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WELCOME TO THE 2019 FRPA CONFERENCE!

2

Creative Movement (Play) Can Change Your Brain Health!

3

LEARNING OBJECTIVES

Participants will be able to:

- define neuroplasticity;
- list and describe the five functions of the brain;
- list at least 5 of the 21 Ageless Grace® tools and describe their primary functions.

4

Ask yourself a very personal question:

What is your greatest concern about your health (and the health of your participants), for the rest of your life?

5

Until recently, major health concerns were heart disease and cancer.

Today the greatest health concern on our planet is **losing brain function as we age**...

6

People around the globe are concerned about being diagnosed with:

- Alzheimer's
- Dementia
- Parkinson's
- or some other form of cognitive decline.

7

Want to boost your brain power for life?

8

Scientists say there IS something you can do to prevent cognitive decline

Neuroplasticity

A big word that can have an even bigger impact
on the lives of each one of you
- and the lives of your participants.

Stimulate NEUROPLASTICITY

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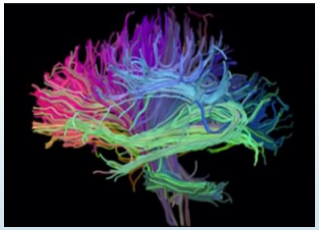
Neuroplasticity refers to the brain's ability to restructure itself after training or practice.



Neuroscientists believe the best exercise for the brain is *physical exercise!*

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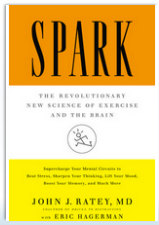
Neuroplasticity and Exercise



"Exercise prepares your neurons to connect, while mental stimulation allows your brain to capitalize on that readiness."

-Dr. John Ratey

DR. JOHN RATEY

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To paraphrase the author of SPARK:

When we move around we use more brain cells. And when we use more brain calls, we cause the genes to make more of a protein found in the brain and spinal cord called BDNF (brain-derived neurotrophic factor.)

BDNF promotes the survival & growth of neurons

Physical + Cognitive =

12

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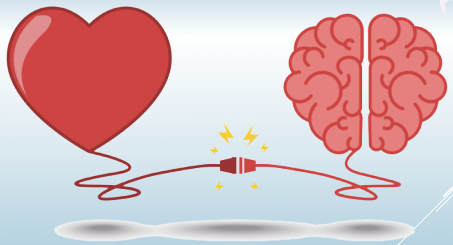
What's Good for the Heart…



Is Good for the Brain!

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Denise Medved, 66 years young…

Passionate about movement & exercise all her life

Congenital spinal challenges

Movement medicine - The more she moves the less pain she feels

The better her body and brain function

TEDx Speaker – *Changing Your Brain Can Be As Simple As Child's Play*
https://www.youtube.com/watch?v=cXTpLgtH60Y

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Denise's goal has been to understand:

- Why people age so differently? and…
- *DO WE HAVE ANY CONTROL OVER THE WAY WE AGE, BOTH PHYSICALLY AND MENTALLY?*

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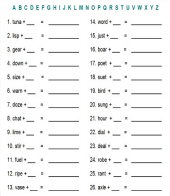
Simply playing at word games, numbers and puzzles….

- Does NOT delay cognitive decline
- Stimulates only SOME brain functions
- Makes you better at numbers and puzzles!



Traditional repetitive exercise…

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- Does NOT delay cognitive decline significantly
- Does NOT stimulate all functions of the brain

Consciously Choosing

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Doing something in a new or different way to engage all functions of the brain…

…can directly affect the quality of the rest of your life –
regardless of your age!

Pilot Study Conclusion

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Studies of the effects of Ageless Grace® on physical, cognitive and emotional well being are being conducted. These studies have not been published yet, but the conclusion of a pilot study done at Harding University demonstrated significant improvements in multiple physical and cognitive domains in elderly subjects with no reports of injury and a high degree of compliance.

Primary Purpose of the Brain

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- To control movement of the body
- From birth to mid-teens, you discovered how to do physical activities through trial and error
- Walk, hop, skip, run
- Hide-and-seek,
- Yo-yo, roller skate
- Play on a team
- Ride a bicycle

Did your Mama ask…

21

Why don't you go outside and fire a few neurons??

Every time you PLAYED you were firing neurons, developing neural pathways that deliver messages between your brain and body.

Five Primary Functions of the Brain

22

Let's use basketball to describe the five primary functions of the brain – all of which need to be stimulated through movement, ideally daily:

- to fire neurons,
- develop neural pathways and
- affect all 5 brain functions

Strategic Planning

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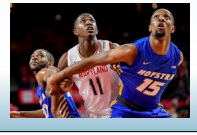
- How your brain helps your body figure out how to get from point A to B to C –

For the good of the game, should my body organize itself to dribble, block out, pass, shoot, or toss an "alley oop" right now?



Memory and Recall

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- Remembering a physical experience you've had or recalling information about that activity

If you ever swished the ball through the hoop, or saw Michael Jordan do it on TV, you remember how it feels to get a basket!

Analytical Thinking

25

- Breaking down the parts or components of an activity

In basketball, you can shoot, dribble, pass, run, fake, rebound – or cheer from the stands!

Creativity and Imagination

26

- Attempting to do something physical in a new or different way; seeing an image of yourself doing this even before you try it

Practice shooting lefty instead of righty – and imagine yourself swishing the ball on the buzzer!

