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**New Jersey Health Foundation/The Nicholson Foundation award  
\$50,000 grant to advance a device to promote less traumatic tooth removal**

Antonio Valdevit, PhD, an assistant professor in the Department of Biomedical Engineering, Chemistry and Biological Sciences at Stevens Institute of Technology, has received a \$50,000 Innovation Grant from New Jersey Health Foundation/The Nicholson Foundation to advance research into a medical device that could reduce local trauma and improve outcomes for people requiring tooth extractions, announced James M. Golubieski, president of New Jersey Health Foundation.

The technology can be particularly important for people needing dental implants or for anyone who must avoid the risk of oral bleeding due to underlying medical conditions.

“Tooth extraction has been relatively unchanged for decades,” explained George F. Heinrich, M.D., vice chair and CEO of New Jersey Health Foundation. “With the advent of numbing agents to reduce patient pain, the procedure has undergone little innovation with the exception of instrument refinement. This novel technology employs vibration to loosen and extract teeth while reducing local trauma.”

Dr. Valdevit has identified a mechanism that employs vibratory motion to loosen the tooth with a piezoelectric actuator that can be incorporated into existing instruments currently used in the dental field.

“Current methods of extraction result in significant recovery time due to local trauma,” Dr. Valdevit explains. “And in some cases, neighboring teeth may be subject to damage. Our method of vibratory extraction will reduce or eliminate the need for surgical cutting of soft tissue and significantly reduce the mechanical forces needed to extract the tooth.”

According to Dr. Valdevit, not only is the technology useful for humans, but also for tooth extractions necessary in the veterinary field.

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