



# PISTA TABLE TENNIS FOR ALZHEIMER'S PATIENTS

The PISTA Ping Pong Program is designed to provide support and therapeutic benefits for individuals in the community who are living with Alzheimer's and dementia. This program utilizes a PISTA device, which incorporates binaural beats to induce brain entrainment in patients.

**Brain entrainment** is the process of aligning brainwave patterns with external stimuli, such as rhythmic sounds or light pulses. **Binaural beats** are a type of auditory stimulation that involve presenting different frequencies to each ear. When the brain processes these frequencies, it creates a perceived beat that corresponds to the difference between the two frequencies.

In the context of the PISTA Ping Pong Program, the PISTA device is used to generate binaural beats specifically tailored to the needs of individuals with Alzheimer's and dementia. These binaural beats are incorporated into the ping pong game, providing rhythmic auditory stimulation during gameplay.

The use of **binaural beats** in conjunction with the ping pong game aims to achieve brain entrainment in patients. It is believed that this entrainment can have several potential benefits. For individuals with Alzheimer's and dementia, brain entrainment through binaural beats may help stimulate neural pathways, improve cognitive function, and enhance focus and attention.

Furthermore, engaging in the ping pong game itself can provide physical exercise, promote social interaction, and improve hand-eye coordination. These factors contribute to a holistic approach to supporting patients with Alzheimer's and dementia, addressing both cognitive and physical aspects of their well-being.



# PISTA PING PONG BENEFITS



The PISTA Ping Pong Program offers several potential benefits for individuals with Alzheimer's and dementia. Here are some of the benefits associated with the program:

**Cognitive Stimulation:** Engaging in the ping pong game, combined with the rhythmic auditory stimulation of binaural beats, can help stimulate neural pathways and promote cognitive function. This may include improvements in memory, attention, and problem-solving abilities.

**Brain Entrainment:** The use of binaural beats aims to induce brain entrainment, aligning brainwave patterns with external stimuli. This synchronization of brainwaves may promote a state of relaxation, reduce anxiety, and improve overall mental well-being.

**Physical Exercise:** Participating in the ping pong game requires physical movement, which can provide a form of exercise. Physical activity is beneficial for maintaining mobility, coordination, and overall physical health.

**Social Interaction:** The PISTA Ping Pong Program encourages social interaction among participants. Playing the game with others can foster connections, enhance communication skills, and provide a sense of community and belonging.

**Emotional Well-being:** The combination of cognitive stimulation, physical activity, and social engagement can contribute to improved emotional well-being. Participating in enjoyable activities and connecting with others can promote feelings of happiness, fulfillment, and reduced feelings of isolation.

**Hand-eye Coordination:** The nature of ping pong requires coordination between visual perception and physical movement. Regular practice can help improve hand-eye coordination, fine motor skills, and spatial awareness.