

SECOND IMPACT SPORTS CONCUSSION**Janine Whittemore's Story**

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Above (left to right): Vivian Ma (Janine's partner), Leo (Janine's son) and Janine

Sports concussions or head injuries that go undiagnosed put athletes at great risk. Unfortunately, many athletes, coaches and family members are unaware of just how devastating second impact head injuries can be. Following a concussion, especially repeated or successive concussions, athletes may experience various symptoms, which can last for days, weeks, months or even longer. Some have long-term effects that never disappear. Generally these problems include disruptions in thinking, a reduced sense of well-being, and mood swings. Survivors can suffer from chronic headaches, memory loss, a lack of concentration, reduced attention span, fatigue, dizziness, anxiety, depression and irritability.

Janine Whittemore incurred two head injuries within days while playing college volleyball. She was in her senior year (1990) at Hope College, co-captain of the Hope College Volleyball Team and led her team in attack percentage (.310) and blocks (she had 96—the second-leading blocker had 55). She was part of the MIAA Academic Honor Roll (1990-1991) and was one of Hope College's All-time, All-MIAA Volleyball Honorees in 1990.

This is Janine's story...

Hello Janine, thanks for talking with me about your volleyball concussion. Would you tell us about your initial accident and when it occurred?

It was my senior year during the fall of 1990. We were playing a game against Alma College, and we were ahead, so they put in a freshman setter. The ball was about to drop, and nobody was coming, so

I dove to block the ball. I didn't know that another teammate was also diving for the ball, and her elbow hit my head. Then my head hit the floor of the gym. I incurred a double impact (coup-contre coup) head injury.

I was knocked out, but it was only for about five seconds. The play ended, and everyone moved back to take their positions. I got up on my own and went back to my position. It felt like things were moving, but nothing was in focus. They served the ball at me, and I couldn't track it.

Did anybody notice that you had injured yourself?

I told everyone I was fine. But I realized I wasn't okay when the ball was served and I couldn't follow it. I couldn't do what I normally could do. It happened to be the only time our assigned team trainer wasn't at the game. Instead, we had a freshman trainer. I actually took myself out of the game when the bump on my head started growing so big that I could look up and see it myself. I went to bed that night, woke up the next day and never received medical attention.

According to Dr. Micky Collins, a concussion injury research expert, the person you rely on to catch concussions is not the coach or parents, it's the trainer. This idea is illustrated perfectly by your accident, because your assigned trainer would have noticed you weren't yourself.

That is exactly right. If we had our regular trainer during that game, the trainer would have done something. The trainer

who is usually with the team watches you play and knows your personality. He or she is part of the team and attends practices and games. My job as an athlete was to play, and I would have played regardless of the circumstances because that is what I was trained to do. The coach is focused on winning the game, so it is going to be the trainer who is looking out for the athlete's well being.

Could you tell us how you received your second head injury?

The initial accident was on a Tuesday. On Wednesday, we had a very light practice, and I made it through. No one noticed anything was wrong, but I had been nauseous all day. However, that was not completely out of character for me, because I sometimes had performance anxiety. I played in the game on Thursday, and my timing was off—nothing was clicking. I was not doing well.

During the Thursday game, I ran into another player while going up for a block. As the captain, I checked on that player after the game, and she was not doing well. Our regular trainer was there, and he sent her for medical attention. Because the focus was on her, nobody focused on me. However, soon after that incident, the head trainer called me into his office.

Did you prompt the meeting with him?

He prompted it because the second incident was out of character for me, and I wasn't playing up to par. He said he wanted me to see a neurologist, so I went with the trainer that was there during my original incident. The neurologist did

many tests, and I thought I did fine, but my trainer knew I had failed the testing. The neurologist came back and told me I was done with volleyball.

You are lucky that a doctor told you that you could not play volleyball. Once you were injured, you weren't the same person, and you were vulnerable. When it comes to contact sports, second injuries can easily occur. When someone is dazed and confused due to an initial concussion, they don't have the cognitive ability to say, "Hey, that guy is about to hit me."

Exactly. It's basically putting a high school player on a college field or a college player on a professional field. All of a sudden, you're not playing at the same caliber.

Currently, there is a national trend to provide baseline testing for young athletes at risk for concussion. Baseline tests are performed prior to injury and provide valuable information to help later determine when the player is ready to return to play, as well as if he/she is in need of treatment. Baseline screening

includes noninvasive tests that measure attention and memory. It's objective. If the player can't pass, he or she cannot return to play until they recover.

Today the protocol is based on scientific evidence. People need to be educated about available programs and schools need to participate so kids don't get injured like you did.

Will you tell us what was the hardest part of your recovery, and do you feel you have fully recovered from your head injuries?

It took a full year after the injury for my physical symptoms to subside. I have not recovered 100%—16 years later I still have some long-term problems with vocabulary and memory.

The hardest part about all this is, because you don't have a broken arm, because your ankle isn't purple, because you don't have any physical signs that you're hurt, no one really understands that you are injured. I had trouble concentrating. When I got my scores back from my neuropsychological tests, the speech pathologist gave me a recommendation to drop out of school. I finally went to a doctor who specializes in concussions, and I felt this man was an

angel. He knew how I was feeling without my even telling him. It was amazing that someone finally understood what I was going through.

Did you take the advice of the speech pathologist and drop out of school?

No, I stayed and graduated in December of 1991, but I had to take a light class load—nothing taxing. I took the GRE (*Graduate Record Examination*) because I wanted to get my masters degree. My test scores were low, so I took it twice. The first time was a year and a half after my head injury, and the second time was three years later. The difference in the scores was quite stunning. It's the only true follow-up data I have on my recovery.

We have learned more in the last five years than we did in the first fifty years of studying concussions. Hopefully, programs that provide athletes with baseline neuropsychological testing will become widespread and will help protect today's athletes. I also hope that your story will inspire others to follow suggested return to play guidelines for all sports. ♦

