Gazelle™ Clinical Bibliography

Executive Evidence Summary & Full Reference Appendix

Important Notice & Disclaimer

This document is provided for educational, informational, and professional review purposes only. It summarizes published research related to electromagnetic pelvic floor stimulation and associated neuromuscular applications.

This material does not constitute medical advice and does not replace independent clinical judgment. Healthcare providers must comply with all applicable regulatory and professional requirements.

This appendix is intended for scientific reference, provider education, and professional evaluation.

Executive Clinical Evidence Summary

• More than two decades of peer-reviewed research support electromagnetic pelvic floor stimulation for urinary incontinence and pelvic floor dysfunction.

• Randomized and sham-controlled trials demonstrate statistically significant improvements versus placebo.

• Objective urodynamic outcomes include increased urethral closure pressure and inhibition of detrusor overactivity.

• Comparative studies show magnetic stimulation achieves neuromuscular activation comparable or superior to electrical stimulation, with improved patient comfort.

Pelvic Floor & Urinary Incontinence — Human Clinical Studies

Sheriff MK et al., 1996
Neuromodulation of detrusor hyper-reflexia by functional magnetic stimulation of the sacral nerve roots.
[link] View source

McFarlane JP et al., 1997
Acute suppression of idiopathic detrusor instability with magnetic stimulation.
[link] View source

Ishikawa N et al., 1998
Development of a non-invasive functional continuous magnetic stimulator for urinary incontinence.
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Galloway NTM et al., 1999
Extracorporeal magnetic therapy for stress urinary incontinence.
[link] View source

Yamanishi T et al., 1999
Effect of functional continuous magnetic stimulation on urethral closure.
[link] View source

Sand P et al., 1999
Factors influencing success with ExMI treatment of mixed urinary incontinence.
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Galloway NTM et al., 2000
Update on extracorporeal magnetic innervation therapy.
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Fujishiro T et al., 2000
Sacral root magnetic stimulation: placebo-controlled trial.
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Yamanishi T et al., 2000
Comparative magnetic vs electrical stimulation on detrusor overactivity.
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Goldberg RP & Sand PK, 2000
Electromagnetic pelvic floor stimulation: clinical applications.
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Weber-Rajek M et al., 2020
Pelvic floor muscle training vs extracorporeal magnetic innervation: randomized controlled trial.
[link] View source

Rehabilitation & Neuromuscular Human Studies

Olney RK et al., 1990
Comparison of magnetic and electrical stimulation of peripheral nerves.
[link] View source

Laghi F et al., 1996
Magnetic vs electrical phrenic nerve stimulation.
[link] View source

Lin VW et al., 1998
Functional magnetic stimulation restoring cough in tetraplegia.
[link] View source

Polkey MI et al., 1999
Functional magnetic stimulation of abdominal muscles.
[link] View source

Lin VW et al., 2001
Functional magnetic stimulation of the colon.
[link] View source

Mador MJ et al., 2002
Magnetic phrenic nerve stimulation to detect diaphragmatic fatigue.
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Mechanistic, Cellular & Animal Studies

Watanabe H et al., 1998
Tissue effects of magnetic coil stimulation.
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Dawson TW et al., 1998
Magnetic vs electric field induction.
[link] View source

Yamanishi T et al., 1999
Magnetic inhibition of bladder contraction.
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Battocletti JH et al., 2000
Pulsed magnetic fields and axon outgrowth.
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Hausmann A et al., 2001
c-fos induction via magnetic stimulation.
[link] View source

Liboff AR & Jenrow KA, 2002
Physical mechanisms of neuro-electromagnetic therapies.
[link] View source