



QUESTION | Is arthritis of the rest of the hand treated the same way as arthritis of the base of the thumb?

ANSWER | Last year at our annual Orthopaedic Updates lectures, I spoke about how arthritis at the base of the thumb can be treated nonoperatively and operatively. The current gold standard operation for this is a trapeziectomy, usually coupled with a ligament reconstruction and interpositional arthroplasty. This particular reconstruction works because the void left by the trapeziectomy can easily be filled in a way to allow good freedom of movement at the reconstructed CMC joint.

Degenerative osteoarthritis of the other digits of the hand have similar nonoperative management in terms of medications, injections, splints and activity modification. However, surgery for these cannot be performed in the same way as the base of the thumb because of their requirement for hinge-like movement.

For the *MCP and PIP joints of the index to little fingers*, the operation of choice is a joint arthroplasty, similar to how a knee replacement would allow restoration of hinge-like movement. Some of the available prostheses require intact collateral ligaments while others will allow stability without intact collateral ligaments – each of these has its advantages and disadvantages. Post-operative management is quite variable, depending upon the condition of the joint at time of surgery and how the procedure is performed. Early range of motion is almost always favoured, but sometimes the range may be restricted or passive-only in certain directions to allow protection of tendons. This needs to be tailored to the individual surgeon's instructions based on the procedure and implant. In the end, the patient is able to achieve reasonable range of motion and good function. However, the prostheses do not allow for heavy use as this will cause them to loosen or break in the long term.

Occasionally, the condition of these joints does not allow an arthroplasty to be performed, and an arthrodesis may be recommended instead. While this will give good analgesia, it will clearly not allow movement at that joint and will therefore come with some restriction in function.

For arthritis of the *DIP joints of the index to little fingers*, the operation of choice is a joint arthrodesis. Movement in this joint is not as essential for function as it is for the more proximal joints and it is not technically possible to seat a hinged prosthesis in such a small joint reliably. Post-operative management is also easier for the patient than a joint replacement. Usually, a simple mallet finger splint is required to protect the arthrodesis site until union is achieved, at which time full heavy use of the hand is allowed without restriction.

For arthritis at the *MCP and IP joints of the thumb*, the operation of choice is usually an arthrodesis. Because the base of the thumb has such good range of motion, patients have good function following this. Just as for the DIP joints of the other digits, once the arthrodesis has completed healing, there is no restriction in use of the hand.

In the end, any decision to perform this surgery needs to be discussed in detail with the patient as the operation itself is not the end of the treatment. Follow-up therapy from surgery can continue for months and some operations required life-long restriction in the use of the hand, which the patient must be aware of prior to surgery. However, for the right patient and indication, joint arthroplasty or arthrodesis can give excellent pain relief and function with restoration of quality of life.