

Postural Reconstruction Physiotherapy. A Short Review.

by
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Postural Reconstruction Physiotherapy.

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Background:

In early August 2006, the WorkSafeBC Evidence Based Practice Group received a request to investigate the effectiveness of postural reconstruction, a particular physiotherapy method used in rehabilitating patients with post laminectomy pain syndrome.

Postural Reconstruction (PR) is a physiotherapy based approach that is aimed at reducing excess muscle tone in the muscular chains^(1,2). The proposed underlying theory is based on:

- Anatomic observation shows that certain muscles are organized in chains. These 'chains' consist of a set of multi-articular muscles oriented in the same direction, overlapping like tiles on a roof. Under these conditions, all elements of this chain are felt to be interdependent making for a more 'powerful' whole.
- There are 4 muscle chains in the human body which are located (mostly) posteriorly. Because they are constantly used in daily living, these chains continue to strengthen and to shorten.
- The shortening of the muscle chains, rather than the inability to stand up to gravity, is the main cause of deformations (such as scoliosis being the most apparent) and of structural alterations (such as arthritis).
- As such, it is important to overcome this shortening of the muscle chains. It is theorized that minimizing muscle shortening helps to relieve pain of the human locomotor system⁽¹⁾.

The concept of PR was developed by Françoise Mézières, a French physiotherapist, in 1940. She died in 1991⁽³⁾. Since 1992 PR is taught in Europe at the Institute of Postural Reconstruction and the Louis Pasteur Science University of Strasbourg, France^(1,2). At present, the principal proponents of PR in France are Dr. Michel Jesel, Christian Callens and Michaël Nisand⁽¹⁾.

It should be noted that PR sessions involve holding postures during free, deep, rhythmic exhalations with the mouth open wide. Each posture is constructed and elaborated by the physiotherapist according to the patient's deformation and defense mechanisms. Most importantly, it is claimed that, no two patients will have identical sessions, and no two sessions will be identical for any one patient⁽¹⁾.

Questions:

- Is postural reconstruction (PR) effective in treating rehabilitating patients with post laminectomy pain syndrome or chronic low back pain in general.

Methods:

Systematic Literature searches, up to August 4, 2006, were undertaken on Ovid[®] based commercial medical literature databases that include Cochrane Database of Systematic Review, American College of Physician Journal Club, Database of Abstracts of Review of Effectiveness, Cochrane Controlled Trial Registry, BIOSIS[®], CINAHL[®], EMBASE[®], MEDLINE[®] In-Process, Other Non-Indexed Citations and MEDLINE[®]. Broad searches were undertaken by employing a combination of keywords (postural reconstruction physical therapy OR postural reconstruction physiotherapy). Broad searches by employing authors name (jesel m OR callens c OR nisand m) were also undertaken. These searches were limited to human subjects. The searches were not limited to any study designs or language. The same searches were also undertaken in the PEDro (<http://www.pedro.fhs.usyd.edu.au/>) physiotherapy evidence database residing at the Faculty of Health Sciences, University of Sydney, NSW, Australia. Recognizing that very little academic/peer reviewed literature was likely going to be retrieved via the above academic search engines, we expanded the search into non academic/grey literature via Google Scholar (<http://scholar.google.com/>). The search was undertaken by employing the keyword postural

reconstruction physical therapy OR postural reconstruction physiotherapy. Further, articles found in the websites of the <http://www.reconstruction-posturale.com/fr/documentation/bibliographie.php> (6 French language articles) were also downloaded and examined.

Results:

- Systematic literature searches conducted on Ovid® database found 123 articles⁽⁴⁻¹²⁶⁾. Upon examination of the abstracts and/or title, none of these articles discussed PR.
- Systematic literature searches conducted on PEDro database failed to identify any published manuscripts.
- Google scholar identified > 3850 websites. Recognizing that key word combinations/permutations result in the most relevant being displayed 'at the top', we reviewed the first 100 of these websites. An abstract by Patterson D and Chenier S⁽²⁾ was found among these articles. This abstract will be presented at the Canadian Physiotherapy Association - Orthopaedic Division, 18th Annual National Symposium, Calgary, Alberta on Oct 13 - 15, 2006. In this abstract, Patterson and Chenier describe the method of PR physiotherapy.
- 6 articles⁽¹²⁷⁻¹³²⁾ downloaded from the <http://www.reconstruction-posturale.com/fr/documentation/bibliographie.php> did not provide any data either.

Conclusions:

At present, there is no published literature that shows the effectiveness of Postural Reconstruction Physiotherapy, alone or in comparison with other physiotherapy methods or other treatments, in treating chronic low back pain, including post laminectomy pain syndrome.

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