

3D-printed corneas for the blind

This may solve the shortage of available eye donors and help millions of blind people gain sight again | Photo Credit: [The Hindu Archives](#)

In a first, scientists have created 3D printed human corneas that could solve the shortage of available eye donors and help millions of blind people gain sight again.

As the outermost layer of the human eye, the cornea has an important role in focusing vision. Yet there is a significant shortage of corneas available to transplant, with 10 million people worldwide requiring surgery to prevent corneal blindness as a result of diseases such as trachoma, an infectious eye disorder.

In addition, almost 5 million people suffer total blindness due to corneal scarring caused by burns, lacerations, abrasion or disease. The proof-of-concept research, published in the journal *Experimental Eye Research*, shows how stem cells from a healthy donor cornea were mixed together with alginate and collagen to create a solution that could be printed, a 'bio-ink'

Sign up to receive our newsletter in your inbox every day!

Please enter a valid email address.

At around 2 a.m. on May 17 morning, a grievously sick Mohammed Salih, a 28-year-old architect from Kerala's Perambra town, was rushed by his family to

END

Downloaded from **crackIAS.com**

© **Zuccess App** by crackIAS.com