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Experts link Rice's injuries 49ers say there's no connection; surgeons suggest otherwise

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Jerry Rice's season ended for the second time Tuesday when the 49ers star underwent surgery to repair a broken kneecap. And the stunning turnabout - from his dramatic Monday night comeback against the Denver Broncos to the news that he was seriously re-injured while making the touchdown catch that punctuated his return - led to a major question:

Did Rice's unprecedented 3 1/2 month recovery from reconstructive knee surgery contribute to the latest injury? 49ers Coach Steve Mariucci said the team's physician told him it didn't. And Rice echoed that thought.

But several orthopedic surgeons who are experts on knee surgery said it most likely did.

A broken kneecap, or patella, is acknowledged in the surgical community as a complication of reconstructive knee surgery that had kept Rice on the sideline. In rebuilding the key knee ligament - the anterior cruciate - that Rice tore in the season opener, a small piece of bone is removed from the kneecap to help with the graft for the reconstructed ligament. That leaves the kneecap weakened for at least several months, surgeons said.

All said they didn't want to criticize 49ers team doctor Michael Dillingham or San Diego Chargers physician Gary Losse, both of whom medically cleared Rice to play. If the athlete is able to run and jump without pain in the knee, it's hard to tell if it's too early to return to action, the outside experts said.

"It looked like his cruciate ligament held up, but another component of the process failed," said Dr. Eugene Berg, a New Hampshire surgeon who has published research on kneecap fractures associated with reconstructive surgery. "In a way these (professional athletes) are the proving grounds for surgical procedures; how long it will take to recover, how quickly can you come back?"

Although broken kneecaps occur in only about 1 percent of reconstructive knee surgery cases, surgeons stressed that Rice's return to a sport like pro football in half the normal recovery time is far from normal.

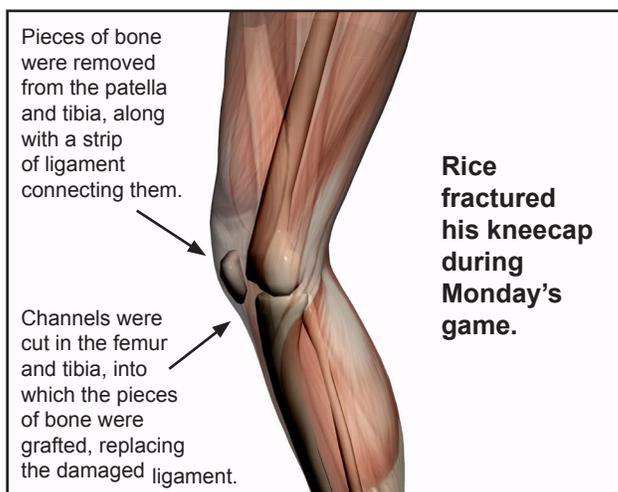
Rice was 'pushing it'

"Bone is an interesting tissue in that it will fortify itself to overcome the weak area, but that requires time. Three months, with the magnitude of stresses (Rice) puts on his knee in professional athletics ... was really pushing it," Berg said. "There is a certain inexorable healing process that occurs that nobody can accelerate."

Dr. James Tasto, the team doctor for the U.S. Olympic soccer and volleyball teams, said Rice's recovery time pushed the envelope.

"He's got a new record," Tasto said. "Unfortunately, the envelope broke."

49ers policy forbids Dillingham from answering questions from the media. He performed surgery on Rice at



Weak in the knee? Jerry Rice had anterior cruciate ligament (ACL) reconstruction surgery. Some surgeons say that the procedure, which involves removing a piece of the kneecap (patella), may have weakened it, possibly contributing to its fracture.

Stamford Hospital on ‘Tuesday afternoon to repair the broken kneecap, then the Lean issued a short statement front him that did not address whether the first knee surgery played a role in the second injury.

“GUI structural damage too Jerry’s knee that was previously operated on was in great shape. The patella fracture was in good position and fixed with screws,” the statement read. Rice is out for the season but is expected to stake a full recovery for 1998.

Earlier in the day at the 49ers’ Santa Clara training facility, Mariucci was more definitive when asked if the new injury was related to the old one.

“I’ve asked that. We’ve discussed that. And the answer that I get is no,” he said. “It seems unrelated because of the type of fracture. It’s not involved in the place where the bone graft came from, and the way the fracture is ... it’s very, very, very unlikely that it had anything to do with the surgery because if it was going to give, it would give in a different direction. So it was purely coincidental as it’s explained to me.”

Rice delivered the same message.

“It has nothing to do with the injury,” Rice told KGO-TV, referring to his first surgery. “It’s just one of those unfortunate things. It comes along with the game of football. I’ll be back. I’m not worried about that. I’ll be back and stronger.”

Berg, however, pointed out that the type of fracture that Rice sustained - lengthwise across the kneecap - is the more common form of kneecap fracture, and the one that usually occurs within a few months after reconstructive knee surgery.

He said that he would be very surprised if the fracture did not go through the spot where bone was scooped out of Rice’s kneecap.

Even if the fracture didn’t intersect with that spot, the second injury could have been connected to the first, said Dr. Freddie Fu, team physician for the University of Pittsburgh and medical director of the school’s Center for Sports Medicine.

Just removing a bit of bone for the graft weakens the whole kneecap, making it more susceptible to fracture within the first several months, said Fu, who was watching Monday night’s game and immediately thought kneecap fracture when Rice was slow to get tip after his touchdown catch..

“It’s like a tiny crack in your house where problems can occur,” said Fu, who has performed about 2,500 reconstructive knee surgeries and is the editor of a textbook on the procedure. “You take a piece of bone out, the area’s not as strong. You hit it, bang! It’s going to fracture.”

The first procedure

A section of the tendon covering the kneecap is used to reconstruct the anterior cruciate ligament. The tendon is attached to the kneecap and the shin. To get the tendon off, a piece of bone about half the size of a postage stamp and a quarter-inch deep, is scooped out of the front of the kneecap. Another piece of bone about the same size is taken out of the shin.

Then two holes are drilled in the thigh bone and shin bone near the anterior cruciate ligament, and the tendon is threaded through, the small pieces of kneecap and shin bone used as plugs in the drilled holes and secured by small screws. Over time, the bones graft together, securing the tendon in the role that the ligament used to play to stabilize the knee.

But the kneecap is left weakened until bone grows back to fill the small channel scooped out of it. Exactly how long it takes for the patella to return to its original strength is unknown.

“If you go back too fast, it does compromise the integrity of the patella,” said **Dr. Jacob Rozbruch**, former chief of orthopedic surgery at Beth Israel Medical Center-North Division in New York City. “The patella would still be somewhat fragile.”