



## Guideline Summary NGC-7127

### Guideline Title

Chiropractic management of low back disorders: report from a consensus process.

### Bibliographic Source(s)

Globe GA, Morris CE, Whalen WM, Farabaugh RJ, Hawk C, Council on Chiropractic Guidelines and Practice Parameter. Chiropractic management of low back disorders: report from a consensus process. J Manipulative Physiol Ther 2008

Nov-Dec; 31(9):651-8. [9 references] [PubMed](#)

### Guideline Status

This is the current release of the guideline.

### Scope

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#### Disease/Condition(s)

- Low back pain (acute, subacute, chronic, or recurrent/flare-up)
- Low back-related leg pain

#### Guideline Category

Management

Rehabilitation

Treatment

#### Clinical Specialty

Chiropractic

Physical Medicine and Rehabilitation

#### Intended Users

Chiropractors

Occupational Therapists

Physical Therapists

#### Guideline Objective(s)

- To provide a broad-based consensus of chiropractic research and clinical experts representing mainstream chiropractic practice into a practical document designed to provide standardized parameters of care
- To further define and clarify the clinical application of research from a chiropractic evidence-influenced perspective, using a consensus process with a national panel of chiropractic clinical experts

#### Target Population

Patients with low back pain (LBP) and related disorders

#### Interventions and Practices Considered

1. Informed consent
2. Patient history
3. Classification of illness according to severity (i.e., acute, subacute, chronic, recurrent)
4. Initial course of treatment including spinal manipulation, mobilization, and exercise
5. Reevaluation using pain scales, pain diagrams, disability questionnaires, etc.
6. Continuing course of treatment
7. Referral for co-management of symptoms with medication if indicated

#### Major Outcomes Considered

- Pain
- Activities of daily living
- Work capacity
- Functional capacity

### Methodology

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## Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

## Description of Methods Used to Collect/Select the Evidence

### Identification and Retrieval

The domain for this report is that of low back pain (LBP) and low back-related leg symptoms. Using surveys of the profession and publications on practice audits, the team selected the topics for review by this iteration.

Topics were selected based on the most common disorders seen and most common classifications of treatments used by chiropractors based on the literature. Material for review was obtained through formal hand searches of published literature and of electronic databases, with assistance from professional chiropractic college librarians. A search strategy was developed, based upon the Cochrane Working Group for Low Back Pain. Randomized controlled trials (RCTs), systematic reviews/meta-analyses, and guidelines published through 2006 were included; all other types of studies were included through 2004. Invitations to submit relevant articles were extended to the profession via widely distributed professional news and association media. Searches focused on guidelines, meta-analyses, systematic reviews, randomized clinical trials, cohort studies, and case series.

## Number of Source Documents

A total of 12 guidelines, 64 randomized controlled trials (RCTs,) 20 systematic reviews/meta-analyses, and 12 cohort studies were included.

## Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

## Rating Scheme for the Strength of the Evidence

**GRADE A:** Good evidence from relevant studies

- Studies with appropriate designs and sufficient strength to answer the questions
- Results are both clinically important and consistent with minor exceptions at most.
- Results are free of significant doubts about generalizability, bias, and design flaws.
- Negative studies have sufficiently large sample sizes to have adequate statistical power.

**GRADE B:** Fair evidence from relevant studies.

- Studies of appropriate designs of sufficient strength, but inconsistencies or minor doubts about generalizability, bias and design flaws, or adequacy of sample size
- Evidence solely from weaker designs, but confirmed in separate studies

**GRADE C:** Limited evidence from studies/reviews

- Studies with substantial uncertainty due to design flaws, or adequacy of sample size
- Limited number of studies weak design for answering the question addressed

**GRADE I:** No recommendation can be made because of insufficient or non-relevant evidence.

- No evidence that directly pertains to the addressed question either because studies have not been performed or published, or are nonrelevant.

## Methods Used to Analyze the Evidence

Systematic Review with Evidence Tables

## Description of the Methods Used to Analyze the Evidence

### Evaluation of the Evidence

Standardized and validated instruments used by the Scottish Intercollegiate Guidelines Network were used to evaluate randomized controlled trials (RCTs) and systematic reviews. For guidelines, the Appraisal of Guidelines for Research and Evaluation instrument was used. A standardized method for grading the strength of the evidence was used (see the "Rating Scheme for the Strength of the Evidence" field). Each team's multidisciplinary panel conducted the review and evaluation of the evidence.

