

July 31, 2026

To Members of the Press

T-NEXT (General Incorporated Association)

**T-NEXT and MITS Technologies Report the
First-Phase Findings of Their Joint Research on the Prevention and Improvement
of Dementia through Table Tennis**

**Prefrontal cortex stimulated in all participants:
table tennis is not merely exercise, but exercise that activates cognitive function**

The General Incorporated Association T-NEXT (head office: Tokyo; Representative Director: Yosuke Kurashima; hereinafter “T-NEXT”), which upholds the mission of “developing table tennis talent able to compete on the world stage,” “realizing an enriched society through table tennis,” and “creating new value through table tennis,” has been conducting the “Joint Research on the Prevention and Improvement of Dementia through Table Tennis” together with MITS Technologies, Inc. (Representative: Yasue Mitsukura; hereinafter “MITS”), which possesses advanced electroencephalography (EEG) analysis technology. We hereby report the results of the first-phase investigation (preliminary study) of this joint research.

In addition, in light of the results of the first-phase investigation, T-NEXT is launching a full-scale call for partners as it advances activities to establish “a life with table tennis” as a culture and to build a new social health infrastructure.

* This announcement is a follow-up to [“T-NEXT Launches Joint Research with MITS Technologies,”](#) released on June 9, 2026.

■ Summary of the First-Phase Findings

High-precision analysis using an EEG system (g.tec medical engineering GmbH) confirmed clear changes in brain activity patterns before and after playing table tennis.

● **Stimulation of the prefrontal cortex**

In all participants, clear changes in activity and activation were observed in the prefrontal cortex, the region that governs decision-making and emotional regulation and is often called the brain’s command center.

● **Progress toward greater “efficiency” in the brain’s information processing**

A shift was confirmed toward a state of “reduced wasteful energy consumption in the brain,” in which unnecessary loads such as visual processing decreased without any accompanying cognitive fatigue.

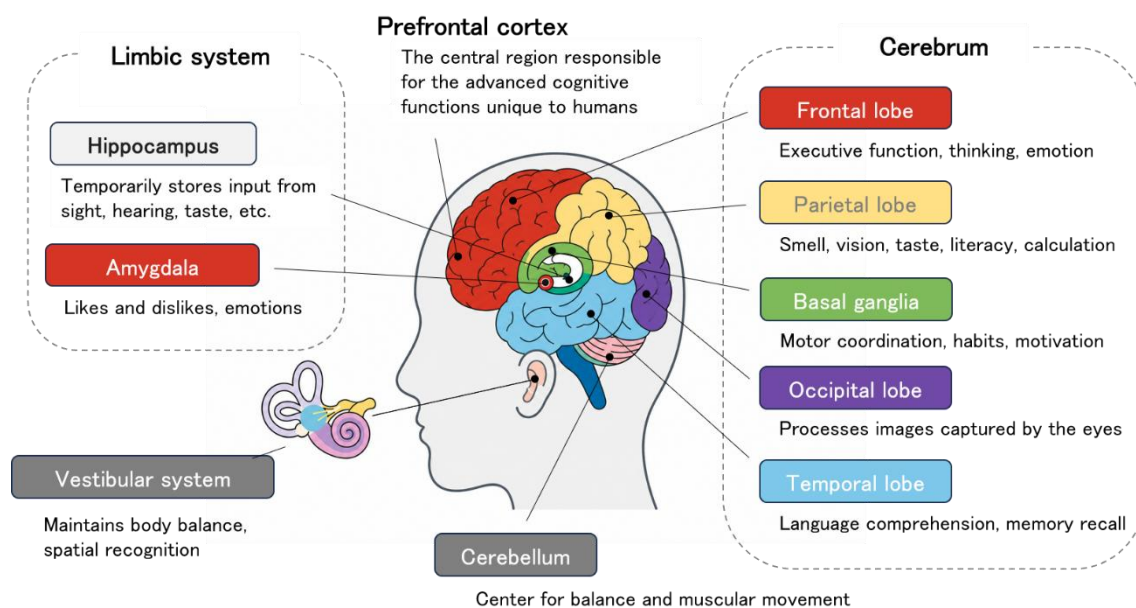
- **Improved motivation and positive emotion**

The activation of regions associated with emotional regulation suggests an improvement on the affective side, enhancing not only the ability to think but also the ability to stay positive.

