

## Appendix 1. Standardized hand exercise programme for SSc

All patients with SSc in the hands are instructed to practice hand exercises at home. An individual programme is composed by selection of appropriate exercises from the following exercise suggestions. Experience shows that you have to pay extra attention to the bending of the fingers' knuckle joints, stretching the fingers' middle part and rotating the forearm.

### Finger flexion and extension

Place your hand on a table with the forearm in a neutral position and the little finger side down on the table. Bend your fingers in a rolling motion from the fingertips and into the palm to make a fist. Then stretch the fingers fully extended.



### Bending of knuckle joints

Make a fist with one hand. Press against the fist with the other hand's palm to stretch the knuckle joints.



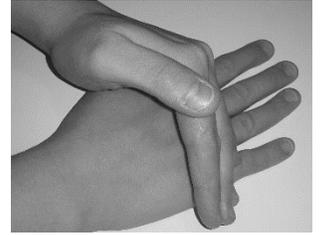
### Finger stretch

Place your hands palm-down on a table. Straighten your fingers as flat as you can against the surface, without forcing the joints. Pull your hands back towards you over the table so fingers are stretched gently.



### Finger stretch 2

Stretch one hand across the table with the palm placed against the table. Place the other hand over the hand on the table and press the fingers gently towards the table. Pull your hand across the table towards you to stretch fingers.



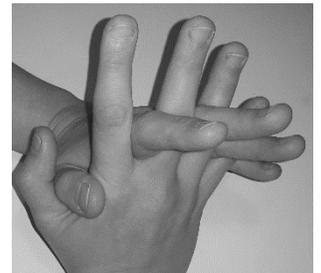
### Finger spread

Place your hands palm-down on a table. Spread your fingers apart - as far as possible.



### Finger spread 2

Fold your hands. Press your fingers down between each other and keep the pressure.



### Movements of the thumb

Move your thumb to touch the tip of the other four fingers, one at a time, making the shape of an "O".

Let the thumb tip slide down the little finger to the palm and hold the stretch.



### Thumb abduction

Grasp for a 1½ liter bottle - or less (for example a mug or glass). You must make your grasp as "big" as you can.



### Thumb strength

Place the tip of the thumb against the tip of the index finger to form a ring.

Repeat with the other hand.

Set the rings together and try to pull your fingers apart.



### Extension and flexion of wrist

Place your hand on the table with the forearm in a neutral position. Place the other hand over the forearm of the hand on the table. Move the hand on the table from side to side.



### Radial and ulnar deviation of wrist

Place your hand on the table with pronation of the forearm. Keep your fingers flexed. Place the other arm over the forearm and move the hand on the table from side to side.



### Supination and pronation of forearm

Keep the shoulders relaxed. Bend elbows and keep them

close to your body. Turn your forearms so your palms alternately face up and down.

