Osteoarthritis of the hand/thumb/fingers

What is osteoarthritis?
Osteoarthritis (OA) is the most common form of arthritis in the UK. OA is wear and tear and repair process mainly affecting the joint cartilage and the bones next to the cartilage.

A joint is where two bones meet and allows movement. The ends of the bone are covered in cartilage which is a hard, smooth tissue. The joint is enclosed in a capsule, tough tissue which helps to give the joint stability, then covered with ligaments (fibres that link bones together at a joint). Within the capsule is a small amount of thick fluid called synovial fluid. This fluid lubricates the joint which allows smooth movement between the bones. The movement of the bones is caused by muscles which pull on tendons that are attached to bone.

What causes osteoarthritis?
All normal joints and joint tissues are constantly undergoing some form of repair because of the wear and tear that is placed on them through our daily activities. However, in some people, it seems that this repair process becomes faulty in some way (perhaps because of severe wear and tear to the joints or a problem with the repair process) and OA develops.

In joints with OA, the joint cartilage becomes damaged and worn. The bone tissue next to the cartilage can also be affected and bony growths can develop around the joint edges. These growths are called osteophytes and may be seen on X-rays. The joint and the tissues around the joints can also become inflamed. This inflammation is called synovitis.

Some factors may play a role in the development of OA include:

- Age. OA becomes more common with increasing age. It may be that the state of the blood supply to the joint and the state of the natural mechanisms of repair become less efficient in some people as they become older.
- Genetics. There may be some inherited tendency for OA to develop in some people.
- Your sex. Women are more likely to develop OA than men.
- Previous joint injury, damage or deformity. For example, this may include previous joint infection, a previous fracture (break in the bone) around a joint, or a previous ligament injury that caused a joint to become unstable.
- Occupational overuse of a joint.
What are the symptoms of osteoarthritis?
Osteoarthritis causes pain and stiffness. In the hand, it usually affects the base of the thumb and the joint at the ends of the fingers. The joints can become thicker and bony nodules form on the finger joints.

What is the treatment for osteoarthritis?
**Exercise** is essential in arthritis with the main goals being to reduce pain and to maintain normal joint movement and strength. Attached are some gentle daily exercises. When exercising, a certain amount of discomfort may be expected. If it lasts for more than one hour after exercising, decrease the number of repetitions performed. If the joints are severely inflamed, then reduce the repetitions. Exercise little and often through the day rather than one long period. Do exercises slowly and move the joint through its full range of movement.

A **brace** can sometimes help support the joint and improve your function.

Ice may be helpful in reducing pain and swelling. **Ice packs** may also help reduce pain. Wrap frozen peas / crushed ice in a damp, cold towel and place on the wrist or hand for up to 10 minutes. **Heat** can help relieve stiffness, using a heat pad or placing the hand in warm water and moving the wrist and hand.

Try to **protect your joints.** Avoid straining when lifting or carrying. Use both hands and avoid carrying heavy bags with your fingers. Use appliances if necessary for jars or taps to avoid overloading the joints.