Because table tennis is a sport that stimulates the prefrontal cortex, the brain's command center, there are strong expectations for it as "exercise for the prevention of dementia and the maintenance of cognitive function."

In other words, evidence is beginning to emerge that table tennis is not merely exercise, but "exercise that stimulates the prefrontal cortex and activates cognitive function."

* Each region of the human brain plays a different role. In this final report, we analyzed how these regions changed as a result of the table tennis intervention.

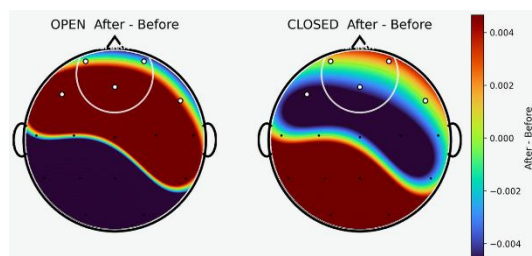


* "Main Regions of the Brain and Their Functions" Prepared by T-NEXT

■ Detailed Results of the First-Phase Investigation

Analysis of changes in resting-state EEG potentials in the participants (four healthy older adults in their 60s to 80s) visualized concrete changes directly linked to each individual's everyday challenges.

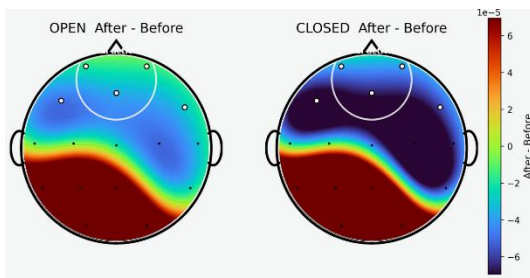
- **[Female participant, age 81]**



The brain's "command center" switches on

Attention function and the cognitive control system (frontal lobe) were activated extremely strongly. This strongly suggests the value of table tennis as a means of directly addressing cognitive function in older adults.

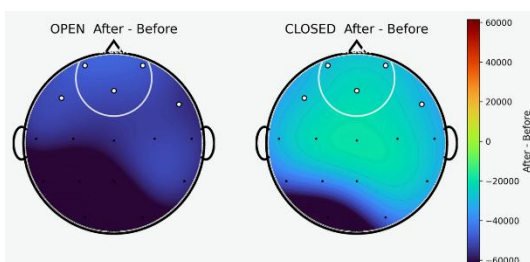
- **[Male participant, age 69]**



Enhanced ability to think and to stay positive

The “left frontal region,” which is associated with positive emotion and motivation, was predominantly activated. This indicates a possible contribution to the “drive” and “sustained motivation” that are important in dementia prevention.

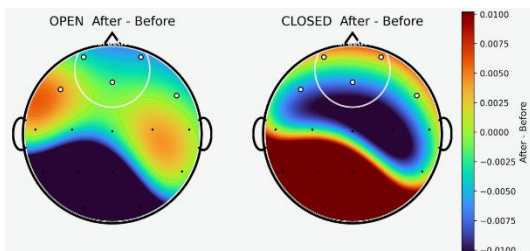
- **[Female participant, age 69]**



Cutting wasteful brain activity

After playing table tennis, the activity load in the “occipital lobe,” which handles visual information processing, decreased, and processing across the brain as a whole became more efficient. The brain is considered to have suppressed unnecessary excitation, reaching a highly relaxed yet sharply focused and efficient state.

- **[Male participant, age 74]**



Moving the body puts the brain into gear

Activation was observed in the neural networks involved in motor planning and body control (frontal and central regions). The findings clearly show a process in which moving the body allows the command pathway from the brain to the body—which tends to become somewhat sluggish with age—to begin running smoothly once again.

