

# **Ultrasound and shock-wave stimulation to promote axonal regeneration following nerve surgery: a systematic review and meta-analysis of preclinical studies**

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## **Supplemental Material**

### **Excluded studies**

We excluded a total of six studies after review of the full-text articles due to non-standardized injury models or insufficient data reporting. The detailed exclusion criteria are listed in the supplementary table one.

### **Search strategy**

Database: PubMed, date of the last search: 3<sup>rd</sup> October 2016

1. "peripheral nerves"[MeSH Terms]
2. nerve recover\*
3. "nerve repair"
4. "nerve crush"
5. nerve lesion\*
6. "nerve regeneration"
7. nerve injur\*
8. axotom\*
9. nerve degeneration[MeSH Terms]
10. nerve regeneration[MeSH Terms]
11. nerve crush[MeSH Terms]

12. "axotomy"[MeSH Terms]
13. peripheral nerve injury[MeSH Terms]
14. "Mononeuropathies"[Mesh]
15. #1 - #14 OR
16. ultrasound therap\*
17. ultrasound stimul\*
18. therapeutic ultrasonograph\*
19. therapeutic ultrasound\*
20. low intensity ultrasound\*
21. pulsed ultrasound\*
22. eswt
23. shockwave\*
24. shock wave\*
25. lius
26. lipus
27. "high energy shock waves/therapeutic use"[MeSH Terms]
28. "ultrasonography/therapeutic use"[MeSH Terms]
29. "ultrasonography/therapy"[MeSH Terms]
30. "ultrasonic waves/therapeutic use"[MeSH Terms]
31. "ultrasonics/therapy"[MeSH Terms]
32. "ultrasonics/therapeutic use"[MeSH Terms]
33. ultrasonic therapy[MeSH Terms]
34. #16 - #33 OR
35. #15 AND #34
36. Animals[Mesh:noexp]
37. #35 AND #36

## Supplementary Tables

Study	Reasons for exclusion
Chen 2010 <sup>41</sup>	Similar data set to previous publication
Crisci 2002 <sup>42</sup>	Incomplete data reporting and inappropriate outcome assessment
Hong 1988 <sup>65</sup>	Non-randomized allocation of heterogenic animals, non-standard injury models, high dropout rate and ultrasound application without coupling medium
Mense 2013 <sup>66</sup>	Reported none of the predefined outcomes of interest
Oliveira 2012 <sup>67</sup>	Incomplete data reporting, non-standardized nerve injury model, non-standardized measurement procedures and duration of experiments

**Supplementary Table 1. Excluded studies.** List of all studies excluded from the analyses following full-text assessment, and the underlying detailed exclusion criteria.