



LA&HA Doctor's Notes

HITS[®] Magnetic Stimulation Protocol
Considerations using StarFormer[®]

- **A typical magnetic stimulation protocol for muscle strengthening utilizes high pulse frequencies (> 20 Hz)**, which enable a fused (tetanic) muscle contraction. There is a positive and linear relationship between pulse frequency and muscle force production, with the recommended frequency range for generating force between 20 and 50 Hz. However, stimulation at higher than optimal frequencies leads to a decline in sustained muscle force due to the onset of muscle fatigue, likely caused by the preferential recruitment of fatigue-prone Type II muscle fibers.
- **Using lower frequencies, which produce sub-tetanic contractions, supports aerobic energy conversion** by providing more recovery time for muscle fibers (both Type I and Type II) between pulses while maintaining a high metabolic demand. Lower frequencies (< 20 Hz), when applied at maximum tolerable intensity, are effective for enhancing the aerobic capacity of targeted muscles and promoting a sustained aerobic exercise response.
- **Frequency modulation** is recommended **to prevent muscle habituation**. Incorporating intermittent steps with lower frequencies reduces muscle fatigue.
- **Incorporating intermittent pause steps** (OFF periods up to 6 s) allow for rest intervals between muscle contractions, which are necessary for the removal of metabolites and the replenishment of the muscle's energy reserves, thereby **reducing the likelihood of muscle fatigue**.
- **Each treatment should begin with a low intensity and gradually increase to the patient's level of tolerance**. The intensity must be adjusted to each patient individually.

Examples of favorite programs as saved in StarFormer[®] by current users

IntimaWave[®] Chair

Condition	Sessions	Duration / treatment frequency	Stimulation	Active applicator
Stress Urinary Incontinence (SUI)	6-12	30 mins / 2-3 times per week	Maximum intensity up to patient tolerance, multi-step treatment at 10-35 Hz frequency	IntimaWave seat applicator
Urge Urinary Incontinence (UUI)	6-12	20-30 mins / 2-3 times per week	Maximum intensity up to patient tolerance, multi-step treatment of 10-30 Hz frequency	IntimaWave seat and back applicators / single or simultaneous program possible
Mixed Urinary Incontinence (MUI)	6-12	20-30 mins / 2-3 times per week	Maximum intensity up to patient tolerance, multi-step treatment at 10-35 Hz frequency	IntimaWave seat and back applicators / single or simultaneous program possible
Postpartum Pelvic Floor Strengthening	6-12	30 mins / 2-3 times per week	Maximum intensity up to patient tolerance, multi-step treatment at 10-35 Hz frequency	IntimaWave seat applicator
Fecal Incontinence	6-12	30 mins / 2-3 times per week	Maximum intensity up to patient tolerance, multi-step treatment at 5-35 Hz frequency	IntimaWave seat applicator
Acute Pain	6-10	15 mins / 2-3 times per week	Maximum intensity up to patient tolerance / multi step procedure at 3-15 Hz frequency	IntimaWave seat and back applicators / single or simultaneous program possible
Chronic Pain	6-10	15 mins / 2-3 times per week	Maximum intensity up to patient tolerance / multi step treatment at 8-50 Hz frequency	IntimaWave seat and back applicators / single or simultaneous program possible
Pelvic Organ Prolapse (Mild)	8-12	30 mins / 2-3 times per week	Maximum intensity up to patient tolerance, multi-step treatment at 10-35 Hz frequency	IntimaWave seat applicator
Back Strengthening	4-10	30 mins / 2-3 times per week	Maximum intensity up to patient tolerance , multi-step treatment at 30-45 Hz frequency	IntimaWave back applicator

TightWave® manual applicator

Condition	Sessions	Duration / treatment frequency	Stimulation	Active applicator
Muscle Strengthening	4-10	30 mins / 2-3 times per week	Maximum intensity up to patient tolerance / multi-step treatment at 30-45 Hz frequency	Manual applicators
Muscle Strengthening - Twin mode	4-10	20-30mins / 2-3 times per week	Maximum intensity up to patient tolerance / multi-step treatment at 30-45 Hz frequency	Manual applicators / simultaneous program
Acute Pain	6-10	15 mins / 2-3 times per week	Maximum intensity up to patient tolerance / multi step treatment at 3-15 Hz frequency	Manual applicators / single or simultaneous program possible
Chronic Pain	6-10	15 mins / 2-3 times per week	Maximum intensity up to patient tolerance / multi step treatment at 8-30 Hz frequency	Manual applicators / single or simultaneous program possible

Combined IntimaWave® chair and TightWave® manual applicator

Condition	Sessions	Duration / treatment frequency	Stimulation	Active applicator
Quattro Total Core Strengthening - abs, back and pelvic floor	4-10	30 mins / 2-3 times per week	Maximum intensity up to patient tolerance / multi-step treatment at 30-45 Hz frequency	Chair seat and back applicators + manual applicators