

Occupational Therapy Guideline: Additional file 5

Hand and Wrist Exercises.




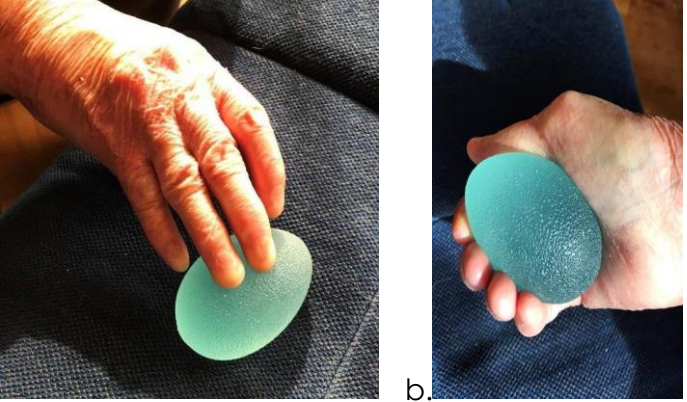
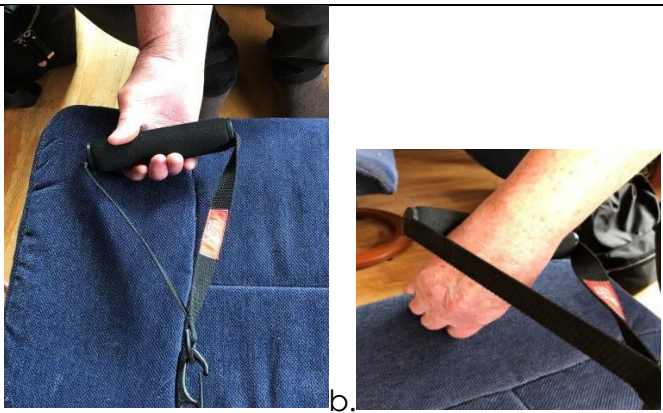
Type of exercise	Instruction and how many repeats	How often per week
With no tools		
	Hold for 20-30 seconds and then repeat.	To be done daily.
	Stretch from the base of the thumb and hold for 20-30 seconds and repeat	To be done daily.
	Hold for 20-30 seconds and repeat.	To be done daily.

Figure 1: Wrist extension stretch.

Figure 2: First web space stretch.

Figure 3: Interdigital finger stretching.

Type of exercise	Instruction and how many repeats	How often per week
With tools		
 <p>a.</p> <p>b.</p> <p>Figure 4: Hand exercises using a gel egg.</p>	<p>Roll the egg with fingers back and forth to stretch fingers into extension 10 times slowly</p> <p>Grasp egg to gently stretch fingers and thumb open. Also stretch the base of the thumb. Hold for up to 1-2 minutes.</p>	<p>To be done daily.</p> <p>To be done daily.</p>
 <p>a.</p> <p>b.</p> <p>Figure 5: Finger and wrist exercises using a padded handle against light resistance.</p>	<p>Grasp handle and pull gently to stretch fingers into extension. Hold for a count of 10.</p>	<p>To be done daily.</p>


Type of exercise	Instruction and how many repeats	How often per week
 <p>a.</p> <p>b.</p>	<p>Gently grasp the ball, keeping the palm in contact with the surface. Use the ball to gently stretch the base of the thumb open. Hold for a slow count of 10, repeat.</p> <p>Grasp and/or pinch the ball with fingers and thumb to maintain hand strength. Repeat 10 times.</p>	<p>This can be alternated with the stretch on the knee or the egg exercise above.</p> <p>To be done 3-5 times per week if it does not cause skin breakdown.</p>

Figure 6: Hand exercise using a light, pliable ball for first web-space stretch and pinch strengthening.

Product	Geographical location	Estimated cost in US\$
Gel Egg	Norway, US, Mexico	6.00-9.00
Padded handle against light resistance	Norway, US, Mexico	2.00-6.00 to make, 12-15.00 to buy
Pliable ball	Norway, US, Mexico	8.00-12.00

For additional examples, resources and suggestions, please refer to Occupational Therapy in Epidermolysis Bullosa by Weiß and Prinz (2013).