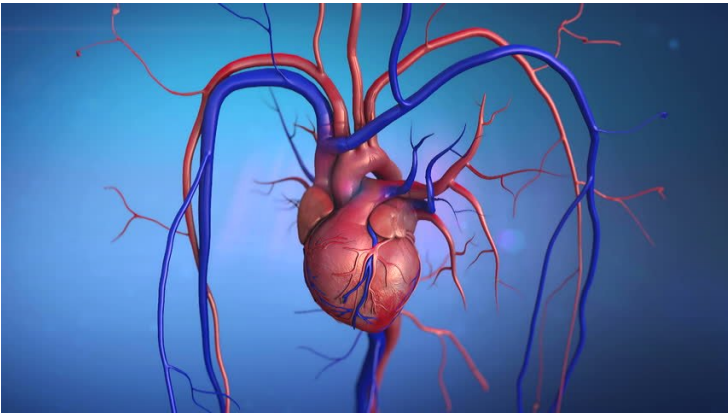


Researchers suggest use of nanogel for repairing heart damage

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One group of international researchers reports that encapsulating stem cells in a nanogel could help repair damage to the heart.



Heart disease and heart-related illnesses are a leading cause of death around the world, but treatment options are limited. Now, one group of international researchers reports that encapsulating stem cells in a nanogel could help repair damage to the heart.

The team encapsulated stem cells in nanogels, which are initially liquid but then turn into a soft gel when at body temperature. The nanogel didn't adversely affect stem cell growth or function, and the encased stem cells didn't trigger a rejection response.

When these enveloped cells were injected into mouse and pig hearts, the researchers observed increased cell retention and regeneration compared to directly injecting just the stem cells. In addition, the heart walls were strengthened. Finally, the group successfully tested the encapsulated stem cells in mouse and pig models of myocardial infarction.