

# Clinical trials of spinal cord stimulation for stable angina in patients with severe/refractory angina pectoris

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## 1 spinal cord stimulation

| Trial   | Treatments  | Patients  | Trials design and methods  |
|---|---|---|----------------------------|
| <b>spinal cord stimulation vs no spinal cord stimulation</b>                      |   |   |                            |
| de Jongste , 1994<br>n=8/9<br>follow-up: 8 weeks                                  | spinal cord stimulation<br>versus<br>control  | patients with intractable angina pectoris   | Parallel groups<br>open    |
| Lanza , 2005<br>n=10/10<br>follow-up: 8 mo (median)                               | spinal cord stimulation<br>versus<br>no spinal cord stimulation                         | patients with cardiac syndrome X  | Cross over<br>open         |
| <b>spinal cord stimulation vs placebo</b>   |   |   |                            |
| Eddicks , 2007<br>n=12/12<br>follow-up: 4 weeks                                   | Spinal cord stimulation<br>versus<br>placebo  | patients with refractory angina   | Cross over<br>double blind |
| <b>spinal cord stimulation vs coronary artery bypass grafting</b>                 |   |   |                            |
| ESBY , 1998<br>n=53/51<br>follow-up: 6 mo (2y)                                    | Spinal cord stimulation<br>versus<br>coronary artery bypass grafting                    | patients with severe angina pectoris  | Parallel groups<br>open    |
| <b>spinal cord stimulation vs percutaneous myocardial laser revascularization</b> |   |   |                            |
| SPiRiT , 2006<br>n=34/34<br>follow-up: 12 mo                                      | spinal cord stimulation<br>versus<br>percutaneous myocardial laser<br>revascularization | Subjects with Canadian Cardiovascular<br>Society class 3/4 angina and reversible<br>perfusion defects | open                       |

## References

### de Jongste , 1994:

de Jongste MJ, Hautvast RW, Hillege HL, Lie KI Efficacy of spinal cord stimulation as adjuvant therapy for intractable angina pectoris: a prospective, randomized clinical study. Working Group on Neurocardiology. J Am Coll Cardiol 1994;23:1592-7 [8195519]

Jessurun GA, DeJongste MJ, Hautvast RW, Tio RA, Brouwer J, van Lelieveld S, Crijns HJ Clinical follow-up after cessation of chronic electrical neuromodulation in patients with severe coronary artery disease: a prospective randomized controlled study on putative involvement of sympathetic activity. Pacing Clin Electrophysiol 1999;22:1432-9 [10588144]

### Lanza, 2005:

Lanza GA, Sestito A, Sgueglia GA, Infusino F, Papacci F, Visocchi M, Ierardi C, Meglio M, Bellocchi F, Crea F Effect of spinal cord stimulation on spontaneous and stress-induced angina and 'ischemia-like' ST-segment depression in patients with cardiac syndrome X. Eur Heart J 2005;26:983-9 [15642701]

### Eddicks, 2007:

Eddicks S, Maier-Hauff K, Schenk M, Mller A, Baumann G, Theres H Thoracic spinal cord stimulation improves functional status and relieves symptoms in patients with refractory angina pectoris: the first placebo-controlled randomised study. Heart 2007;93:585-90 [17237126]

### **ESBY, 1998:**

Mannheimer C, Eliasson T, Augustinsson LE, Blomstrand C, Emanuelsson H, Larsson S, Norrsell H, Hjalmarsson A Electrical stimulation versus coronary artery bypass surgery in severe angina pectoris: the ESBY study. *Circulation* 1998;97:1157-63 [[9537342](#)]

Andrill P, Ekre O, Eliasson T, Blomstrand C, Brjesson M, Nilsson M, Mannheimer C Cost-effectiveness of spinal cord stimulation versus coronary artery bypass grafting in patients with severe angina pectoris—long-term results from the ESBY study. *Cardiology* 2003;99:20-4 [[12589118](#)]

Norrsell H, Pilhall M, Eliasson T, Mannheimer C Effects of spinal cord stimulation and coronary artery bypass grafting on myocardial ischemia and heart rate variability: further results from the ESBY study. *Cardiology* 2000;94:12-8 [[11111139](#)]

Ekre O, Eliasson T, Norrsell H, Whrborg P, Mannheimer C Long-term effects of spinal cord stimulation and coronary artery bypass grafting on quality of life and survival in the ESBY study. *Eur Heart J* 2002;23:1938-45 [[12473256](#)]

### **SPIRIT, 2006:**

McNab D, Khan SN, Sharples LD, Ryan JY, Freeman C, Caine N, Tait S, Hardy I, Schofield PM An open label, single-centre, randomized trial of spinal cord stimulation vs. percutaneous myocardial laser revascularization in patients with refractory angina pectoris: the SPiRiT trial. *Eur Heart J* 2006;27:1048-53 [[16554313](#)]

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Rigorous meta-analysis method is used to populate TrialResults-center: widespread search of published and non published trials, study selection using pre-specified criteria, data extraction using standard form.

TrialResults-center is continually updated on a weekly basis. We continually search all new results (whatever their publication channel) and these news results are immediately added to the database with a maximum of 1 week.

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