

# 3D-printed chain mail alternates between flexibility and rigidity

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By [Matthew Sparkes](#)



**The chain mail is strong enough to support a weight**

Dr. Yifan Wang, Dr. Liuchi Li, and Dr. Siteng Fan

A form of 3D-printed chain mail can alternate between being flexible and rigid as needed, meaning it could be used for more comfortable medical supports, strong but flexible military armour or even temporary bridges.

[Chiara Daraio](#) at the California Institute of Technology and her colleagues used 3D printers to create several versions of [chain mail](#) using link shapes such as octahedrons, pyramids and rhomboids. The designs were printed in one go using plastic for some samples and aluminium for others.