

# Writing Ergonomics

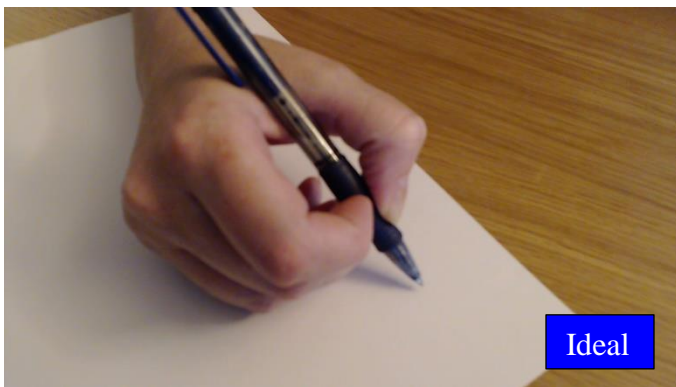
## Guidelines for reducing overload



Increased time pressure, writing duration as well as poor technique can cause cramping and pain around the thumb and in the forearm.

### Good Writing Technique

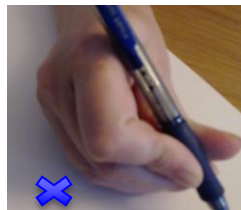
- (1) Use thumb, index and middle finger pulp to support pen with ring and little fingers tucked.



You may have developed a different technique such as a grasp technique. You can relearn the optimal technique, but this is not advisable if you are close to a pressure writing time such as an exam period.



(2) **Keep tension low**  
If the top joints are back bending or fingers are showing white areas, then these are signs of excessive pressure. Try and bend the finger tips slightly and relax grip until normal blood flow returns



- (3) **Reduce speed by 10-15%**

Think of your hands as endurance runners and choose a pace where you can continue writing for a long period of time. Just a seemingly small reduction in

speed can prevent you having to repeatedly stop to stretch or be distracted by discomfort.

- (4) **Use a pen with easy grip and easy flowing ink**

Having a rubber grip allows control of the pen with reduced muscle force. Choose a pen with a low friction nib, such as a Rollerball, to allow ink to flow with minimal force.

### Assistive Techniques

- (1) **Heat**

Applying a hot towel or wheatpack to the muscle between the thumb and index finger or on the muscles at the elbow end of the forearm can help muscles to relax and reset.

- (2) **Massage.**

Massage deeply through the muscles at the elbow end of the forearm. Pinch massage through the muscle between the thumb and the index finger to reduce resting tension.

- (3) **Stretching**

(a) Offload the wrist extensor muscles by gently bending the wrist forwards, straightening the elbow and twisting the hand outwards. There is no need to add extra pressure. Hold for a few seconds.



(b) Offload the wrist flexor muscles by pulling the wrist backwards, straightening the elbow and pulling the arm out to the side. Hold for a few seconds.

