Written by Arizona Foothills Magazine

"Some of my friends say I like to live on the edge. I think I've walked about as close to the edge as you can get without going over."



Damir shows off his specially equipped vehicle to his physician - and friend - Jon Hott.

Damir Tursanovic, 29, is a sturdy, good-looking young man with a quick mind and a wry sense of humor. To look at him, you might not guess he's come close to death – more than once. But his friends are right – he's walked very close to the edge.

His first brush with death was as a young teenager in the early 1990s, when he and his family survived the horror of war in Bosnia, when hundreds of thousands were killed. Damir and his family not only survived, but found a way out of the region still torn by ethnic division and made it to the United States.

Five years ago, Damir walked the edge again. On a sunny March day, he and two friends were riding their motorcycles back to Phoenix from Lake Pleasant. Traveling about 70 miles an hour on a two-lane highway with excellent road conditions just west of Interstate 17, Damir's bike went into a skid.

He laid the bike down well but his tires hit a post, flipping the bike one way and Damir another. He sailed through some cactus and the low branches of a Palo Verde tree, stopping when his head hit a rock. He was not wearing a helmet.

Paramedics rushed to the scene. They took Damir to the Level I Trauma Center at John C. Lincoln North Mountain Hospital. On arrival, he was showing a Glasgow Coma Score (GCS) of four. GCS rates traumatic brain injury: a score of fifteen is normal and three is the worst. At four, Damir was very close to death.

His initial CAT scan showed a significantly depressed fracture on the right side of his skull and a blood clot, an epidural hematoma, between his skull bone and brain. More than 15 percent of epidural hematomas are fatal. Jonathan Hott, MD, a skilled trauma neurosurgeon at North Mountain, was called in to handle Damir's case.



Dr. Hott with a CT scan taken of Damir after a sizeable section of his skull was removed to prevent brain swelling from damaging his brain stem.

"It was a very severe, traumatic brain injury," Dr. Hott says. "When the CT scan showed bleeding on the surface of the brain and in the brain stem, and a skull fracture –neurologically, he was doing very badly."

The doctor knew that even if Damir recovered, getting back to anything like a normal life could take years, and might not happen at all.

What Damir did have going for him were his age and physical condition, and a fighting spirit. Also in his favor was that he had received medical help very quickly.

"So it made sense to be as aggressive as possible in treatment," Dr. Hott said. "But when you have these bad head injuries with bleeding and swelling, it changes every day. You have to take it one step at a time."

The doctor's first step was to take Damir into surgery, remove the fractured bone that was pushing on his brain and replace it temporarily with titanium mesh. Dr. Hott also removed the blood clot, easing more pressure on the brain. But as Dr. Hott points out, with severe head injuries, things tend to get worse before they get better.

It wasn't surprising that Damir's bleeding and swelling in his brain got worse, Dr. Hott noted. "When that swelling put too much pressure on his brain, I had to take him back to surgery."

Dr. Hott removed a large portion of Damir's skull to give his brain space to swell outwardly. With the skull intact, swelling would press on the brain stem, which controls breathing. "Compressing the brain stem can be deadly," Dr. Hott said.

"I have been told I was in a coma for four months," Damir says. "Dr. Hott told me he did everything he could do, but they weren't sure I would come out of it.

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Damir slowly climbed the GCS scale, but for weeks in the Intensive Care Unit, he did not regain consciousness. His clinical condition, however, had stabilized and his CT scan showed he had improved enough to be discharged to a rehab facility.

"He hadn't improved to the degree I would have liked," Dr. Hott said, "but right before he was discharged – during the last 24 hours that he was with us – he began to follow a command. It was intermittent, but he could respond. That gave me a glimmer of hope that the door was open to make real improvement over time."

But there was another twist to Damir's story. Just as he was recovering from his severe head injury and multiple surgeries enough to reach the point where there was some light shining at the end of the tunnel, he had another brush with death.

In the rehab facility, he acquired *Clostridium difficile*, a bacteria that caused a debilitating infection of his colon that led to pneumonia and cascading organ failure. His lungs, kidneys and liver all started to shut down.

"His chances of surviving an infection like that on top of the head injury were not great," Dr. Hott said. Damir was transferred back to North Mountain, arriving in a comatose state, again unable to follow commands.

However, during that second hospital stay, Damir's brain swelling finally began to subside. For months he'd lived without a large section of his skull, his brain shielded by a protective helmet. In yet another surgery, Dr. Hott was able to reconstruct his skull.

"Damir ultimately made an excellent recovery, which was no easy trick," Dr. Hott reported. The surgeon credits John C. Lincoln's patient care and "top-tier trauma program."

Similarly, Damir is convinced that excellent care and his family support made the difference. "When it comes to Dr. Hott, I rate him five stars. I consider what happened with my care at John C. Lincoln to be somewhat miraculous."

"I think he's one of those 'won't take no for an answer' type of people," Dr. Hott concludes. "He looks at everything as a challenge, not a burden. He's tenacious and dedicated, working extremely hard in rehabilitation. Here we are years later and he's still at it. I think that's a big reason why he's been able to come back from the edge and make such progress."

Years after his trauma, doctor and patient still keep in touch. At Damir's request, Dr. Hott has driven out to the rehab facility to watch him work and see his improvement along the way. They talk about what he can achieve, his limitations, his next goal.

"He's very intelligent, articulate guy. A very sharp guy," Dr. Hott said. "He continues to set goals for himself – I think driving was one of the more recent ones."

The relationship finds Dr. Hott relating as a friend and mentor, as much as physician to patient. It's been a long, long road and it's a victory they share.

For more information please visit <u>www.jonathanhottmd.com</u>