Kinesthetic Learning

27

- Allowing your body to try something physical at first, while the brain observes what you're doing in order to make you more efficient (learning by doing)

No need to take a course in basketball, just grab a ball and jump into the game!

SMACK (crackle, pop!)

28

- S – strategic planning
- M – memory and recall
- A – analytical thinking
- C – creativity and imagination
- K – kinesthetic learning

The sounds of neurons firing!

Improvement through Practice

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After shooting the ball a hundred different ways, and firing thousands of neurons, you improve!

Messages began to travel quickly along neural pathways…or information highways.

PLAYING

30

Stimulated neuroplasticity by physically learning, and we didn't even realize it!

Physical movement and activity developed our brains in the first place –

Dr. Norman Doidge

31

Author of The Brain That Changes Itself

"We must learn new things in order to feel fully alive. When we learn, we alter genes in our neurons, which can change our brain."

Neuroscientists now know

32

we can still develop and change our brains, no matter how old we are!

Restore, Maintain and Develop

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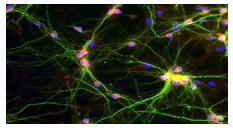
Affecting neural pathways – through "play" –



- Doing something we don't know how to do
- Doing something we already know how to do in a different way

10 Minutes of Play Daily

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- Can stimulate all 5 brain functions through physical action
- "Play" can be more fun than "working" out!

35

music / sound is a nutrient for the central nervous system!

36

Power of Music and Movement!

EMOTIONAL RESPONSE:

- Elevates mood
- Stimulates feelings of happiness and/or sadness
- Awakens memories and/or visual imagery

PHYSICAL RESPONSE:

- Brain scans show that music activates the movement part of the brain
- Studies suggest that even if perfectly still, electrical activity is stimulated in areas of the brain important for coordinating movements
- Auditory and motor neurons are connected which is why we have the desire to move in time to the beat.

Seated for 5 Reasons,
Not Due to Age, Balance or Fragility

1. Causes brain to figure out how to do these exercises in a chair rather than standing
2. Engages core muscles
3. Stimulates vital organs
4. Activates systems and "stirs up" energy centers
5. Levels the playing field – all can participate.

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Team Fit

Choose any sport and pretend to play in your chair –

- Baseball
- Soccer
- Basketball
- Surfing
- Hockey
- Ice Skating
- Skiing
- Ping Pong
- Olympics etc.

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Spelling “B” for Body

39

- Instead of using a pen or pencil, spell with your body (hands, elbows, knees, belly-button, back, nose, feet)
- Any language
- Any word
- Print or cursive
- Letter by letter
- Complete word
- Forward or backward

Gentle Geometry

40

Circles, lines and triangles

- Different shapes
- Sizes
- Speeds
- Different body parts, simultaneously

Stimulates neuroplasticity by doing something you don’t know how to do.

Body Math

41

- Tap hand and foot
- Count aloud
- Clap on random numbers

- RESPOND
- REACT
- RECOVER

Mitigates falls, accidents, unexpected surprises

Rockin' Rocky or Rockettes

42

- Kick – one
- Lift - both
- Directions
- Cross legs/corners
- Rumble
- Karate
- Dance
- Fan or Knee Sweep
- Bend - foot forward

“Pretending” Causes SMACK

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- Pretending to play sports, spell with your body, create shapes...causes your brain to:

- Strategize
- Use Memory and recall
- Analyze
- Be Creative and imaginative
- “Figure it out” with your body first

Activates all 5 of your primary brain functions.

Dr. Doidge Says:

44

Imagining an act and doing it are not as different as they sound from a neuro-scientific point of view. Brain scans show that action and imagination “light up” many of the same parts of the brain.

More: Front Row Orchestra

45

– pretending to play different musical instruments and tapping your feet

Power Tools

46

– imagining you are using various tools to build a house or landscape a yard

Dive In

47

– acting as if you are swimming in your chair, using various strokes and dives

Zoo-ology

48

– moving systemically as if you are different kinds of animals

More Tools…

- Juicy Joints
- Try-Chi
- Yo-Baby
- Spaghetti Spine
- Express Yourself
- Balancing Act
- Breathe Out Loud

49

And More Tools…

- Saving Face
- Grab Bag
- Shake It Up Baby
- Get Down, Get Up
- Dance Party

21 Simple Tools for Lifelong Comfort and Ease™

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Daily Life Choices

51

- Knit or sew and change hands
- Play tennis and serve on the other side
- Learn to juggle
- Drive or walk a different route
- Take up a new sport

DAILY PILL

52

Play

Instead of

Living

Limited

Play a few of these simple games each day:

- Improve your brain and body skills and
- Live an ageless, graceful and happier life!

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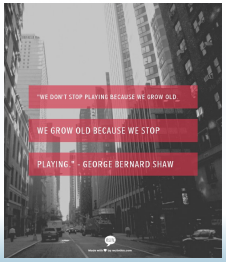
George Bernard Shaw

"We don't stop playing because we grow old; we grow old because we stop playing."



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for you and your participants

- PLAY 10 minutes a day, every day!
- Come up with new ideas each time.
- Try something you've never done before.
- Do something you know how to do differently.

"Creative Movement Can Change Your Brain Health!"

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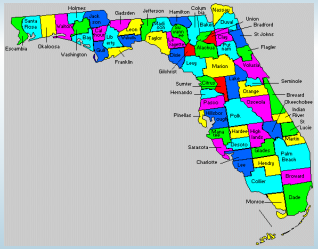

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