be dealing with arthritis, disease, or bone and joint issues.



Safely Empower Participants to Keep Moving!

- Research says nearly 700,000 Americans have chronic joint pain, or hip or knee joint replacement surgery every year. And that number is expected to rise dramatically in the coming decades as the nation's Baby Boomers reach retirement age.
- Over 50% of those over 50 years old are diagnosed with osteoporosis. Our members seek our support and help in learning how to safely exercise to become stronger.
- Osteoarthritis, which affects about 27 million Americans, is the main reason that so many people “slow down” as they get older. Half of Americans over the age of 65 have been told they have arthritis by their healthcare professional. Women are slightly more likely to get a diagnosis of arthritis than men. But, gout is more common in men, with an estimated six million people having experienced an attack of gout, a type of arthritis causing achy joint and big toes.



The Other Main Types of Chronic Joint Problems Can Occur in Active Aging Populations Are:

- Calcium pyrophosphate dihydrate (CPPD) crystal deposition disease (including pseudogout) occurs in about half of all people between the ages of 80 to 90 years, although many have no symptoms.
- Fibromyalgia is usually first diagnosed in middle age, and affects 3-5% of women and about 0.5% of men. Chances of having fibromyalgia increase as you get older. Tendonitis is an inflammation of the connective tissue that attaches muscles to bones. This condition can occur in anyone but becomes more common in older people as tissues lose their flexibility.
- Rotator cuff problems occur most often in the 55-85 year old age group. The rotator cuff involves the tissues supporting the shoulder joint. About 30% of older people have tears in their rotator cuff muscles and tendons, but many have no symptoms.
- Carpal tunnel syndrome is pressure on a nerve in the wrist and may cause tingling, numbness and pain in the hand. It affects between four and ten million Americans, and older people are at higher risk of suffering from the condition.



GET STRONGER, STAY SAFER!

- **Endurance, or aerobic, and anaerobic activities increase your breathing and heart rate. They help keep you healthy, burn calories, improve fitness, and help carry out everyday tasks.**
- **To strengthen your muscles, you need to lift or push weight. Even very small changes can make a real difference. Stronger muscles can make it easier to get up from a chair, carry groceries, open jars, work in the garden, and even play with your grandchildren.**
- **According to research, each year, more than 2 million older Americans go to the emergency room because of fall-related injuries.**

Balance exercises are one way to help prevent falling.



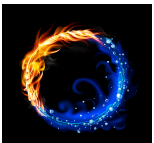
Waves on Fire: Active Agers- Mindful Movement Protects Our Bodies

- **Remember the 4 S's and how we apply them to get strong.**
stabilize, synergize, sculpt, strengthen
- Awareness of how our bodies are moving through the water with proper form, posture, and full range of motion with a neutral spine...so we use:
- **Regressions:**
 - Shorter levers
 - Slower tempo at your own pace
 - Less intensity



Active Agers Movement in the Water

- **Progressions: Options**
- Power Moves
- Plyometric Moves
- Longer Levers
- Higher Intensity
- Faster than the beat movements



Noodle applications –Noodle Fireworks! Track 4

Deep Core Work....Muscle engagement vs buoyancy.

- 1. Smash the Grapes! - Standing in the pool on left foot, place the noodle under the right foot, then raising knee to 90 degrees in alignment with your hip, with noodle centered under foot. Arms extended in front. Push noodle to tap floor in various speeds and rhythms, and intensity that is just right for you.**
- 2. Start noodle at 90 degrees. Swing noodle in adduction to cross midline, crossing legs to tap noodle outside left pinky toe, squeezing inner thighs and return.**
- 3. Start noodle 90 degrees, swing noodle to outside medial while pushing both arms in opposite direction, then return to start using adduction of leg.**

Switch to other side after 1, 1 & 2, or after completing all 3 in 16 reps each.

Muscles engaged during Medial lateral external rotation: all core = rectus abdominis, transverse abdominis, obliquus internus, obliquus externus, transversus abdominis, erector spinae, latissimus dorsi, gluteus maximus, adductor magnus, biceps femoris - hamstrings, gastrocnemius, soleus, plantar.

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Noodle Fireworks! For Track 5

- 1. Start with Noodle behind your back- seated neutral position, raise your legs straight and together-both legs even with your hip bones as if sitting on a table top. Kick legs in 3 count, two small kicks and one wide open so that top foot's toe comes to surface, or near surface, and lower leg presses toward the bottom of the pool. The rhythm is quick, quick, open.**
- 2. Noodle front, or back- Seated as if in a chair-holding knees squeezing together, swing both feet side to side *like a clapper inside of a bell*.**
- 3. Noodle in Front- Seated chair: Double click heels together, then open.**
- 4. Noodle in Front- Seated chair Mermaid Kicks, flipping both feet forward and heels back, then turn 360 circle right, then left.**



Summary

- **Synergy:** A.)The working together of two things (muscles, food or drugs for example) to produce an effect greater than the sum of their individual effects. B.)Two Muscles working together (i.e., core engagement with fire fingers) to create a burn of energy that is greater than working the two muscles independently.
- **Creating that burn – Mindful Movement** stokes your internal fire to burn calories.
- **Our benefit?** Stability and mobility-strengthening the core and the whole body using full range of movement which can improve cardio, strength, and flexibility in your daily life so that you can become a champion of living.
- **EPOC Theory-** your body will fire up, then keep burning calories and fat up to 48hrs. Post-exercise calling upon anaerobic and aerobic ATP in your body.
- **The 4 S's of the Whole Body:** Stabilize, Synergize, Sculpt, Strengthen.
- **Take-Away:** Ready to use Choreography, just print, laminate, and use at your pool!