■ “The Effects of Table Tennis” Seen through Comparison with Other Sports

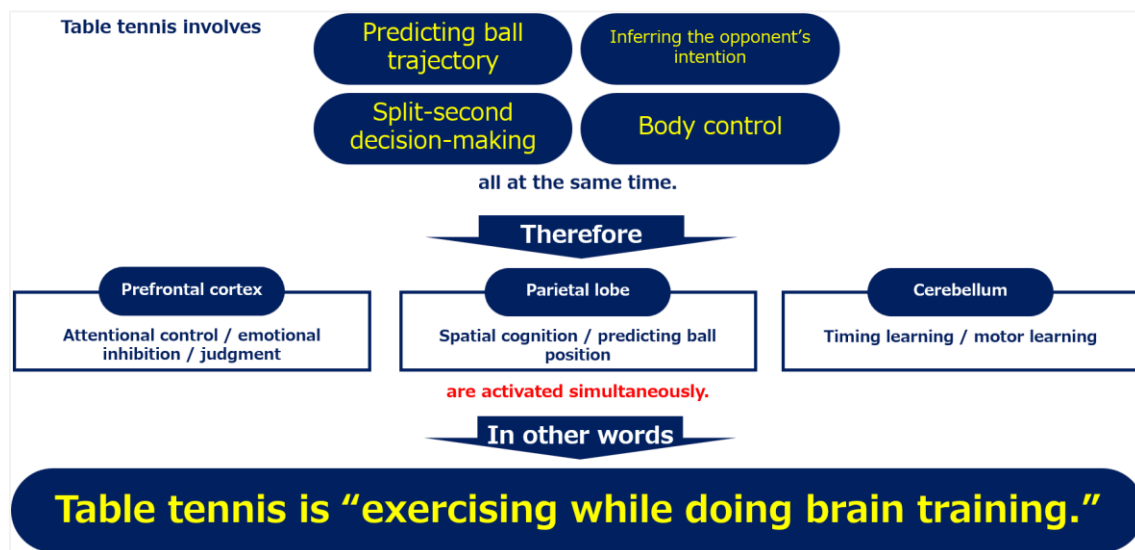
It is widely known that exercise has beneficial effects on the brain. Based on this joint research and existing academic findings, table tennis has the distinctive characteristic of combining physical activity with instantaneous judgment and prediction, and it is expected to be applied to the maintenance of cognitive function and the prevention of dementia.

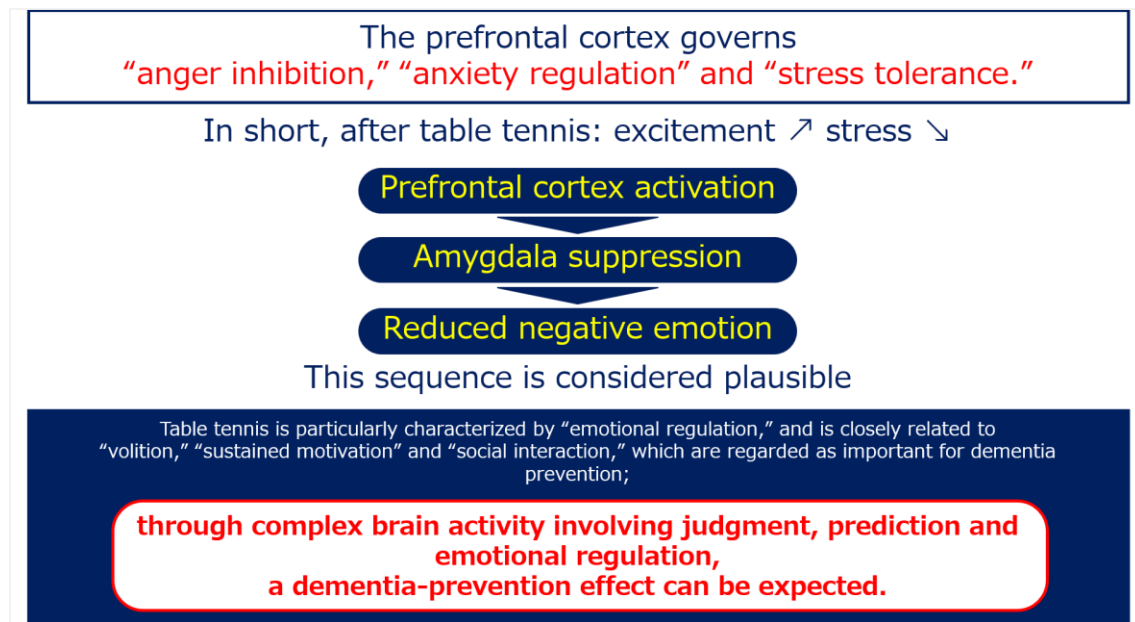
Exercise	Main brain regions	Expected effects
Table tennis	Prefrontal cortex + cerebellum + parietal lobe	Emotional regulation, improved attention, dementia prevention
Walking	Hippocampus	Improved memory

