

Joint Protection Techniques

Activities that may aggravate/ promote wrist and hand deformities	Possible joint protection strategies	Mechanisms underlying typical deformities
Opening a jar with the left hand and closing a jar with the right hand	Use the heel of the hand to close the jar or use a jar opener with two hands	As rheumatoid arthritis progresses, the joint structures such as the capsule, ligaments and muscles/tendons are affected. Specifically, structures are attenuated/stretched while the forces associated with functional activities may increase the likelihood of deformities occurring in wrist and hand joints. The flexor tendons exert strong ulnar and volar forces during functional activities such as gripping, while lateral pinch activities, gripping an object, writing and gravity tend to place radial deviation forces at the wrist joint, ulnar and volar forces on the MCP joints. As a consequence, typical deformities of the wrist joint and the fingers include radial deviation at the wrist and ulnar deviation at the MCP joints and varying swan neck or boutonniere deformities of the digits.
Smoothing a sheet by using shoulder adduction movement	Use shoulder abduction to smooth the sheet	
Stirring with a spoon using forearm pronation and lateral pinch on a spoon	Stir with the forearm in neutral and without thumb pinching	
Resting the hand on the chin, with ulnar forces to the digits	Avoid resting hand on chin or be sure to place chin in palm	
Lifting a cup of coffee	Use two hands, light weight cup or a cup with no handle	
Cutting foods with a knife	Hold the knife like a dagger, use a pizza cutter or electric knife	
Carrying a purse with a lateral pinch	Use a waist bag, backpack, shoulder bag or trolley bag	
Lateral pinch to turn a key (in a door, car ignition) (see Figure 1.)	Use a built up key turner (Figure 2), attempt to use pincer grip (Figure 3) over lateral pinch. See next page for example.	

Reference: Biese, J. (2007). Arthritis. In C. Cooper (Ed.), *Fundamentals of hand therapy*. (pp. 348-375). Missouri: Mosby Elsevier.



Figure 1: example of the lateral pinch.



Figure 2: example of a 'built up' key turner.



Figure 3: example of the pincer grip.