

Combination of aerobics and resistance exercises drastically improve brain health in older adults, reports study

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The *British Journal of Sports Medicine* has published online the most complete review of the available evidence to date, that a combination of aerobics and resistance exercises can drastically improve brain health in adults over 50 years, irrespective of the current brain health status of the individual.



The researchers note that though physical exercises successfully show signs to prevent or slow down a decline in the brain health of individuals and their cognitive abilities, the proof for their benefits are uncertain as the reviews published to date include inclusion criteria that are excessively restrictive.

To address these gaps, the study team assessed 39 appropriate studies published till the end of 2016 to evaluate the possible impact of different types of exercises, their intensity, and the exercise session time on the brain health of individuals above 50 years of age.

The research group included aerobics, resistance training such as weights, a combination of both, and multicomponent exercises such as tai chi and yoga. They then analyzed the possible impacts on the:

- overall capacity of the brain (global cognition);
- attention (continual alertness and the capability to process information quickly);
- executive function (processes responsible for cognitive behavior control);
- memory (storing and recalling information);
- working memory (short-term memory).

Collective analysis of the data confirmed that exercise improves the brain health of those above 50 years, regardless of their current brain health status.

Cognitive abilities were improved considerably due to aerobic exercises while executive function, memory, and working memory showed a prominent improvement due to resistance training.

The research group said that the results are a strong indication to advise practicing both types of exercises to improve brain health in older adults. Though the cognitive abilities have shown improvement with tai chi, supporting the previously available study results, the researchers cautioned that the analysis was based on a few studies and to confirm the results, large clinical trials need to be carried out.

They suggested, however, that it is an important result as exercises like tai chi may be suitable for people who find it difficult to do more physical activity that are challenging.

On analysis, the data reveal that a 45–60 minute exercise session of medium to extreme intensity and of any frequency enhances brain health.

The research team pointed out that the evidence was limited to supervised exercise studies published in English. They cited this as a potential limitation and concluded that the findings put forward a minimum of 45 minutes of moderate intensity exercise session with both aerobic and resistance type components, on the maximum possible days every week as advantageous for cognitive functioning in adults over 50 years of age.

Source:

https://eurekalert.org/pub_releases/2017-04/b-aar041917.php
