

First, “Pull Yourself Together!”

It is important to have good body alignment and ‘connection’ before you move or exercise. Actually, it is good to be connected all the time! Imagine the collapsing push-puppet shown here. Hypermobile people are like the floppy puppet, drooping loose (bottom picture). Before moving, imagine strings inside your body, pulling your joints gently together. “**Pull Yourself Together**” like the top picture, so you are better aligned and have some elasticity in the joints (not stiffness, just a bit of elastic tension, like the puppet).



Augmented Reality Movement Games

Only do what is safe and comfortable for you. Don’t move faster than you can safely. Modify or avoid any movement that is too difficult, such as squatting or jumping. These games can be played on any phone/tablet, but a wide screen TV is best.

1. **Active Arcade** (entirely free) Can be played on wide-screen TV. Demo: https://youtu.be/yyz_XBUkBLw



- a. **Whack A Mole** uses arm movement, some reaching/balance. Could be done sitting. 1 or 2-person game. (easy, small space)
- b. **Reaction:** Reach side to side to touch targets. Balance, reaction time, proprioception, motor control. Can be done sitting. (easy, small space)
- c. **SuperHits:** You can pick your favorite music, and touch or slash targets to the beat of the music. Especially fun if you like to move to music. Many music choices. Can be done sitting. (easy, small space, dynamic music)
- d. **Pose:** A character on the screen takes a fashion pose, and you try to recreate it. (slow, easy, though some poses involve standing on one leg, wide space)
- e. **Space Pong:** Ping Pong with a laser ball. Uses only one arm, so good if you can only use one arm, but less interesting than other games. Can be done sitting. (easy, small space)
- f. **Reaction Flow:** touching targets in numerical order. Adds thinking challenge.
- g. **High Kicks:** punch or kick targets. Need reasonably good balance on one foot, but the kicks are not very high. (intermediate, wide space)
- h. **Laser Dodge:** full body movement to escape laser beams. Requires squats, ducks full body movement. Aerobic. (advanced, wide space)



2. **Party Fowl:** multi player party games. Best on full screen TV. A variety of games that involve movement, generally not fast or difficult. Fun interactive game.

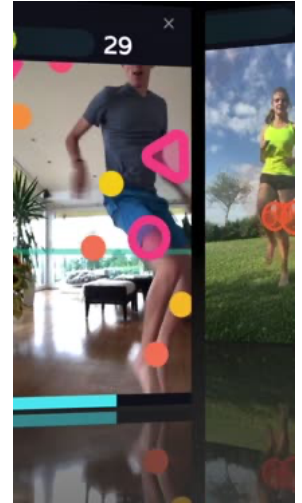
- a. 2 players together, recommend in front of bigger screen
- b. Each person is rated on how well they perform the task, such as crushing ice blocks, recreating poses, etc. Varied activities.
- c. Can play the first few games for free, then would need to purchase additional games

3. **Starr:** like SuperHits, with different levels of difficulty. Will release in September. First few songs are free, then pay for a pack of songs.

4. **Plaicise:** A set of games where you avoid, punch, kick, or slice moving targets. Several games are free for individuals; several require 3+ people to sign in to play them. Other games are available for purchase. Compete against yourself or head-to-head against others. The “Moving” set of games is probably most appropriate for Zebras.



- a. **Ufo:** side step to avoid UFO landing on you, squat to shoot them down. (intermediate, wide space)
- b. **Boxer:** punch or kick random targets. Can be done sitting.
- c. **Ninja:** duck or reach to slice moving targets. More dynamic.
- d. **KneeShooter:** Lift your knee to hip level to shoot a ball to pop bubbles.
- e. 2-person games (tend to be more difficult with squatting and jumping)
 - i. FastCollect: jump and duck
 - ii. Ninja Team: jump and duck
 - iii. UfoSquatTeam: squat jump



5. **Zombies Run:** A soundtrack for walking (or running), not a game, but a fun way to stay motivated if you walk for exercise.

- a. Walk or run with audio track telling a story of a zombie invasion. Collect supplies as you walk. Audio only. You can walk/run at any speed. Options include zombie chase, where you need to speed up for a few minutes to escape zombies.

How These Activities Can be Helpful

1. “**Pull Yourself Together**” helps improve body awareness by having people visualize their body floppy and then visualize it pulled together. It can improve joint alignment by imagining the spine and limbs held together by strings creating a gentle compression without being stiff.
2. **Augmented Reality**
 - These games are both fun and also be good exercise. They can help develop body awareness, muscle control, balance, reaction time, core stability; some also provide aerobic exercise.
 - Being able to see yourself on the phone/TV is even better than headset VR, because it provides visual feedback that can help improve body awareness. And it avoids the weight of the headset, which can be a problem for people with neck instability.
 - Aiming for targets or moving to avoid targets provides both body awareness and motor control training. Actual VR rehab programs work this way.
 - Games with reaching side to side provide a lot of core stabilization training. In PT, we call this 'dynamic stabilization' when you try to hold one body part stable while moving surrounding body parts. At first, you might think Whack-A-Mole and Reaction are just arm exercises, but they actually provide excellent dynamic core stabilization as you reach one direction then another. This is true even if you do these games sitting.
 - Games requiring reaching or stepping side to side are good for hip stabilization and strengthening as well with all the weight shifting.
 - Several of the games (Whack-A-Mole and Reaction) can be done sitting (or in wheelchairs) - adjust the distance and the game just thinks you are a short person.

Remember – only do movements that you feel are safe for your body! Don’t feel like you have to go as fast as possible in the games – start at a comfortable pace and you will probably get faster as you get stronger and more stable. Playing these games with friends and family can make ‘exercise’ more social and fun.