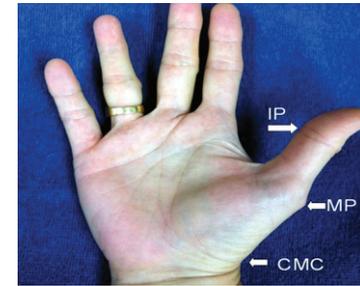


APPENDIX B. ROM Exercises for the Thumb

Do the exercises as taught by your therapist
 Move the joints as far as you can without forcing them
 Always stretch gently. Hold for about 30–60 sec at the point of feeling tightness or slight discomfort
 Do not bounce. You should feel a stretch but not pain
 Perform each exercise for at least four repetitions
 Exercises should be performed 2–3 d per week



ROM Exercises	Starting Position	Ending Position	Description
<p>AROM: Thumb flexion</p> <p>PROM: Same as AROM but assist with the other hand</p>			<ol style="list-style-type: none"> 1. Start with thumb extended as far as possible away from the palm 2. Flex the tip of the thumb to the base of the small finger
<p>AROM: Thumb abduction</p> <p>PROM: Same as AROM but assist with the other hand</p>			<ol style="list-style-type: none"> 1. Start with thumb lying flat against palm in line with the index finger 2. Spread thumb as far away from the palm as possible in the same line as the index finger
<p>AROM: Thumb opposition</p> <p>PROM: Same as AROM but assist with the other hand</p>			<ol style="list-style-type: none"> 1. Touch thumb to the tip of each fingertip alternately
<p>AROM: Thumb CMC extension</p> <p>PROM: Same as AROM but assist with the other hand</p>			<ol style="list-style-type: none"> 1. Spread out thumb as far as possible from palm 2. Caution: Do not hyperextend the thumb MP joint
<p>AROM: Thumb IP flexion</p> <p>PROM: Same as AROM but assist with the other hand</p>			<ol style="list-style-type: none"> 1. Bend just the tip of the thumb (IP joint)

AROM: Thumb MP flexion
 PROM: Same as AROM but assist with the other hand



2. Bend just the MP joint

Resistive exercises

Exercises should be performed one set for 10–15 repetitions, 2–3 d a week with a recovery period of 48 h between exercise sessions
 Isometric exercises can be performed if exercise against resistance causes pain
 Lateral-pinch and key-pinch strengthening exercises should be avoided in patients with advanced CMC OA who have instability and deformity
 Exercises should be performed pain free

Strengthening Exercise	Starting Position	Ending Position	Description
Thumb extension against rubber band or manual resistance			1. Wrap rubber band around metacarpals with hand flat on table 2. Spread rubber band out as far possible
Thumb abduction against rubber band or manual resistance			1. Wrap rubber band around metacarpals with hand resting on small finger 2. Spread rubber band out as far possible
Pinch strengthening			Pinch object between tip of fingers and thumb <ul style="list-style-type: none"> • Use _____ therapy putty • Use clothespin • Use _____
Grip strengthening			Squeeze object as tightly as possible without inducing pain <ul style="list-style-type: none"> • Use foam block • Use gripper • Use _____ therapy putty • Use _____

ROM = range of motion; PROM = passive range of motion; AROM = active range of motion; CMC = carpometacarpal; IP = interphalangeal; MP = metacarpophalangeal; OA = osteoarthritis.