IIT-M develops dental filling for pain-free remedy

SAY CHEESE

ADVANTAGES OF FILLING DEVELOPED BY IIT-M RESEARCHERS

➤ Does not shrink unlike conventional fillings that shrink up to 5% soon after the procedure

➤ Releases 50% less heat and does not harm pulp tissue or result in post-treatment sensitivity

➤ Biologically safe and does not have leach chemicals that can be harmful to the endocrine system

Chennai: More often than not patients experience pain or sensitivity after undergoing a dental filling to restore a decayed tooth as most conventional fillings begin shrinking almost immediately after the procedure.

At Indian Institute of Technology-Madras, researchers have come up with a new formulation of dental filling that does not shrink, ensuring a pain-free treatment. The composite is made of unique organic resins and inorganic fillers. They are also biologically safe compared to the ones currently available in the market.

Madha Dental College and Hospital professor and head, department of conservative dentistry and endodontics, Dr V Susila Anand said conventional dental composites shrink by up to 5%. It not only leads to post-operative sensitivity or pain, but also causes gaps between the teeth and fillings. Anand said, several studies conducted on rats have shown that chemical substances leaching from the dental fillings can affect the endocrine system and target tissues of sex hormones.

“The formulation is unique and does not leach chemical substances that have endocrine disruptive ability,” she said. “The research has a three-pronged approach— to curb post-operative sensitivity, shrinkage and improve biological safety,” she said.

Researchers said conventional materials, besides discharging certain chemicals, also emanate heat during polymerisation (a chemical process) that can harm the pulp tissue and cause post-treatment complications. The new composite releases 50% less heat keeping the pulp tissue safe.

IIT-M department of engineering design professor Venkatesh Balasubramanian said formulation of the new composites were put through rigorous chemical tests including the one to find its clinical impact on patients having multiple composite restoration after consuming liquor.
IIT-K proposes bio-toilets


ALLAHABAD: Acknowledging the utility of zero discharge toilets around mela campus, the Magh Mela authorities are taking measures to set up bio-toilets.
The authorities of Indian Institute of Technology, Kanpur (IIT-Kanpur) have sent Rs 1.20 crore proposal to Magh Mela authorities for setting up bio-toilets under Namami Gange project to keep the area clean.

District magistrate Sanjay Kumar said that IIT-K has sent the proposal for setting up bio-toilets at Magh Mela and efforts are being made for the same.

Chief medical officer Padmakar Singh said that the health department is coordinating with IIT-K to set up bio-toilets at Magh Mela under Namami Gange project. The proposal is being prepared by the experts of civil engineering.

Bio-toilets are called bio-digester. The system converts human waste into water and gases in an eco-friendly manner. Bio-digester is a decomposition mechanized toilet system, which decomposes human excretry waste in the digester tank using specific bacteria and further converting it into methane and water.

Bio-toilets are also useful to check water consumption as well as pollution. Disposal of human excreta has always remain a major problem but with the help of bio-toilets, the issue could be solved to a major extent.

NBCC bags Rs 295-cr contract from IIT Mandi


The National Buildings Construction Corporation Ltd (NBCC) has been awarded work for construction of academic building, guest house, gymnasium, hospital and auditorium at IIT, Mandi Campus. NBCC bags Rs 295-cr contract from IIT Mandi The state-owned construction firm NBCC has bagged a Rs 294.78-crore contract from the Indian Institute of Technology (IIT), Mandi, and the project will be completed in the next 30 months. The National Buildings Construction Corporation Ltd (NBCC) has been awarded work for construction of academic building, guest house, gymnasium, hospital and auditorium at IIT, Mandi Campus. In a filing to BSE, NBCC said the project will be completed in 30 months. "The promoter/promoter group/ group companies of NBCC do not have any interest in IIT, Mandi from whom the work has been bagged," it added. The company's share price fell 1.29 percent to Rs 994.10 on BSE. Yesterday, the company had announced that it bagged contracts worth Rs 8,523 crore in December. It had got projects worth Rs 192.74 crore in November. NBCC, which is under the administrative control of the Urban Development Ministry, is present in three main segments - Project Management Consultancy (PMC), real estate and engineering, procurement and construction (EPC contracting).
IIT graduate pursuing higher studies in US commits suicide


Shiva Karan, an alumni of IIT-Hyderabad, had left for US in August 2015 and was studying MS in North Carolina State University, one of his family members, who stays in Hyderabad’s Ramanthapur area, said. (Representation photo)

An IIT graduate from Hyderabad pursuing higher studies in a US university allegedly hung himself after being “depressed” over scoring less marks, his family members said in Hyderabad on Friday.

Shiva Karan, an alumni of IIT-Hyderabad, had left for US in August 2015 and was studying MS in North Carolina State University, one of his family members, who stays in Hyderabad’s Ramanthapur area, said.

“We got a phone call from officials of Telugu Association of North America (TANA) who informed that he was found hanging in his hostel room,” Shiva Karan’s uncle said here adding “as per their information he got less marks and grade,” which may have compelled him to take such an extreme step.

“We are awaiting more information and clarity,” the uncle said.