Arthritis of the Base of the Thumb

Advice and Exercises

Arthritis at the base of the thumb is very common. It is a progressive condition. At any state in time, symptoms can vary and at times, your thumb can become rather painful. Pain is often one of the prime presenting symptoms. Because of the pain, there is a tendency that movement at the thumb decreases and your grip strength also decreases.

Pain

Pain is an unpleasant sensation. Pain present at the base of the thumb can limit day to day function. A sustained grip, against resistance, for a long period of time can trigger pain. The intensity of the pain usually depends upon the grade of joint narrowing present at the base of the thumb.

How to manage your Pain

There are different approaches to manage your pain.

- Application of hot packs for 15 minutes might help to relief pain
- Immersing hand in very hot water (as hot as you can tolerate it) and squeezing a sponge in hot water may also assist with pain relief. Squeeze sponge in hot water for 5 minutes, followed by
pinching the sponge with tip of thumb against the tip of each individual finger. Carry out this exercise for a further 5 minutes.

- Analgesia should be used on a regular basis. During an inflammatory episode always make sure you have your analgesia every four hours for the following week. This will help to decrease the inflammation and decrease the present pain. Consult your GP for advice regarding the most appropriate analgesia.

- In cases where pain is severe, and you are rating your pain above 7 on a 10 point scale, corticosteroid might be able to relieve the present pain. However, this can only be possible if there is still space at the joint. With this type of injection, cortico-steroid is mixed with local anaesthetic. This type of management is purely for pain relief. Joint injections do not cure the cause of arthritis.

- Application of pressure over the following trigger points might assist with pain relief.

Apply pressure over the first web space by pinching the painful thumb with the opposite thumb. Then strengthen your fingers and thumb to feel the stretch where you are clipping. Hold for 30 seconds and repeat for 10 times.
Grasp thumb with opposite hand, either behind your back or in front, whichever is most comfortable. Let the weight of your arms pull the thumb away from the hand. If you place the hand in front (like in the picture) pull the thumb away from the hand. This will help to create some space within the joint. Hold for 30 seconds and repeat 10 times.

Place the involved hand against your chest. With the other hand, wrap fingers around the length of your thumb. Press hand against your chest and gentle loosen the base of the thumb by rolling the involved thumb away from the chest. Hold for 30 seconds. Repeat 10 times.
Thumb Exercises

Movement of the thumb is very important in day to day function. Hence the following exercises can assist to maintain and improve the movement in your thumb. These exercises should ideally be carried out after warming up your hand by using either a hot pack (hot water bottle wrapped around your thumb, or a warm wheat bag wrapped around your thumb) or immerse your hands in warm water. Heat relaxes the muscles and makes all structures in your hand softer and more pliable to movement. It is quite common that your hands/thumb can feel uncomfortable or slightly painful when carrying out these exercises. This is because we are stretching all the joints in the thumb till the end of their range. If pain is still present half an hour after exercising, you should reduce the number of repetitions.

Exercise 1

Thumb Abduction/Adduction

Place hand sideways on a surface. Apply pressure over the base of the nail of the thumb, push thumb away from the palm. Repeat for 10 times. As pain starts to decrease, and you feel more comfortable with these exercises, some resistance can be applied. This can be achieved by placing the index finger of the non-affected hand over the tip of the exercised thumb. Apply some resistance against the tip of thumb and do the same described movement. The amount of resistance should be enough to avoid/produce any pain over the base of thumb.
Exercise 2

Palmar Abduction

If no pain is present, resistance can be applied. This can be achieved by placing the index finger of the non-affective hand over the tip of the exercised thumb. Apply some resistance against the tip of thumb and do the same described movement. The amount of resistance should be enough to avoid/produce any pain over the base of thumb.

Exercise 3

Thumb extension exercises

Place hand over the boarder of the little finger.

Move the thumb towards little finger to touch the tip of the little finger then lift thumb back to the original position of the exercise.

Make sure you are not overstretching your thumb at the middle knuckle as this can cause more damage than help. Always make sure that the tip of thumb, the middle knuckle of the thumb and the base of the thumb are always aligned in a straight line. This will protect your joints and your soft tissues (i.e. ligaments at the base of the thumb). Repeat for 10 times.
If no pain is present, resistance can be applied. This can be achieved by placing the index finger of the non-affective hand over the tip of the exercised thumb. Apply some resistance against the tip of thumb and do the same described movement. The amount of resistance should be enough to avoid/produce any pain over the base of thumb.

**Exercise 4**

**Thumb Opposition**

Touch tip of thumb to tip of index finger to form an ‘O’.

Hold this position for 3 seconds, then let go. Repeat for 10 times.

If no pain is present, resistance can be applied. This can be achieved by pulling the tips of the thumb and index finger as shown in the first picture. Maintain the contraction for 3 seconds. The amount of resistance should be enough to avoid/produce any pain over the base of thumb.

**Exercise 5**

**Web space exercises**

Place hand flat on a surface. With other hand apply some pressure over the middle joint of the index finger. In addition try and move thumb towards and away from the index finger. Maintain the contraction of the index finger for 3 seconds and move the thumb three times. Repeat this exercise 10 times.
This exercise will help to improve the muscles between the thumb and the index finger. This is one of the main muscles which tends to become rather weak during the process of arthritis at the base of the thumb.

**Activity Modification**

If any activity or tasks are aggravating your symptoms, you ought to modify your activity. When you are diagnosed with arthritis at the base of the thumb, any lateral pinching which tends to aggravates yours symptoms should be restricted. Such activity is believed to elicit pain over the base of the thumb. Therefore avoid:

- Any tight lateral pinch. Use the palm of both hands to open jars or bottles.
- Always scoop objects using fingers, if pain is present at the base of the thumb.
- Use assistive devices if need be for better mechanical advantage.

**Thumb Dexterity Exercises**

Hand dexterity always tends to decrease as arthritis in the base of the thumb tends to progress. In late stages fine motor movement tends to become rather difficult. The following are some exercises which can help maintain your dexterity:

- Use a small marble or a very small ball and with the tip of the exercised thumb move the ball with the thumb in a rotating mode. Start clockwise for 10 repetitions then anticlockwise.
- Hold the marble or ball with tip of the exercised thumb, and move the thumb forward and backward in a straight line.
- Use two marbles or two Chinese balls and try and start moving them in your hands by alternating/rotating their position within your hand. Repeat this for about 5 minutes. If thumb starts to become painful, build up your exercises.