

## Water based gel for healing burn injuries

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**The starting point of the unique water-based gel is lignin, the major component of wood**



Indian researchers have developed an ointment derived from wood that can speed up healing of burn injuries, check infection and preclude the need for repeated dressings.

The starting point of the unique water-based gel is lignin, the major component of wood (15-30 per cent) and one of the most abundant renewable feedstock.

The work has been done in collaboration with scientists at the Indian Institute of Technology, Kharagpur, Jawaharlal Nehru University, New Delhi, University of North Bengal and Rush University Medical Center, Chicago.

This hydrogel has multiple uses. It is a dressing material, an anti-infective ointment, a drug carrier and also has anti-inflammatory properties. The biocompatible hydrogel was developed from renewable lignin after surface modification with a hydrophilic polyoxazoline chain by chemical grafting approach which showed versatile benefits to speed up the wound healing process.

Repeated dressings and application of fresh ointment over the burnt region is not required with this innovated ointment.