



## Hydrogel for Cancer Therapy

[Source: TH](#)

Recently, researchers have developed an **injectable hydrogel** for **localised cancer treatment**.

- The hydrogel acts as a **stable reservoir** for [anti-cancer drugs](#), releasing them in a **controlled manner** to target cancer cells while **sparing healthy ones** and reducing side effects.
- The **hydrogel**, made of **biocompatible and biodegradable ultra-short peptides**, responds to elevated **glutathione (GSH)** levels, a molecule abundant in tumour cells.
- The hydrogel ensures **localized drug delivery** to the **tumour site**, improving treatment precision.
  - **Conventional chemotherapy** and surgery harms **healthy cells** while treating cancerous cells.
- Hydrogels are **water-based, three-dimensional polymer networks** capable of **absorbing and retaining fluids**.
  - Their unique structure **mimics living tissues**, making them suitable for biomedical applications.

**Read More:** [Novel Hydrogel to Remove Microplastics](#)

PDF Reference URL: <https://www.drishtias.com/printpdf/hydrogel-for-cancer-therapy>