



Did you know that movement is a powerful learning mechanism? It's true. Sadly, so many learning events (still) involve the "sit and get" philosophy. Now that we are all working in a virtual world, we want to emphasize the importance of movement as you design and deliver virtual events. As always, we start with the science.

There is a direct biological connection between movement and cognition!<sup>1</sup> In simple biological terms, when we are physically active, our brains increase the production of a protein called brain-derived neurotrophic factor (BDNF).<sup>2,3</sup> This essential protein increases the brain's ability to make and strengthen important connections in our brains. This increase in connectivity and efficiency is directly linked to our capacity to learn and remember.

In addition, movement increases heart rate, which increases blood flow, which increases oxygen to the brain; all of this elevates the capacity to take new information and stamp it into memory. Here are some benefits of movement:<sup>3</sup>



- + Improves ability to focus
- + Reduces cognitive fatigue
- + Propels attention
- + Reduces restlessness
- + Elevates mood
- + Primes state of mind

**So, what on earth do we do when designing and delivering virtual events?**

## Design

- + When designing your virtual event, think about the 3-5 rule ([See ETR Virtual Vitality Tip Sheet #1](#)) and add time for processing after 3-5 minutes of content. Add movement during some of those process checks. Examples include:
  - Stand [or Stretch]-Think-Share.
  - Post-it® and post it (write a reflection/insight on a Post-it® note and then move to post it on your wall).
  - Superhero insight stretch – stretch right arm up angled toward the sky, palm up; the other arm stretched down at opposite side. Gaze up at your right hand while proudly stating your insight. Feel the stretch!

- + Always pay attention to issues related to equity and inclusivity.
  - Anticipate that learners will be at different ability levels and make sure to provide options when interjecting movement.
  - Consider the language you are using and make sure it is inclusive (you will see several examples throughout this tip sheet).
  - Alert learners that movement suggestions are always optional and can be adapted as they wish, depending on their situation.
- + If your virtual event is over 60 minutes, design the event so there is a designated break time and suggest some movement strategies during the break for learners to get their hearts pumping.
  - Ten arm circles
  - Three to five toe touches
  - Walk up and down stairs three times
  - Ten appendage stretches in your chair
  - (Walk, Skip, Hop or Roll) around the room and back again
  - Five neck rolls in one direction then five in the opposite direction – slow and easy
  - Other ideas?

## Delivery

- + **Shall We Dance.** Start and end your event with music and encourage your group to move to the music in any way they feel comfortable. Be prepared – learners will ask you for the names of the songs!
- + **Shake It Off.** During transitions from one topic to another, ask participants to “shake it off” (seated or standing) by shaking head, hands, and/or legs to clear their brains from one topic and get ready for the next.
- + **Key Concept Retrieval.** Ask learners to stretch their arms above their heads (seated or standing) while repeating a key concept or insight (insert any type of stretch).
- + **Butterfly Count.** If you have 2-5 key points you are making, ask learners to repeat (retrieve) those points (microphones off) while doing the butterfly stretch – one stretch per point. Butterfly Stretch Directions: put arms together touching from elbows to wrists vertically in front of you, make fists. Move your arms out -right arm to the right and left arm to the left like you have wings. Feel the stretch! Repeat for each key point.
- + **Breakout Room Stretch-Version 1.** If using breakout rooms, suggest that learners stand during small group discussions. To bump it up – include stretches, lunges, toe touching, or other movement while discussing.

- + **Breakout Room Stretch-Version 2.** If learners are using cell phones – suggest they walk or roll and talk while discussing the guiding questions in their breakout rooms. Alert them to designate a timekeeper so they are back in time.
- + **Thumbs-Up Chat.** If using a chat box, ask learners to gesture an exaggerated thumbs up when they agree with something in the chat box.
- + **Jammin' Minute.** For longer sessions, consider sharing a Jammin' Minute video and ask learners, as they are able, to join in. (Jammin' Minutes are 60-second physical activity workouts [easy] featuring young children)

- <https://www.youtube.com/watch?v=X6Uyru4fAoc&feature=youtu.be>

**What ideas do you have to nurture the power of movement during virtual events?**



## **We hope these tips are helpful! Let us know if you have questions**

ETR will be continuing the Virtual Vitality series to provide support for best practices in designing and delivering virtual learning processes. In addition, we are offering consultation services to assist constituents in learning best practices for virtual design, delivery and follow-up.

If you have questions, suggestions, or just want us to have your contact information for future tips and resources on virtual learning, you can contact Debra Christopher at [D4L@etr.org](mailto:D4L@etr.org) and share your request, your name, and your contact information. We look forward to connecting with you.

### References

1. Vaynman, S., Ying, Z., & F. Gomez-Pinilla. (2003). Interplay between brain-derived neurotrophic factor and signal transduction modulators in the regulation of the effects of exercise on synaptic-plasticity. *Neuroscience* 122(3): 647-57.
2. Wrann, C., White, J., Salogiannis, et.al. (2013). Exercise Induces Hippocampal BDNF through a PGC-1α/FNDC5. *Cell Metabolism* 18, 649–659, Elsevier Inc.
3. Medina, J. (2014). *Brain rules*. Seattle, WA. Pear Press.