During Anna Cassell’s career playing women’s soccer at Northwestern University, she suffered three concussions in 15 months.

At first, her third concussion didn’t seem as severe as the earlier injuries, she said. But the symptoms lasted much longer. She spent eight months redshirting, trying to recover. The headaches and dizziness didn’t completely go away for a year. She suffered from depression and anxiety. As a junior in college, she decided to walk away from the sport.

“I was told by multiple physicians that I was in a gray area,” Cassell said. “They said it wasn’t clear-cut whether I should retire or not. Ultimately, it came down to the fact that I wanted to go to medical school. It was a heartbreaking decision, but getting another concussion and having to recover from that was not worth it to me.”

The exact long-term effects of concussions are still being discovered and debated, but the consensus is that the head injuries can cause lasting damage. While hard data on the number of players leaving athletics due to concussions are difficult to come by, medical and athletics professionals say an increasing number of them are deciding that whatever the long-term risks of concussions are, they’re too costly.

And so some players are choosing to cut short their promising careers in sports in an attempt to avoid further injury.

“Football was my life,” said Spenser Rositano, a former Boston College football player who left the sport in 2013 after suffering six concussions. “But I decided I want to have a family and I want to be there for my family when I get older. I decided that I need my brain.”

Early Retirement
Over the past academic year, at least seven high-profile college players have retired from their sports due to concussion concerns.

In September, David Ash, a starting quarterback at the University of Texas at Austin, stepped away from football after suffering from a concussion’s effects for a year. That same month, Casey Cochran, a sophomore at University of Connecticut, retired after being injured in his first game as starting quarterback, citing the effects of multiple concussions. West Virginia University quarterback Clint Trickett retired from playing football in December after suffering five concussions in 14 months. In January, Kendall Griffin, a basketball player at Wright State University, also retired following five concussions in two seasons.

In March, Washington State University’s Nicole Setterlund announced she would retire from playing soccer due to concussions. She was a first-round draft pick and was set to play for a professional women’s team. A few weeks later, Jack Miller, an offensive lineman at the University of Michigan, made the same call.

The following month, so did Tyler Henderson, a running back at Wake Forest University.
“I’ve had a concussion for almost seven months now, and after lots of praying and talking to numerous doctors and loved ones, I have decided to retire from the game I love and that brings me so much joy,” Henderson said in a post on Instagram. “It is such a hard thing to do, but it’s what’s best for my future and my health.”

Chris Koutures, a sports medicine specialist who treats many athletes in contact sports and is a team doctor for the USA volleyball team, said he’s pleased that an increasing number of college athletes are heeding advice to retire after serious head injuries. Many athletes, however, are still hesitant to do so, he said.

Underreporting makes it difficult to know just how many concussions occur in college athletics each year, but the number is in the thousands. Few of those players will make the choice to retire. Giving up something they’ve spent most of their life working toward is a difficult choice to make, players said, and there’s a stigma attached to quitting. “There is this feeling like you’re going to let your team, or even your family, down,” Rositano, the former Boston football player (below, from Getty Images), said.

Koutures said he frequently offers athletes a way out of that pressure by saying the player can advertise his or her retirement as “doctor’s orders.”

“If it comes down to it, I tell them that they can tell the coach, the media, the team, that it was me in particular who made the decision,” he said. “If that helps them, I will do it. That way they aren’t perceived as giving up.”

Some sports medicine experts and college athlete advocates have suggested that colleges or the NCAA create a three-strike rule of sorts that would force students to leave a sport after a certain number of concussions. The NCAA and several college athletics conferences have recently created new guidelines in an attempt to decrease the number of sports-related head injuries. The new guidelines don’t set a cap on the number of concussions a player can suffer from and still play, but they do urge colleges to set clear protocols for a player's gradual return to competition and practice.

Koutures said that there’s no set number for determining when an athlete has suffered too many concussions.

“The reality is that it’s individualized,” he said. “For some, just one is too many. For others, they might recover quickly from four concussions and are willing to accept the risk and go on to be fairly fine. We can’t predict 20, 30 years down the road what the effects will be. Until we have quantitative science that tells us that, it’s hard to put a number on it.”

Eight Concussions

The first time Molly Poletto, a former University of Utah soccer player, got a concussion, the injury was unrelated to sports. It was 2003, and she was watching her brother at a local skate park when another skater slipped off a ramp and came down on her head, knocking her unconscious. At the hospital, Poletto later said, she couldn’t recognize her mother.

It was the only time she was ever knocked out, but it was not the last time she would be concussed.

Five years later, Poletto, by then a promising high school soccer player gaining national attention for her goalkeeping abilities, took a bad dive and hit her head while at a soccer camp. She tried to play through the pain for days until a trainer realized Poletto was hiding a concussion. A couple of years later, she was hit in the head while playing at a recruiting camp. The pain lasted for months.
In 2011, Poletto was playing in an indoor soccer club when a ball, again, struck her in the head. By this point, Poletto said, she was educated enough to know not to rush back into play after a head injury. But with only 20 minutes left in the practice, she decided to push through and let herself rest after.

Minutes later, another ball hit a support beam on the goal behind her and ricocheted into the back of her skull. On the way home, Poletto said, she couldn’t stop crying. She said she was “an emotional wreck,” but wasn’t sure why. A doctor later told her she had received two concussions in 20 minutes.

Later that year, Poletto joined the University of Utah’s women’s soccer team on a full scholarship -- a stepping stone she hoped would lead to playing soccer professionally. During her second week of two-a-day practices at Utah, she caught a ball on her chin, giving her whiplash and a mild concussion.

For the first time in seven concussions, however, Poletto finally gave herself time to heal. Nearly four weeks later, feeling well rested and clearheaded, she returned to goalkeeping training. Poletto rolled a ball out to a coach, who kicked it back to her. The ball came in too high. She didn’t have time to react.

“It nailed me in the side of the head,” Poletto said. “That was my last one.”

Speech and vision therapy followed, and then counseling. Poletto withdrew from two classes; her short-term memory was shot. Months later, she still couldn’t walk on a treadmill at an incline. Her doctors and her family said they weren’t comfortable with her playing soccer again, but Poletto continued to train and go to therapy, hoping to get back out on the pitch.

Then a trainer told her that if she took another bad hit, she could be “a vegetable.” Poletto retired. “Eight was the concussion that ended my career,” she said.

Poletto is one of at least four high-profile women’s soccer players -- including Anna Cassell -- from that time who started their college careers to much fanfare, only to leave the sport before graduation due to concussions. Cassell said her decision paid off. She is headed to the University of Cambridge next year to earn a master’s degree in primary care research, and then to medical school.

Poletto, too, said she has grown to enjoy her new life off the field. She is now a member of the women’s soccer coaching staff at Utah and for a national soccer league, where she encourages players to honest and up front about their head injuries. Both women were able to stay in college on medical hardship scholarships given to injured athletes.

“Eventually you just have to cope with that you shouldn’t continue playing,” Poletto said. “It was brutally hard. I knew eventually I would have to retire, but I thought it wouldn’t be for years and years and years. Growing up, that’s who I was: this great soccer player. Soccer was everything. And then it was just yanked away.”