

IIT-Hyderabad working on early detection of malfunctioning implants

According to an institute release, early detection of premature failure or malfunctioning prosthetic implants without surgery can help patients avoid reverse surgery



Hyderabad: The Indian Institute of Technology Hyderabad (IIT-Hyd) is working on developing new technologies for bio-compatible implants that will enable early detection of malfunctions through non-invasive monitoring and diagnosis.

According to an institute release, early detection of premature failure or malfunctioning prosthetic implants without surgery can help patients avoid reverse surgery, a remedial measure more expensive and painful than first time surgery.

A huge number of knee, hip and other bone replacements are conducted in India and are done mostly on patients aged above 60 years. While the expected durability of the implant is up to 20 years, early failure is observed and sometimes, even immediate failure of implant is also noticed, the release said. This happens due to the lower hardness of the implant and its reaction with body fluid and organs. The common solution to detect the premature failure of the implant is reverse surgery, which is more expensive and painful than first time surgery.

“IIT Hyderabad Researchers are working towards early detection of malfunctioning implant without surgery, which can solve this problem. For this purpose, a bio-compatible implant with sensing property and high hardness will be the best choice,” it said. IIT Hyderabad Researchers work has recently been published in the Journal of American Ceramic Society, the release said.

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