Waves on Fire: Active Agers Choreography

Track 1- "Relight My Fire

Jogs-Water Tempo

Run x 7, knee lift on 8, run x7, knee lift on 8 x2

Same run, to the side right/left

Kicks X8 low, to Kick x8 high, then reduce to 4x

Jacks x8.....traveling f/b, s/s, 4 corner turns

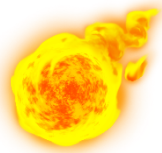
Double Jacks with 1 Tuck Jumps, x4

Neutral tucks x8

Neutral Twists traveling x8 R/L



Track 2- “Fireball”



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Knee Jogs x 16 land tempo

Knee Jogs with arm scoops-water tempo

Side Steps x2 with one reaching Arm pulls across chest R/L

Side Steps x2 with Triceps arm pulls (pull curtain back) R/L

Baseball swings x8 with “fire fingers” on last 4 counts

Repeat #3, #4, & 5.

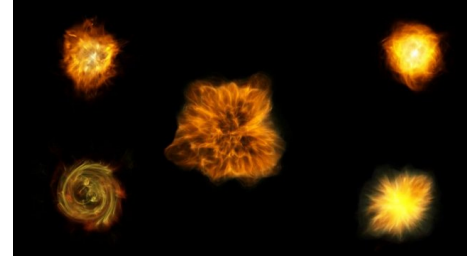
Tap Heels inside x8, Cross heel back x8. (3rd time Heels Repeat x4)

Sumo Squat in neutral spine to beat the drum center x 4 center, right x4-with lunge to right, center x4, left x4-with lunge to left.-repeat.

Both arms push down center, as both open knees come up x 16

Option for one knee raise with push downs, then switch to end of song.

Track 3- “Great Balls of Fire”



Jacks with hands touching behind the back x 4

Both feet Double bounce, then Jog, with punches x4

Double LOW kicks x 4, Double HIGH Kicks x4

Arms up, Kick to lunge backs x4 right, then lunge back left x4

Bounce Heel clicks x8 Repeat to top.

(will repeat move 1,2 & 3, then into lunge backs.)

Track 4- “Firestone”- (Noodle FireWorks!)



- 1. Place noodle under right foot, lift knee to hip line, then tap the floor repeatedly x16- various tempos: slow, medium, double-time**
- 2. Cross the midline to tap floor and abductor/adductor return x8**
- 3. Standing dynamic knee swings medial lateral rotation with arms reaching front, rotate swing arms w/ opposing the swinging knee. Repeat from beginning on Left leg.**

Track 5- “Girl On Fire” Noodle FireWorks!

1. Noodle behind back- seated neutral, knees together, then straighten both legs in pike even with hip bones as if sitting on a table, Kick legs 3 times- in quick, quick, slow- rhythm. (1,2,(fast) 3(open wider))

2. Keeping Heels together- swing both ankles side to side like a clapper inside a bell x16

3. Noodle in front of chest--Keeping knees together- open only at the ankles, then DOUBLE click heels together, open and close, then cross.

4. Keeping knees together- mermaid kicks-both legs together, both feet flip forward and back, then turn 360 circle right, then left.



Track 6- “Set Fire to the Rain”



Cross country ski x8 -moving forward/back

Skis- moving to right side x8, then ski double arm movement x8

Skis- moving to left side x8, then ski double arm movement x8

Skis- x4, then rotate skis turning 4 corners (Sun dial) R/L.

**Skis- Tuck-Ski-Tuck, Rebound(1), or, Neutral(2) , or
optional progression-
Suspended Skis(3)**

Track 7- “Fire With Fire” (Chair on deck)



Rebound, or neutral Tuck Jumps in center x 8,

Rebound Moguls x8 while arms down by sides push back.

Seated neutral Core Tucks turning right/left x8

Seated neutral Jack Tucks x 8— optional progression Suspended Jacks

Crab Walk front/back x8

Track 8- “Through The Fire”



Fish Turns-Step only right foot forward x 4, with $\frac{1}{4}$ turn rotate left- both elbows into either side of your ribcage with hands out on either side like fish fins. Turn 4 corners of room/pool. Switch stepping only left & rotating right.

Power runs/side steps with quick side punches moving right x8/Left x8

Rocking Horse –right foot X4, then Left x4, then Single/S /Dbl. R/L

Waves on Fire: Active Agers Choreography

Track 9- “Ancient Child” AiChi-Inspire Active Recovery Transition

Two Step Touches r/l-pulling arms, then single arm “Stir the Pot” R/L

AiChi-inspired Torso twists, then Wandering (banana peel hands)

Gathering the Chi- spinal flexion & extension with leg swing R/L

Standing Hip Rotations, Reaching Oblique stretches

Various stretches for back, chest, legs, arms & core.

Resources

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Thank you for attending!



“There is no arrival without a mindful journey.”

Connie Martin, M.A.



Ignite your core in the pool environment

**Aquatic Movement
Specialist**

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