

Cornell researchers develop a device for diabetes management

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A Cornell University-led research team has developed a device that could revolutionize management of diabetes.

The research group has devised an ingenious method for implanting hundreds of thousands of islet cells into a patient. They are protected by a thin hydrogel coating and, more importantly, the coated cells are attached to a polymer thread and can be removed or replaced easily when they have outlived their usefulness.

The research group took inspiration from the way water beads on a spider's web and devised this ingenious method.

This therapy would involve minimally invasive laparoscopic surgery to implant approximately six feet of hydrogel-coated thread into the patient's peritoneal cavity.

Danish pharmaceutical giant Novo Nordisk has given patent protection to the string, known as Thread-Reinforced Alginate Fibre for Islets Encapsulation (Traffic).