Running / aerobic exercise	Hippocampus + prefrontal cortex	Improved memory, improved mood
Strength training	Prefrontal cortex	Improved judgment, improved concentration
Dance	Basal ganglia + cerebellum + hippocampus	Improved cognitive flexibility
Yoga	Prefrontal cortex + amygdala	Stress reduction, emotional stability
Tai chi	Vestibular system + prefrontal cortex	Fall prevention, maintenance of cognition
Balance exercise	Vestibular system + parietal lobe	Improved spatial cognition
Mountain climbing	Hippocampus + prefrontal cortex	Improved memory and problem-solving ability

■ Expectations for Dementia Prevention through Table Tennis

Table tennis is more than mere physical activity. From the perspective of brain science, it has been substantiated that table tennis is a highly safe lifelong sport with little risk of excessive physical strain or injury, and at the same time a uniquely cognitively stimulating form of exercise that promotes an extremely sophisticated “switching of the brain” involving judgment, prediction, and emotional regulation.





* Hypothetical model based on this joint research

■ On the First-Phase Findings / Comment from Representative Director Yosuke Kurashima

Table tennis is a sport that requires not only the use of the whole body but also a high level of cognitive activity. Players continually repeat a sequence of cognitive processes—drawing on dynamic visual acuity, predicting the opponent's movements, and making instantaneous judgments as they play. Moreover, the way players naturally carry out complex information processing that could be described as dual-task, and at times even triple-task, is in our view a major characteristic unique to table tennis.

Table tennis is also a lifelong sport that is unaffected by the weather and can be taken up relatively inexpensively in a small space. Not only can it be enjoyed by a wide range of generations, from young children to older adults, but it can also be adapted to each individual's physical condition through variations such as large-ball table tennis and table tennis played while seated. In addition, table tennis is a sport in which the very act of keeping a rally going is a source of enjoyment. As players exchange rallies with one another, conversation and smiles arise naturally, and connections between people are nurtured. Beyond mere competition, the fact that players can support one another and share enjoyment is another of table tennis's distinctive charms and major characteristics.

We would like to express our heartfelt gratitude to everyone at MITS Technologies, Inc. for examining these possibilities of table tennis from the perspective of cutting-edge brain science and making its new value visible. Having the potential that the table tennis community has long sensed through experience demonstrated as scientific evidence is, we believe, a major step forward for the future of table tennis.

Although this first-phase investigation is a preliminary study, we believe it marks a first step in showing that table tennis can contribute to solving social issues—not only as a competitive sport but also through anticipated applications in extending healthy life expectancy, maintaining cognitive function, and even preventing dementia. T-NEXT will continue to accumulate research, communicate to society the "value that only table tennis can deliver" together with scientific evidence, and spread "a life with table tennis" as a new culture.

"I see—so that's why table tennis."

Through this joint research, we hope that as many people as possible will come to feel this way, and we will work toward a future in which table tennis is widely recognized not only as a competitive sport but as a sport that supports people's health, smiles, and connections with one another.

■ Future Activities

- ① **Conducting a “main study” to ascertain the effects of table tennis in preventing and improving MCI (mild cognitive impairment)**
We will establish a table tennis intervention program (table tennis group vs. a control group performing activities such as walking) and, using MITS's simplified EEG device “MCI Analyzer,” quantify correlations with standard cognitive test scores as well as rates of improvement in cognitive function.
- ② **Launching a full-scale call for partner companies**
Building on the efficacy evidence obtained from this joint research, T-NEXT will develop and socially implement a variety of well-being programs through table tennis in order to create new value. As part of enhancing corporate value—through health-oriented management, the extension of healthy life expectancy, and the creation of business opportunities among senior demographics—we are launching a call for partners who will create social impact together with T-NEXT. Further details will be announced separately.

[Inquiries about this release and consultations regarding collaboration]

Interested corporate representatives and members of the press are welcome to contact us at the address below.

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