

## CONDITIONS

### THUMB BASE OSTEOARTHRITIS

A deep pain at the base of the thumb can be caused by arthritis of the carpo-metacarpal (CMC) joint. The pain may initially be episodic made worse by activities that require a strong pinch grip (writing, opening door handles, peeling potatoes), with time (months or years) the pain may become near continuous, and more severe.

The CMC joint allows the thumb to move across the palm. The joint surfaces are normally covered with smooth cartilage. Wear and tear, and laxity of the ligaments that normally support the base of the thumb, can cause erosion of the smooth cartilage surfaces (osteoarthritis). The grinding of the damaged joint and the loss of normal joint alignment cause pain and stiffness.

Thumb base osteoarthritis occurs more commonly but not exclusively in women, and can occur from age 40 onward. In severe disease there is a progressive sub-luxation (displacement) of the carpo-metacarpal joint, this can unbalance the thumb and lead to a Z-deformity with the metacarpo-phalangeal (MCP) joint of the thumb hyper-extended.

The diagnosis of thumb base osteoarthritis can be confirmed by clinical examination, and conventional X-rays. Other causes of pain should be excluded particularly Scapho-Trapezium-Trapezoidal (STT) arthritis, which causes pain at the thumb base exacerbated by radial and ulnar deviation (side-to-side) of the wrist. (see: STT fusion operation).

Surgery is appropriate for patients with thumb base osteoarthritis in continuous and severe pain. There are several potential operations:

Trapeziectomy is the most commonly performed and arguably most reliable operation. Under a general anaesthetic or regional anaesthetic, the trapezium is removed along with any loose fragments of bone. Sub-luxation of the thumb base can be corrected by ligament reconstruction using part of a wrist tendon weaved through the metacarpal base. Mr Ian Grant reserves ligament reconstruction for patients with more severe disease. He uses 50% of the flexor-carpi-radialis (FCR) tendon and supports the thumb base with a light weight cast or splint for 4-weeks after surgery. Surgery is usually performed as a day case procedure.

Surgery is likely to reduce the pain levels but will not unequivocally eradicate all the pain. Most patients will need 6-months after surgery before returning to heavy lifting.

### ALTERNATIVES TO SURGERY

In mild or early disease conservative measures such as activity modification, rest, non-steroidal anti-inflammatory medication (NSAIDs), splints (either thermoplastic or neoprene) can ease the discomfort. Steroid injection may provide temporary symptom relief, (injection into the CMC joint is not easy and cannot be repeated performed). Patients close to retirement age may want to avoid surgery until retirement age is reached.

### RISKS OF SURGERY

Infection, scar tenderness, residual pain, and stiffness.