

ES Parameter:	Description:	Reported treatment parameters:	Considerations:
Frequency	Pulse per second (Hz)	10 – 60Hz	Needs to be considerably high enough for a smooth contraction but not high enough to cause fatigue. Many studies aimed to produce tetanised contraction
Pulse width	Length of individual pulses (µsec)	100-350 µs	Increasing pulse width and/ or amplitude increases the area and strength of activation. So these parameters may need to be adjusted with respect to one another.
Intensity	Wave Amplitude (mA)	No recommendation can be made. Aim to produce painless contraction	
Duration	Individual treatment time (Minutes)	5 minutes to 7 hours per session, generally 1 hour per day	Consider patient tolerance/ compliance, response, feasibility and situation.
Dosage	Number of treatments per day/week/total treatments	5 – 7 days per week 4 – 6 weeks or until sufficient voluntary muscle activity/ reduction of subluxation without stimulation	
Ramp/ramp down	Time to reach chosen treatment intensity and then return to rest after selected stimulation	No recommendation can be made 2 – 3 seconds up and down	Adjust to obtain a comfortable near normal graded movement.
Stimulation wave form	May be Monophasic (repetitive unidirectional pulse) or Biphasic (pulses with current flow in both directions) which may be Symmetrical or Asymmetrical	No recommendation can be made	These parameters may affect skin irritation and patient comfort
On/Off cycle time	Work/ rest time (Sec)	No recommendation can be made based on evidence 10 -15 second on and off common with 1:1 ratio	Adjust in order to obtain balance between rest and fatigue
Muscles stimulated	Muscles which, if sufficiently stimulated, will attain reduction in shoulder subluxation in hemiplegic arm	Supraspinatus +/- Posterior Deltoid +/- Middle Deltoid	Consider number of channels available to provide stimulation (2 or 4). Consider direction of subluxation
Duration since stroke	The length of time since stroke onset and therefore onset of paralysis/risk of subluxation/actual subluxation	As early as possible, ideally within 48 hours. Certainly within 2 – 3 weeks of stroke onset	Increasing length of time since stroke increases likelihood of developing subluxation and that this will become irreversible

(Table taken from SSAHPF)