

Characteristics of excluded studies [ordered by study ID]

Study	Reason for exclusion
<u>Chase</u> <u>2005</u> [2]	<p>This was a single-group pilot study of eight children (7-16 years) assessing the effects of TESIC in children who had chronic treatment-resistant constipation and soiling who had failed various treatment options</p> <p>Excluded on the basis of study design</p>
<u>Chase</u> <u>2009</u> [3]	<p>This was a non-randomised pilot study that assessed the effectiveness of daily home TESIC in improving the bowel habits of children with slow-transit constipation</p> <p>This study recruited children who were poor responders in a previous RCT on TESIC and slow-transit constipation</p> <p>Excluded on the basis of study design</p>
<u>Clarke</u> <u>2012</u> [4]	<p>This was a non-randomised single-group before-and-after study evaluating the colonic propagating sequence of a group of children with slow-transit-constipation following the application of TESIC</p> <p>Excluded on the basis of study design</p>
<u>Dwyer</u> <u>2014</u> [5]	<p>A prospective cohort study that evaluated the use of sacral neuro-modulation in children with dysfunctional elimination syndrome, which included bowel or bladder dysfunction</p> <p>Excluded on the basis on study design and population assessed</p>
<u>Ismail</u> <u>2009</u> [3]	<p>A non-randomised follow-up study that evaluated the effectiveness of daily TES application at home in participants who responded poorly to thrice-weekly application of TES in an RCT</p> <p>Excluded on the basis of study design</p>
<u>Moeller</u> <u>2015</u> [1]	<p>A randomised double-blind controlled trial that evaluated the acute effect of transcutaneous electrical nerve stimulation on rectal motility in children with overactive bladder</p> <p>Excluded on the basis of population</p>
<u>Thomas</u> <u>2013</u> [6]	<p>A literature review assessing the effect of sacral nerve stimulation in adults and children with slow-transit constipation</p> <p>Excluded on the basis of article type</p>
<u>Iacona</u> <u>2019</u> [12]	<p>A systematic review of the literature on the use of neuromodulation in children for constipation and soiling refractory to medical treatment.</p> <p>Excluded based on article type</p>

Study	Reason for exclusion
<u>R. T. Ng 2016 [13]</u>	<p>A systematic review of the literature evaluating the efficacy and safety of TENS (Transcutaneous electrical nerve stimulation) when used to improve bowel function and constipation-related symptoms in children with constipation.</p> <p>Excluded based on article type</p>
<u>Yik 2012a [7]</u>	<p>This was a non-randomised single-group before-and-after study that evaluated the colonic propagating sequence of a group of children with slow-transit-constipation following the application of TESIC</p> <p>Excluded on the basis of study design</p>
<u>Yik 2012b [8]</u>	<p>This was a non-randomised single-group before-and-after study that evaluated the clinical symptoms of a group of children with slow-transit-constipation following the application of daily TES at home in addition to laxative treatment</p> <p>Excluded on the basis of study design</p>
<u>Yik 2012c [9]</u>	<p>This retrospective audit aimed to determine if TES use affected appendicostomy formation rates</p> <p>Excluded on the basis of study design</p>
<u>Yik 2013a [10]</u>	<p>A single-group before-and-after study that assessed the effects of TES delivered initially in the physical therapist's clinic for 4 weeks then at home in 62 children with clinical symptoms related to constipation</p> <p>Published in abstract form</p> <p>Excluded on the basis of study design</p>
<u>Yik 2013b [11]</u>	<p>A single-group non-comparative study that assessed the effects of TES initially at physical therapist's clinic for 4 weeks then at home for 3-6 months in 62 children with clinical symptoms related to constipation</p> <p>Published in abstract form</p> <p>The data set reported were similar to (<u>Yik 2013a</u>)</p> <p>Excluded on the basis of study design</p>

TESIC: transcutaneous electrical stimulation using interferential current.

TES: transcutaneous electrical stimulation.

References to studies excluded from this review

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