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IIT-D engineers design low cost prosthetic knee joint

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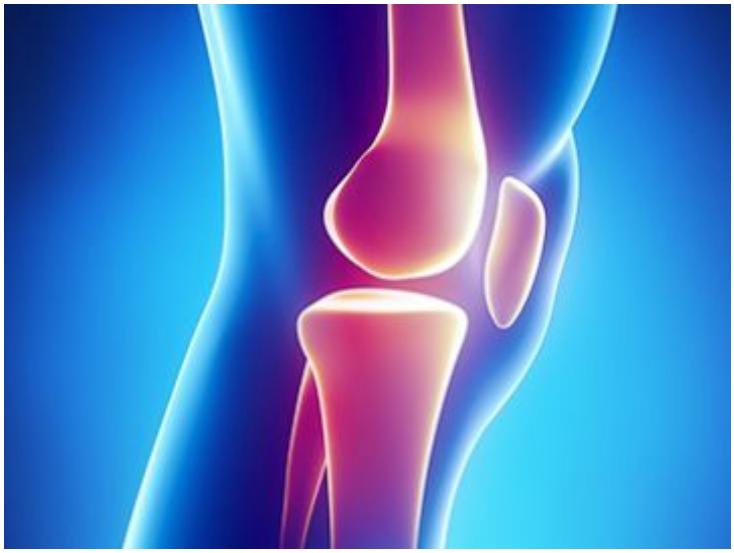

Researchers at the Indian Institute of Technology, Delhi (IIT-D) have designed and fabricated a low-cost, and light-weight polymeric polycentric prosthetic knee joint with energy-efficient gait option. The researchers took seven years to come up with this knee joint design. It has been tested clinically at Department of Physical Medicine and Rehabilitation, Government Medical College, Thiruvananthapuram.

According to the researchers, the result showed that the patient using the new prosthetic walked closer to natural gait pattern compared to the conventional ones. The energy expenditure was also reduced.

The prosthetic is made up mainly of polymeric material through injection molding technique and is polycentric in design consisting of an upper part, a lower part with pylon adaptor, a middle bar, a side bar and connecting bolts. It weighs a mere 350 grams.