Search results were sorted into related topic groups as follows: RCTs of low back pain (LBP) and manipulation; randomized trials of other interventions for LBP; guidelines; systematic reviews and meta-analyses; basic science; diagnostic-related articles; methodology; cognitive therapy and psychosocial issues; cohort and outcome studies; and others. Each group was subdivided by topic so that team members received approximately equal numbers of articles from each group, chosen randomly for distribution. On the basis of the Council on Chiropractic Guidelines and Practice Parameters (CCGPP) formation of an iterative process and the volume of work available, the team elected to limit consideration in this first iteration to guidelines, systematic reviews, meta-analyses, RCTs, and cohort studies.

### Use of Evidence Tables

Evidence tables for RCTs rated by the team were constructed using categorical information shown reliable in other studies. Templates were provided to each team member for recording this information during the course of their review.

## Methods Used to Formulate the Recommendations

Expert Consensus (Delphi)

### Description of Methods Used to Formulate the Recommendations

Development of the document began with seed materials from which seed statements were distilled. These were circulated electronically to the Delphi panel until consensus was reached.

#### Seed Document Identification

Seed documents were collected for distribution to the Delphi panelists as background material. The full texts of the following documents were provided to all Delphi panelists: the Council on Chiropractic Guidelines and Practice Parameters (CCGPP) Low Back literature synthesis, the clinical practice guidelines on low back pain from the American College of Physicians and the American Pain Society, and the 2008 "Evidence-informed management of chronic low back pain with spinal manipulation and mobilization" article in the *Spine Journal*.

#### Seed Statement Development

Seed statements were developed by a separate committee, addressing treatment frequency, intensity, and duration of chiropractic care for acute and chronic low back pain (LBP), process of care, documentation of therapeutic response, consideration of complicating factors, safety considerations, and other aspects of appropriate chiropractic practice. The seed document committee was appointed by the CCGPP Executive Committee, based on clinical experience, knowledge of the scientific literature, and experience in preparing documents. Representatives of the CCGPP Scientific Commission also reviewed and critiqued the seed statements, as independent reviewers, and the document was revised as per their comments before circulation to the Delphi panel.

#### Selection and Composition of the Delphi Panel

The CCGPP asked the Congress of Chiropractic State Associations and other interested stakeholders including all chiropractic professional organizations to submit nominations for members from the field. Representation of all stakeholders was felt to be essential. Efforts were made to include a broad representation of the profession in terms of chiropractic college of graduation, geographic location, practice characteristics (such as chiropractic technique and use of modalities and other ancillary procedures), and spectrum of practice, from broad scope to focused scope. A public representative was also invited to participate in the process. Multidisciplinary input was encouraged. A selection committee, composed of representatives of the CCGPP and the Scientific Commission, reviewed nominations to ensure that the panelists were highly experienced in clinical practice and represented a broad spectrum of US doctors of chiropractic (DCs).

#### Method for Conduct of Delphi Rounds

The Delphi process followed established methodology and was conducted in early 2008, as follows: The project director, Chair of the Scientific Commission of CCGPP, conducted Delphi rounds by electronic mail. The RAND/University of California at Los Angeles (UCLA) method for rating appropriateness was used, as follows: for each of 27 seed statements, panelists were asked to indicate the appropriateness of the procedure or practice described. "Appropriateness" indicated that the expected health benefit to the patient exceeds the expected negative consequences by a sufficiently wide margin that it is worth doing, exclusive of cost. A scale of 1 to 9 (highly inappropriate to highly appropriate) was provided, where 1 to 3 were scored as "inappropriate," 4 to 6 as "undecided," and 7 to 9 as "appropriate." Panelists were instructed to provide specific reasons for "inappropriate" ratings, providing a citation from the peer-reviewed literature to support it, if such exists. In analyzing the responses, agreement on appropriateness was considered to be present if at least 80% of panelists marked 7, 8, or 9 and the median response score was 7 to 9.

