

New Treatments to Treat Degenerative Disc Disease

57% of Hong Kong people experience a serious low back pain at least once in their lifetime. Degenerative disc disease (DDD) is responsible for 50% of all low back pains. The risk factors of DDD are physically demanding work, age, smoking and genetic factors.

Recently, Department of Orthopaedics and Traumatology, Faculty of Medicine, the University of Hong Kong (HKU), has successfully identified 2 genetic factors associated with DDD: Genes coding for type IX collagen and genes coding for a vitamin D receptor. In the research subjects of about 1,000 Hong Kong people, 20% had a mutation in type IX collagen and another 3% had a vitamin D receptor mutation.

No treatment can recover the degenerated disc but treatments can reduce pain for 90% of patients with DDD related low back pains. For those with serious pain, surgery is needed but conventional surgeries cannot preserve motion. The latest technology introduced in HK is total disc replacement with an artificial implant. The implant allows the segment of the spine to move.

In October 2004, the Queen Mary Hospital, underwent the first implantation with an artificial disc in HK, with very satisfactory early results.

The Department of Orthopaedics and Traumatology, Faculty of Medicine, HKU, is currently investigating other emerging technologies: disc transplantation and biological disc replacement using stem cell technology.