Guidelines for the H-reflex study

The set up details refer to KP EMG equipment

- The recording is set to amplifier 1
- Duration of stimulation 1 ms
- The H-reflex habituates - stimulate every other second (0.5Hz).

Position of limb: Patient sitting or reclining (median nerve), lying face down or sitting (tibial nerve)

Type of recording electrodes: Surface plate electrodes

Position of recording electrode:
1. Tibial nerve: The active electrode over the soleus muscle, the reference over the achilles tendon. If bad response, try gastroc position.
2. Median nerve: The active electrode over the flexor carpi radial muscle, the reference at the dorsal side of the lower arm.

Type of stimulating electrode: Surface electrodes on a fixed bar. Note that the cathode is proximal (to avoid anodal block).

Stimulation sites:
1. Tibial nerve: Over the tibial nerve in the knee.
2. Median nerve: Over the median nerve in the elbow.

Recording setup:
- Record maximal motor potential with proper amplification,
- To see the H-reflex in the following runs, change the amplification to 0.2 mV/div.
- Take the stimulation intensity down to 0, increase gradually until the H-wave appears. Repeat the stimulation on this level to demonstrate the stability in latency and appearance of the H-reflex. Note: stimulation frequency LOW, stimulation intensity LOW
- Increase the stimulation intensity until the H-reflex disappears, replaced by F-waves and a maximal motor amplitude

This procedure is completed within 20 stimulations.

- If you have difficulties in eliciting the H-reflex – ask the patient to activate the muscle slightly. This facilitates the spinal cord and contributes to the appearance of the reflex response. Note that the latency will be shorter and activation must therefore be used on both sides. Note in comments that activations have been made.

- Place the recording and stimulating electrodes similarly.
Results: Measure the latency difference between the motor response and the H-reflex.