

# Some tennis players turn to VR as 'game changer' when they're off court

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Jennifer Brady, the 2021 Australian Open finalist and top-15 player in the world, has not been able to play a competitive match in more than 14 months due to a significant foot injury.

But when Brady puts on her [virtual reality headset](#) and taps into a new platform built by Sense Arena, she is transported to a familiar place: A big stadium with loud fans and [tennis](#) balls being hit at her.

"It has allowed me to be able to submerge myself back in the tennis world and swing the racquet without hindering my rehab process," Brady told U.S. TODAY Sports. "It has been hugely beneficial and it can only help me in terms of returning back to play sooner than what I'd hope for."

Brady, who plans to return to the tour next year, knows that virtual tennis can't replace real practice and the physical act of hitting a ball. She also knows there aren't any shortcuts to get back into the top-15 after more than a year on the sidelines. But in a sport where the margins are painfully small, players are constantly looking for new ways to get an edge in their preparation.

In recent years, top players and coaches have embraced analytics to learn more about patterns and tendencies. Now, [virtual reality](#) could be the next frontier in tennis training, encompassing everything from teaching beginners basic skills to helping elite professionals prepare for matches or stay sharp during an injury.

"It was pretty eye-opening when they came to me and we tried it for the first time," said Jack Sock, a four-time Grand Slam winner in doubles. "I think it's a game changer."

Sock and Brady are two of the seven tennis pros who have signed on to use and promote Sense Arena, a company based in the Czech Republic that launched a VR platform for hockey in 2018 and has since been adopted by several NHL and NCAA teams.

Tennis, said Sense Arena CEO and founder Bob Tevita, was an obvious

choice for the second sport to delve into. Like hockey, it has deep roots in the Czech Republic's sports culture and notably signed Czech-born legend Martina Navratilova as its global ambassador well before the product's official launch this week.

But also, the development of a virtual tennis platform was a natural evolution as both sports involve swinging a piece of equipment and put a premium on using the geometry of the playing surface. Though it does not pretend to replace on-court training, Tevita said, the amount of variables, drills and game situations that the VR platform offers can benefit them in a variety of ways from staying sharp on off days to preparing for specific match situations.

"It's not just replacing or remaking the same environment of the training on court with digital technology," Tevita said. "It's actually enhancing that to the next level and the next level for us in the part of the training that has been historically neglected and that's the mental part."

## **So how does it work?**

Paired with a MetaQuest 2 VR headset, Sense Arena has developed a haptic tennis racquet that replicates the grip and swing weight of a regular racquet. Once users are in the platform, players can choose a variety of drills and variables to simulate certain conditions they might face in a real match whether it's a rowdy crowd or a court that is shaded on one side.

If a pro has a match against a big server the next day, perhaps they might want to work on their reaction time to a ball coming at them. Or if they're playing somebody who comes to the net a lot, there's a passing shot drill to get a little more feel for how to handle approach shots coming in at varying speeds and areas of the court.

"You can put yourself in different situations," Brady said. "You can do tennis specific stuff or non-tennis specific stuff in terms of working on reaction speed, anticipation, cognitive skills, even solving little equations with your brain improving focus.

"I think it's very realistic visually, and the racquet feels like a real tennis racquet. It helps players with different skills in terms of anticipation and seeing visually just the ball rotation, what types of speeds are coming at you, slice, topspin, flat balls. It's very immersive."

With the season ending for Sock later this month at the Davis Cup Finals, where he'll be the top doubles player for the American team, he is planning to incorporate the device into his training regimen to get ready for 2023. Next year, he plans on bringing it with him to tournaments to use for half an hour or so a day.

"One of my favorite things in there is the mental stuff where you're hitting the ball to a certain spot and a number comes up that you have to remember," he said. "There are some brain teasers in a competitive environment and really cool drills you can do that will be nice to do on days off or going into a match the night before so you feel like you're on top of it."

Though the platform is going to continue to evolve and improve, its potential is intriguing as players try to find just a few percentage points of an advantage on the margins. After all, tennis matches at the highest level are usually decided by just a handful of points, and those points are decided by inches.

As technology becomes more and more a part of how athletes understand their own games and how their opponents play, being able to simulate certain situations in the VR platform or just have an outlet to deal with pre-match anxiety could be a real benefit for some players.

"You can use it for a warmup just to speed up your brain," Teveta said. "Tennis is about speedy decisions. The pros love this for recreating the game patterns, and we'll be adding other features like plugging in real data from real matches so they can get ready for a typical type of opponent. There's a huge variety of use cases and we are just at the beginning of the whole journey."

And for Brady, the hope is that it can be one aspect of relaunching her career once she's physically able to get back on court. Coming out of the COVID-19 pandemic, Brady's career was on a rocket ship from outside the top-50 to becoming one of the best hard court players in the world. But after making the semifinals at the 2020 U.S. Open and the subsequent Australian final, losing both to Naomi Osaka, she got derailed by a litany of injuries involving her foot and knee.

As she manages her body during what Brady hopes is a successful comeback next year, she's hoping the mental reps she accumulates through Sense Arena will help speed up the process of getting comfortable again in match situations.

"Even 20, 30 minutes a day is huge mentally," she said. "Physically the sport has changed so much and everybody is a physical specimen right now and any little bit of mental edge that you have over someone is huge. Submersing myself in this and not having to deal with the physical load on my body is important."

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