#### Results of Delphi Rounds

For the first Delphi round, 27 seed statements were sent to 40 panelists. Thirty-nine of 40 responded, after 4 email reminders. The median ratings were within the "appropriate" category, with 80% agreement, for 24 statements. For 3 statements, the median ratings were in the appropriate category, but there was only approximately 70% agreement, which fell short of the 80% established at the outset as the requirement for consensus. All panelists' comments and ratings were sent to the seed document committee, who provided the panel with explanatory discussion and revision for the 3 statements on which there was no consensus. This, along with all panelists' comments, was sent back to the panelists for additional deliberation.

On the second round, 36 of 40 panelists responded, after 4 reminders, with median ratings in the appropriate category and 80% agreement. Consensus was therefore considered to have been reached, and no additional Delphi rounds were conducted. All comments and ratings were sent to the seed document committee to consider when developing this document, based on the seed statements.

### Rating Scheme for the Strength of the Recommendations

Not applicable

### Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

### Method of Guideline Validation

External Peer Review

Internal Peer Review

### Description of Method of Guideline Validation

Stakeholder Review and Implementation

Stakeholders for the low back and related lower extremity symptoms are considered to include doctors of chiropractic, students and prospective students, educators and teaching institutions, professional organizations and agencies, third party payers, governmental agencies, and patients.

Two strategies were used to reach stakeholders for review and comment on the document itself. On completion of the draft document of best practices, a summary of the best practices document was posted on a widely accessed health care Web site (<http://www.spine-health.com/> ) that experienced a public hit rate of 2.5 to 3.0 million per month during 2005. Separately, on the Council on Chiropractic Guidelines and Practice Parameters (CCGPP) Web site, the document was posted and notification made to colleges, state and national associations, and third-party payers.

Interactive electronic questionnaires, developed by the Dissemination, Implementation, Evaluation, and Review (DIER) committee of CCGPP, are available for stakeholder comments online. Those choosing to comment are invited to submit documentation for their opinions directly to CCGPP. The postings will be maintained for 60 days and comments harvested electronically and provided to the cochair of the commission. The cochair will group similar comments and develop summary questions that will be posted, with the original comments and any supportive documentation, to the team for review and response. A tally of comments by group along with the questions and responses from the team will be made a part of the Appendix in the final document release.

The final document will include any changes in conclusions of the team made in response to stakeholder input.

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## Recommendations

### Major Recommendations

#### Summary of Recommendations

The Scientific Commission of the Council on Chiropractic Guidelines and Practice Parameters (CCGPP) recently completed a thorough synthesis of the available literature regarding chiropractic treatment of low back disorders. The following is a summary of conclusions from this document:

#### Spinal Manipulation/Mobilization

1. For acute and subacute low back pain (LBP), strong evidence supports the use of spinal manipulation to reduce symptoms and improve function.
2. There is good evidence that the use of exercise in conjunction with manipulation is likely to speed and improve outcomes, as well as minimize episodic recurrence.
3. There is fair evidence for the use of manipulation for patients with LBP and radiating leg pain, sciatica, or radiculopathy; manipulation in combination with other common forms of therapy may be of clinical value.
4. Cases with high severity of symptoms may benefit by referral for co-management of symptoms with medication.
5. For chronic LBP, strong evidence supports the use of spinal manipulation/mobilization to reduce symptoms and improve function.

#### Exercise

1. For acute LBP, there is evidence that exercises are not more effective than other conservative interventions.
2. For subacute LBP, moderate evidence supports use of a graded-activity exercise program in occupational settings, although the effectiveness for other types of exercise therapy in other populations is unclear.
3. In chronic LBP, there is strong evidence that exercise is at least as effective as other conservative treatments. Individually designed strengthening or stabilizing programs appear to be effective in health care settings.

#### Clinical Algorithm(s)

None provided

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## Evidence Supporting the Recommendations

### Type of Evidence Supporting the Recommendations

The type of supporting evidence is not specifically stated for each recommendation.

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## Benefits/Harms of Implementing the Guideline Recommendations

### Potential Benefits

Appropriate management of acute and chronic low back pain resulting in reduced symptoms and improved function

### Potential Harms

Not stated

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## Contraindications

### Contraindications

Contraindications for High-Velocity Manipulation Therapies on the Lumbar Spine (Red Flags)

#### *Osseous Conditions*

- Region of local unstable fractures
- Severe osteoporosis
- Multiple myeloma
- Osteomyelitis
- Local primary bone tumors where osseous integrity is in question
- Local metastatic bone tumors
- Paget's disease

#### *Neurologic Conditions*

- Progressive or sudden (i.e., cauda equine syndrome) neurologic deficit
- Spinal cord tumors that clinically demonstrate neurological compromise or require specialty referral. In cases where the neoplasm has been properly assessed and is considered to be clinically quiescent and/or perhaps distant to therapeutic target site, then chiropractic manipulative therapy may be utilized.

