

Soon, a jab that can help grow a new knee

It Will Help Arthritis Patients Avoid Replacement Surgeries

London: Coming soon: A jab that will let arthritis sufferers grow a new knee or hip joints, say British scientists.

A team, led by Newcastle University, claims the injection will "revolutionize" the treatment of osteoarthritis, the most common form of the condition — in fact, given in a person's 40s or 50s, just as arthritis begins, the jab could remove the need for hip or knee replacements in some cases.

Andrew McCaskie at New-

castle University said, "Every patient has their own 'repair kit'. Whereas joint replacement uses metal and plastic to replace the severely damaged joint, we're trying to treat at an earlier stage and assist the body to repair itself."

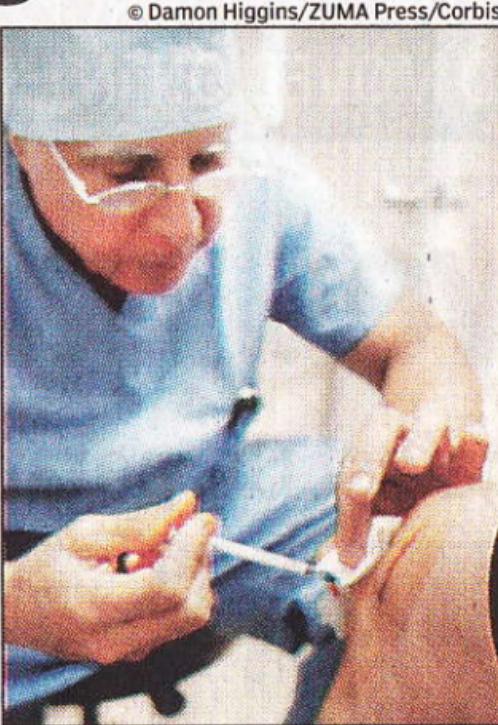
Arthritis is caused by wear and tear of cartilage that helps our joints take the strain of bending, lifting, gripping and kneeling. With no cure, painkillers and physiotherapy are the main

forms of treatment. Joint replacement surgery can help, but it is a complicated and not successful in all cases.

The new technique, which could be in use within five years, will harness the power of stem cells — "master cells" that can turn into other cell types — in patients who are still in their prime.

The scientists are working out how to regrow enough cartilage for an entire joint. And, in future, someone whose cartilage is wearing away could go to hospital to have a sample of stem cells drawn from their bone marrow or muscle.

The cells would then be fed a



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cocktail of vitamins and chemicals that trick them into becoming cartilage cells.

These would be injected into the patient's joint on a second visit to shore up the ailing knee or hip, they say.

Another possibility being investigated is "switching on" a person's stem cells when they are still inside their joints, so they can be turned into cartilage without leaving the body.

Alan Silman, medical director of Arthritis Research UK, also involved in the research, said that the ease of the technique should make it possible to treat people while they were still relatively young. PTI