

## Michael Schumacher's accident aggravated by GoPro Camera



Formula 1 racer **Michael Schumacher** was skiing with his 14 year-old son and a small group of friends at Meribel in the French Alps on December 29, 2013, when he lost his balance and fell, slamming his head into a rock with such force that it split the helmet he was wearing. Schumacher lost control after hitting a boulder which had been concealed by snow that had fallen the night before and was 'catapulted' headfirst into three other rocks.

Schumacher suffered critical brain injuries and was hospitalized in Grenoble, France. He was held in a medically-induced coma for six months. An initial operation carried out to reduce swelling was followed by a second to remove the largest of a number of clots in his brain.

Family members have told the media that the driving legend is "waking up very slowly" in a medical suite installed in his home in Switzerland.

Formula 1 commentator Jean-Louis Moncet told a French radio station that "The problem for Michael was not the hit, but the mounting of the Go-Pro camera that he had on his helmet that injured his brain," Moncet said on the show.

Investigators believe the camera mount may have caused his helmet to shatter on impact. Experts from ENSA, the world-renowned ski and climbing academy in the French ski resort of Chamonix, conducted tests on whether the camera weakened the helmet on impact. According to the Telegraph:

"The helmet completely broke. It was in at least two parts. ENSA analyzed the piece of the helmet to check the material, and all was OK," said a source close to the investigation.

"But why did it explode on impact? Here the camera comes into question. The laboratory has been testing to see if the camera weakened the structure."

GoPro manufactures small, wide-angle cameras that can be mounted on a helmet, on the chest, or on a bicycle handle-bar. The company went public just recently, and initially their stock price soared. But after the news that the camera mount may have had a role in the severity of this accident, GoPro stock shares dropped by about 10%.

Investigators have had a chance to review footage from the helmet camera that Michael Schumacher's family handed over last week, and they say that while the former Formula One racer was indeed skiing off course – or off-piste – speed was not a significant factor in the crash.

Investigators have also ruled out problems with Schumacher's skis, the trails, or signage as culprits in the accident.

Prosecutor Patrick Quincy said, “He followed the red piste [main path] and he went off piste. He is evidently an extremely good skier, but one of his skis hit a rock that was sticking out of the piste, and it caused him to fall and he hit his head on a rock. The rock that he hit is 8 meters from the piste. His position after he fell was 9 meters from the piste.

“We examined the film that was realized from his helmet. This film is perfectly clear and gives us a lot of information, and it confirms all the information that we already had. We used this film to do a reconstruction of the accident.”

Investigators were able to view the footage, and from the two minutes worth of images determined that Schumacher landed about 30 feet off the marked trail after his crash. Although they declined to estimate Schumacher’s exact speed, Lieutenant Colonel Benoit Vinneman insisted that “His pace was completely normal for a skilled skier”.

Photos and videos of the accident site can be seen at: <http://youtu.be/BB5UoviP2ms>

Here is a close up look at the accident site and the rocks he hit.



The accident happened at Meribel, in the French Alps.

The helmet mounted GoPro camera acted as a lever, thus increasing the amount of force exerted on the helmet.

“Give me a lever long enough, and a fulcrum on which to place it, and I can move the Earth” said the Greek thinker Archimedes, expressing a universal truth in the physical world that the force exerted on an object at one end of a lever increases proportionally to the lever’s length on the other side of the fulcrum.

In other words, the more solid objects you have sticking out of your helmet and the longer they are, the more danger there is that an accident will exert a tremendous amount of force on your helmet.

In this case, it seems the force applied from the camera hitting a rock shattered the helmet. In other situations, when skiing among trees, the camera might potentially get snagged by a tree branch and the leverage exerted could twist a person's neck.