

Cure for back pain almost within reach

By Deborah Field

THE head of orthopaedic surgery at St George Hospital believes he is on the cusp of finding a cure for back pain.

Ashish Diwan and his research team have discovered a molecule that can heal damaged inter-vertebral spinal discs.

Bone Morphogenic Protein 7 (BMP-7) has been shown to reverse cell death and strengthen the cushion between the vertebrae.

The disc allows for movements of the vertebrae and lets people bend and rotate their neck and back.

There is no molecular treatment available for injured spinal discs.

Dr Diwan has been treating patient's disc samples with the protein.

"Our research has shown that not only does BMP-7 reverse the process of degeneration and cell death but also enhances production of a matrix that provides the cushioning effect of the discs," Dr Diwan said.

"With molecules like the BMPs showing such potential we may be able to develop a strategy for chronic or moderately recurring back pain when patients can be offered simple disc injections."

BMP-7 would be used in place of a patient's own hip bone chips in spinal



Back on board: Dr Ashish Diwan is bending over backwards to find a cure.

Picture: Chris Lane

fusion, Dr Diwan said. In spinal fusion, bone grafts are placed around the spine during surgery.

The body then heals the grafts over, which weld together the vertebrae.

The hospital has already received international acclaim for its groundbreaking study.

Dr Diwan was awarded best paper at the recent International Society for the Study of Lumbar Spine scientific meeting in Norway for his research into the molecule.

A clinical trial of BMP-7 will begin soon overseas.

Dr Diwan said back pain could impact on a patient mentally and not just physically.

"It has impacts on the ability to connect with society very well," he said.