#### *Inflammatory Conditions*

- Rheumatoid arthritis in the active systemic, stage, or locally in the presence of inflammation or atlantoaxial instability
- Inflammatory phase of ankylosing spondylitis
- Inflammatory phase of psoriatic arthritis
- Reactive arthritis (Reiter's syndrome)

#### *Bleeding Disorder*

- Unstable congenital bleeding disorders, typically requiring specialty co-management
- Unstable acquired bleeding disorders, typically requiring specialty co-management
- Unstable abdominal aortic aneurysm

#### *Other*

- Structural instability (e.g., unstable spondylolisthesis)
- Inadequate physical examination
- Inadequate manipulative training and skills

#### **Conditions Contraindicating Certain Chiropractic-Directed Treatments Such as Spinal Manipulation and Passive Therapy**

Generally the procedure or therapy is contraindicated over the relevant anatomy and not necessarily contraindicated for other areas:

- Local open wound or burn
- Prolonged bleeding time/hemophilia
- Artificial joint implants
- Pacemaker (contraindicated modality-electrotherapy)
- Joint infection
- Tumors/cancer
- Recent/healing fracture
- Increasing neurologic deficit

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## Implementation of the Guideline

### **Description of Implementation Strategy**

An implementation strategy was not provided.

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## Institute of Medicine (IOM) National Healthcare Quality Report Categories

### **IOM Care Need**

Getting Better

Living with Illness

### **IOM Domain**

Effectiveness

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## Identifying Information and Availability

## Bibliographic Source(s)

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Nov-Dec; 31(9):651-8. [9 references] [PubMed](#) 

## Adaptation

Not applicable: The guideline was not adapted from another source.

## Date Released

2008 Nov-Dec

## Guideline Developer(s)

Council on Chiropractic Guidelines & Practice Parameters - Professional Association

## Source(s) of Funding

Council on Chiropractic Guidelines and Practice Parameters (CCGPP)

## Guideline Committee

Not stated

## Composition of Group That Authored the Guideline

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## Financial Disclosures/Conflicts of Interest

All authors, independent reviewers, and panelists participated without compensation from any organization. Cleveland Chiropractic College made an in-kind contribution to the project by allowing Drs Globe and Hawk to devote a portion of their work time to this project.

## Guideline Status

This is the current release of the guideline.

## Guideline Availability

Electronic copies: Available from the [Council on Chiropractic Guidelines and Practice Parameters \(CCGPP\) Web site](#) .

Print copies: Submit requests to the Council on Chiropractic Guidelines and Practice Parameters (CCGPP) Web site:

[www.ccgpp.org](http://www.ccgpp.org) .

## Availability of Companion Documents

The following is available:

- Chiropractic management of low back pain and low back-related leg complaints: a literature synthesis. 2008 Nov-Dec. 16 p. Electronic copies: Available in Portable Document Format (PDF) from the [Council on Chiropractic Guidelines and Practice Parameters \(CCGPP\) Web site](#) .

Print copies: Submit requests to the Council on Chiropractic Guidelines and Practice Parameters (CCGPP) Web

site: [www.ccgpp.org](http://www.ccgpp.org)  or *Journal of Manipulative and Physiological Therapeutics (JMPT)* at [www.jmptonline.org](http://www.jmptonline.org) .

The following are also available:

- Literature syntheses for the Council on Chiropractic Guidelines and Practice Parameters: methodology. 2008 Nov-Dec. 6 p. Electronic copies: Available in Portable Document Format (PDF) from the [Council on Chiropractic Guidelines and Practice Parameters \(CCGPP\) Web site](#) .
- What constitutes evidence for best practice? 2008 Nov-Dec. 7 p. Electronic copies: Available in Portable Document Format (PDF) from the [Council on Chiropractic Guidelines and Practice Parameters \(CCGPP\) Web site](#) .

## Patient Resources

None available

### **NGC Status**

This NGC summary was completed by ECRI Institute on February 1, 2010. The information was verified by the guideline developer on February 19, 2010.

### **Copyright Statement**

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