Chris Perkins: Tua Tagovailoa's real risk of more concussions depends on who you ask

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The Dolphins have said that quarterback Tua Tagovailoa isn't more prone to concussions than any other player.

You might question their motive, but medically, it's tough to find fault with their position.

It turns out, it's a confusing topic.

Four neurological experts told me that Tagovailoa, who sustained two concussions last season and one in college, is more prone to concussions because of his concussion history.

"Research does show," said Dr. Nsini Umoh, program director overseeing Traumatic Brain Injury research at the National Institutes of Health/National Institute of Neurological Disorders and Stroke, "that someone who has already sustained a concussion is at increased risk for additional concussions."

That's contrary to the Dolphins' view of the situation, a view that's central to the organization's decision to name the 24-year-old Tagovailoa as its starting guarterback for 2023.

Tagovailoa, the Dolphins' 2020 first-round pick and best hope to lead them to a Super Bowl, had an impressive, but concussion-shortened 2022 season with 25 touchdowns, eight interceptions and a league-leading 105.5 passer rating.

Here's the confusing part of the whole concussion deal: there's no medically definitive answer on whether having a concussion makes someone more prone to concussions or puts them at higher risk for a concussion.

I reached out to 10 neurologists and/or neurological organizations. Four opted to speak. They were all in agreement Tagovailoa is at higher risk for concussions.

However, research on the topic is mixed. You can find studies that take either side.

To a large extent, it seems you choose what to believe when it comes to players being more prone to concussions after they've had one or two concussions.

So it's hard to fault the Dolphins for believing their medical advisors.

"I think from what our doctors and the consultants we've talked to through the [National Football League Players Association], that is not a true statement," Dolphins general manager Chris Grier said about Tagovailoa being more susceptible to concussions because of his concussion history.

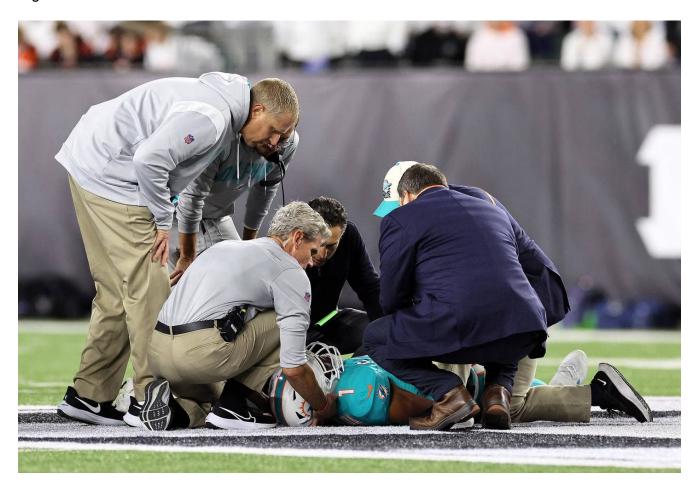
"So for us, I don't think he's any more prone than anyone else."

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Beyond that, the experts I spoke with said they've seen studies that agree with the Dolphins, that having a concussion doesn't make a player more prone to concussions.

"Research, sometimes there's a bias," said Dr. Elizabeth Sandel, a physiatrist and brain injury medicine physician, Concussion Alliance expert advisory board member and author of "Shaken Brain: The Science, Care, and Treatment of Concussion."

"I don't want to say there is in these particular studies, but just in general, follow the money, I think, is one way of putting it."



Medical staff tend to Miami Dolphins quarterback Tua Tagovailoa after an injury during the second quarter against the Cincinnati Bengals at Paycor Stadium on Sept. 29, 2022, in Cincinnati. (Andy Lyons/Getty Images North America/TNS)

We know finding a divergent medical opinion is relatively easy whether you're talking about concussions, COVID-19 or many other ailments.

And although you could argue there's no final word on this concussion susceptibility topic, the experts who responded to my inquiry think Tagovailoa is at higher risk for concussions.

"In general," said Dr. Chris Nowinski, co-founder and CEO of the Concussion Legacy Foundation, "the more concussions you've had it trends towards longer recovery and potentially [it] can get easier to get concussions."

None of the experts who spoke has examined Tagovailoa. None work with or for the NFL. And they all noted each person's situation is different.

With that in mind, some said the situation with Tagovailoa goes beyond just getting concussions.

Dr. Julie Stamm, a member of the Concussion Alliance expert advisory board, clinical assistant professor in the Department of Kinesiology at the University of Wisconsin-Madison, and author of "The Brain on Youth Sports: The Science, The Myths and The Future," said there are two pieces at work here.

"There is a lot of evidence that suggests that having a prior concussion increases the risk for another, or people who have a history of concussion are at greater risk of having another concussion," she said.

"And then the other piece is the amount of time in between."

Stamm said "there's a lot of evidence" that shows even though a person thinks they've recovered from a concussion, the brain hasn't actually healed.

"So there's evidence that if you go back too quickly, that your risk of concussion is higher after having sustained a concussion," Stamm said. "And we don't really know exactly when that brain has truly healed.

"So that's something we're studying more and more."

Umoh said a lot of people recover from a concussion "within just a couple of weeks. But again, it's definitely on an individual basis."

Nowinski, who has been outspoken on this topic in traditional media and social media, suspects Tagovailoa's concussion at Cincinnati, the one that caused him to leave the field on a stretcher and be hospitalized briefly, was partly caused because he hadn't recovered from the suspected head trauma incident the previous week against Buffalo, an incident Nowinski called a concussion.

"The subsequent concussions...it's most likely that they happened because he's never fully recovered from the first," Nowinski said, referring to the Buffalo game as the first concussion.

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Sandel said another issue with concussion recovery is it's symptom-based, meaning when a player stops reporting symptoms, whether or not they've dissipated, they're considered on the road to recovery.

"Athletes don't always report their symptoms, so symptom resolution may not actually be totally symptom resolution because it's [the athlete's] report," Sandel said. "And there are imaging studies that show that the brain actually is not completely recovered even after symptoms resolve."

For the record, Tagovailoa's parents recently told a Hawaii television station their son would definitely play in 2023. So there's no chance he retires in the offseason. He'll be the Dolphins' starter next season. His parents

also said he was still in concussion protocol.

The question is whether Tagovailoa, the Dolphins, or both are putting themselves at an increased risk.

There's a lot at stake in determining whether Tagovailoa is more prone to concussions.

The upcoming 2023 season will be Tagovailoa's fourth year, the final year of his rookie contract. The Dolphins must decide by May 1 whether to lock in Tagovailoa's fifth-year option, which would cost about \$22 million.

The Dolphins seem committed to their point of view that Tagovailoa isn't prone to more concussions because of his past, and some studies are on their side.

"But the majority of research out there, if you take it all together," Stamm said, "would suggest that there's an increased risk for another concussion with that kind of lifetime history."