

## Is Watching Sports as Good as Playing Sports?

I haven't been to the gym for two weeks, but it's fine: I just need to watch sport on television. [A study from the University of Montreal](#) has found that watching ice hockey substantially increases your heart rate. For television-watchers, the increase was an average 75%, while for those watching live it rose by 110%. [This is equivalent](#), say the researchers, to moderate and vigorous exercise respectively. Heart rates were highest during overtime and if there were scoring chances.

### The solution

As with all research, you have to ask if the results are applicable to people outside of the study. In this case, maybe not – not everyone finds ice hockey exciting, after all.

However, there is other research showing that watching football can stress the heart so much that it triggers strokes and heart attacks. [A study of German fans](#) compared heart rates and blood pressure as they watched their country play in the 2006 World Cup. Both heart rate and blood pressure were raised – thought to be due to adrenaline release – when they watched their own team, and stayed higher for hours afterwards.

The Canadian study (which claims to be the first to measure the pulses of people watching an ice hockey game) was prompted by an observation made by 13-year-old Leia Khairy, daughter of Prof Paul Khairy, the lead researcher. She noticed that while her own heart was pumping as she played soccer, the parents on the sidelines were jumping up and down even more energetically.

But Khairy is very clear: “Watching an ice hockey game is not a substitute for physical activity. It raises heart rate (and likely also increases blood pressure, although this was not measured in our study) but does not carry the same benefits on cardiovascular health as exercise.”

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There is also no weight-bearing among spectators, apart from the occasional leaping from a seat – so muscles are not being exercised. More of a worry is that watching sport causes emotional stress, which research shows can trigger heart attacks in people who already have underlying heart disease. In this respect, watching ice hockey joins other known triggers for cardiovascular events such as hot weather, holidays, earthquakes, sex and cocaine use.

The study of German football fans found that a stressful match more than doubled the risk of a heart attack or a stroke. So it may be that you need to be fit before you watch a sporting event, rather than hope it is the equivalent of a short burst of exercise. Studies have only shown a significant effect on men, and there is no correlation between a fan's emotional connection with a team and the triggering of a heart attack. The authors of the Canadian paper suggest that anyone watching an exciting game should take seriously any symptoms such as chest pain or shortness of breath.

## What Happens to Brain and Body When You Watch Football

### MIRROR NEURONS MAKE YOU FEEL LIKE PART OF THE TEAM

One of my favorite things to mess with my friends about while we're watching football is how they seem to genuinely believe that as fans, they are one with the team — and habitually refer to their favorite teams as “We.” “We really need to pick it up on defense out there,” or, “I can't believe we're going to pull this off!”

Yeah, Greg. Sure. You're really playing a large role in the outcome of this game.

But that doesn't mean it doesn't genuinely feel to them like they are.

According to David Ezell, licensed professional counselor and clinical director and CEO of therapy provider [Darren Wellness](#), adult humans have specialized neurons in their brains called mirror neurons that allow us to understand points of view outside of our own. These neurons enable us to [put ourselves in another person's shoes](#) and imagine what they are going through in a particular moment.

“These feelings are magnified when we are watching a football team or player we are fans of because we ‘know’ them,” says Ezell. “When we see them on the field we are experiencing a portion of the feelings they are having because our mirror neurons are at work.”

Thankfully, we can’t actually feel the precise and likely painful sensation of what it must be like to get crushed on a kick return or sacked right when you’re about to make a throw, but mirror neurons do allow us to experience a game to some degree as if we were actually there and participating in it.

## CHEMICALS AFFECT YOUR OVERALL MOOD

If you’ve ever watched a game with any real level of interest, especially a particularly close or intense one, you’ve probably felt better following a win than you have felt in the wake of a loss.

This has something to do with neurotransmitters, chemicals that your brain produces to [regulate your mood](#). Hormones can play a role, as well.

According to Dr. Richard Shuster, clinical psychologist and host of [The Daily Helping](#) podcast, when your team wins or is playing well, your brain starts releasing the neurotransmitter dopamine, which is directly involved in regulating the brain’s reward and pleasure centers.

Conversely, when your team performs poorly or loses, your brain produces cortisol, a hormone made in your adrenal glands that your body releases when you’re under [stress](#).

“Worse, our brains may produce less serotonin, which can lead to [increased anger](#) and depression,” Shuster says.

## YOUR BODY REACTS TO THE BRAIN

I thought I was weird for sweating like an animal while sitting and watching a football game, but it turns out the response is actually fairly common. Whenever I find myself in a high-pressure scenario, I sweat, and that sweat is usually brought on by [anxiety](#). The physical tends to follow the mental. So it makes sense that my sweat glands would have a similar reaction when I’m at the edge of my seat cheering on my team.

“When you experience anxiety before or during a game, it’s not your imagination,” says [Michael Grabowski](#), Ph.D, professor of communication at Manhattan College who has written on perception, the brain and media. “A few [studies](#) have shown that sports fans can have intense anxiety before a big game, just like the players themselves. This includes both cognitive anxiety and somatic anxiety, like butterflies in the stomach or other physical expressions of anxiety.”

Another thing that can happen to our brains when our teams win is that they are essentially thrown into something called an excitatory state, according to Shuster. “If your team wins on Monday Night Football on the final play, it is close to midnight and you are exhilarated,” he says. “If it was Tuesday and you had to be awake for any other reason, most people would be exhausted.”

This excitatory state comes from the hormone adrenaline, and that exhilaration often shows up in your body’s behavior, according to Dr. Jason D. Hanks, director of anesthesia at [NYC Surgical Associates](#).

“When we get stressed or nervous our brain again sends signals causing the release of adrenaline from the adrenal glands,” says Hanks. “The heart begins to beat faster, blood pressure goes up and blood gets diverted to the most important parts of your body, heart and muscles, as part of the fight-or-flight response. Other less important organs, like the digestive system, close off their blood supply leading to that ‘butterfly’ sensation you experience when you get nervous or anxious.”

According to a recent [study](#) in the Canadian Journal of Cardiology, spectators of a professional hockey game saw significantly elevated heart rates, equivalent to the rates associated with vigorous exercise. It’s certainly not a stretch to assume the same can happen during a football game, and Shuster confirms that yes, watching football can increase your heart rate to levels similar to those reached when working out.

This, in combination with increased stress, may not be a big deal to someone who is young and healthy, but Shuster warns that a fan who is older or [significantly overweight](#) may actually be at an increased risk of suffering a stroke or heart attack during a big game.

**Questions (Will be Graded for analysis)**

- 1) What are Mirror Neurons?
- 2) Can watching sports take the place of exercising? Why?
- 3) Is there dangers to your body by watching sports? Why?
- 4) Why do games affect our moods? (The sciency answers)