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Heart patients to get valves grown from their cells  
[Press Trust of India]

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London, Sept 3 (PTI) Believe it or not, cardiac patients would soon be able to grow their own heart valves and have them transplanted within weeks of seeing a doctor.

British scientists claimed to have developed a treatment which will create heart valves - which ensure flow of blood in the right direction -- from stem cells from the body of the patient, the 'Daily Mail' reported here today.

A team led by heart surgeon Magdi Yacoub of Harefield Hospital here, has unravelled the groundbreaking treatment after successfully creating a replacement heart valve using bone marrow stem cells for the first time.

"Yacoub and his team are among the leaders in research to design better replacement heart valves using human stem cells and natural biological materials as the framework for these cells to grow in.

"We look forward to seeing the solutions to unresolved practical issues that will allow the promise of experimental research to become a reality for patients in the not too distant future," Jeremy Pearson of British Heart Foundation, which funded the research, told the daily.

In fact, the team harvested stem cells (the body's master cells) from a volunteer's bone marrow and used a cocktail of chemicals to coax them into becoming heart cells.

Placed on a scaffold made of biodegradable plastic, they grew and fused together to form discs of heart valve tissue just an inch wide. As the heart valves developed, the scaffold decayed, leaving behind solid tissue.

The researchers, whose work would soon be published in 'Philosophical Transaction of the Royal Society' journal, are due to begin testing the valves in animals this year and trials on people are expected to follow.

It may be mentioned that earlier this year, Israeli researchers said they had grown a tiny beating heart from stem cells from a newly created embryo.

(THROUGH ASIA PULSE)

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