



NICKLAUS CHILDREN'S HOSPITAL

A pediatric patient uses a virtual reality headset at Nicklaus Children's Hospital.

IT'S NOT JUST FOR GAMING ANYMORE

How hospitals are using virtual reality technology during treatment

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Virtual reality headsets have applications that go far beyond video games. For example, health care.

A growing number of hospitals are using virtual reality technology to improve patient care, surgical training and simulation, and medical education. In other cases, the technology can be employed in post-operative and rehabilitation care, and the treatment of phobias and post-traumatic stress disorder.

Renowned medical institutions such as the Johns Hopkins Hospital in Baltimore have been experiment-

ing with VR technology for years. Now, that's trickling down to hospitals across the country - including South Florida.

"I think VR is going to eventually touch every part of medicine," said Dr. Warren Selman, a neurosurgeon and chief medical executive at the Marcus Neuroscience Institute, a part of Baptist Health South Florida.

Anxiety reduction and pain management

Plenty of adults dread being admitted to a hospital: Being poked and prodded with needles, confined in claustrophobic MRI machines and prepping to be anesthetized for surgery can be an anxiety-inducing

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Dr. Christina Potter,
Nicklaus Children's Hospital

experience for anyone. Now, imagine how much scarier that can be for children.

Enter virtual reality technology. Dr. Christina Potter started the VR program at Nicklaus Children's Hospital in 2021 in an effort to see if the institution could replicate findings in medical studies that found VR could minimize anxiety and even chronic pain for pediatric patients.

The program began with preparing children (usually between the ages of 6 and 16) for surgical procedures. Patients were equipped with a Meta Oculus headset to immerse themselves in experiences - perhaps a day at the beach or flying through the sky - to distract them from what was to come. And it had amazing outcomes.

"We saw a 50% reduction in anxiety for patients," said Potter, who said the headsets remained on the children until they were sedated and asleep for surgery. "We also saw a huge reduction in parent anxiety because they saw their children were feeling better."

From there, Nicklaus moved on to other use cases, including pain reduction. Using a VR headset has been found to minimize pain tied to needle procedures, chronic pain conditions and even broken bones. Potter recalls a case where an 8-year-old girl came into the hospital with a broken arm. Usually, that would (understandably) be met with plenty of tears.

"The physician put the headset on her and was able to reset the bone,

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