

Watching sport can make you fitter, study claims

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Watching sport can make you fitter, according to research Sunday that said viewing other people exercise increases heart rate and other physiological measures as if you were working out yourself.

The study, published in the international journal *Frontiers in Autonomic Neuroscience*, showed that when watching a first person video of someone else running, <u>heart rate</u>, respiration, skin blood flow and sweat release all increased.

They returned to normal at the conclusion of the "jog".

Researchers said that importantly, for the first time, it was shown that muscle <u>sympathetic nerve activity</u> increased when people watched physical activity.

"Recording this nerve activity provides a very sensitive measure of the body's <u>physiological responses</u> to physical or <u>mental stress</u>," said one of the lead researchers Vaughan Macefield, from the School of Medicine at the University of Western Sydney.

"We know that the <u>sympathetic nervous system</u>—which supplies the heart, sweat glands and blood vessels, as well as other tissues—increases its activity during actual exercise.

"Now we have shown that it increases when you are watching a moving scene as if you were running yourself."



During the study, very fine needles were inserted into an outer nerve of nine volunteers to record the electrical signals of nerve fibres directed to <u>blood vessels</u>, providing a very sensitive measure of the body's physiological responses to physical or mental stress.

The participants were initially shown a static image on a computer screen while the researchers monitored their muscle sympathetic nerve activity and other physiological parameters.

These measurements remained constant while watching the non-moving landscape image, but that changed when shown a 22-minute video shot by a runner on a vigorous jog.

"Although these changes were small, they were all appropriate physiological responses to exercise," said Rachael Brown, who conducted the study with Macefield, considered a top world expert in recording human sympathetic neurones in health and disease.

"As the volunteers were sitting relaxed with no muscle activity it indicates that the responses were psychogenic—that is they originated from the mind and not the body.

"This dovetails with our recent work on the emotions, where we found that viewing emotionally charged images, such as erotica, increases our sympathetic <u>nerve activity</u> and sweat release."

While the study concluded that your body will get a small workout from simply watching others exercise, Macefield cautioned that nothing compared to real physical activity.

"While watching other people exercise may increase your heart rate and have other physiological effects, nothing can replace the health benefits of getting off the couch," he said.



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