

## **Chiropractic management of fibromyalgia syndrome: Summary of Clinical Practice Recommendations from the Commission of the Council on Chiropractic Guidelines and Practice Parameters**

### **Process and Methods:**

The Council on Chiropractic Guidelines and Practice Parameters (CCGPP), was formed in 1995 at the behest of the Congress of Chiropractic State Associations (COCSA) and with assistance from the American Chiropractic Association, Association of Chiropractic Colleges, Council on Chiropractic Education, Federation of Chiropractic Licensing Boards, Foundation for the Advancement of Chiropractic Sciences, Foundation for Chiropractic Education and Research, International Chiropractors Association, National Association of Chiropractic Attorneys and the National Institute for Chiropractic Research.

The CCGPP's mission is to provide consistent and widely adopted chiropractic practice information, to perpetually distribute and update these data as necessary, so that consumers and others have reliable information on which to base informed health care decisions. CCGPP was also delegated to examine all existing guidelines, parameters, protocols and best practices in the United States and other nations with a chiropractic lens. Participation and process have been as transparent as possible and a major goal is to represent a diverse cross-section of the profession on the projects that CCGPP has been involved in.

Six members were appointed to represent COCSA. Other members were appointed by the other organizations that created CCGPP. The CCGPP is a steering organization comprised of 21 individuals. 16 are chiropractors with one in education, one in research and 14 in full-time private practice. There is a vendor representative, a representative from chiropractic colleges and attorneys representing the National Association of Chiropractic Attorneys, as well as a public member. A Scientific Commission with several dozen members reports to and is supervised by CCGPP.

CCGPP identifies and evaluates evidence, which is compiled in a summary document for the chiropractic profession and other related stakeholders. The information contained in these documents is a literature synthesis. A literature synthesis is an academically rigorous analysis of all the available scientific literature on a specific topic. Reviewers use internationally accepted tools to rate each article according to specific criteria. These include the type of study (randomized controlled trial, case series, etc), the quality of the study, size of the study and many other factors which influence the credibility and strength of the study's conclusions. Each reviewer independently rates all the available articles, and the ratings are compared among the members of the review team. When there is disagreement among the reviewers regarding the conclusions, a formal consensus process is followed to arrive at an overall conclusion upon which all reviewers can agree. The resulting conclusions do not represent the reviewers' own beliefs but rather what the literature actually supports.

For this document, team efforts in review, rating, and reporting of literature synthesis were guided, as much as possible, by the widely accepted Appraisal of Guidelines for Research and Evaluation process. The main features included (1) review by a panel of experts; (2) detailed topic selection based on literature of most common conditions and procedures; (3) structured instruments for rating the quality of and results from the literature; (4) consensus process

conducted within the team to adjudicate differences in professional opinion; and (5) wide stakeholder review by patients, professionals, policymakers, and third-party payers. As part of the CCGPP process, these articles were posted in draft form for public comment on the CCGPP Web site [www.ccgpp.org](http://www.ccgpp.org) (2006-8) to allow for an open process and the broadest possible mechanism for stakeholder input. For this document, the literature searched extended through 2006.

**Results:**

Our search yielded the following results: 8 systematic reviews, 3 meta-analyses, 5 published guidelines, 1 consensus document. Our direct search of the databases for additional randomized trials did not find any chiropractic RCTs that were not already included in one or more of the systematic reviews/guidelines. The review of the MANTIS and ICL databases yielded an additional 38 articles regarding various non-pharmacological therapies such as chiropractic, acupuncture, nutritional/herbal supplements, massage, etc. Review of these articles resulted in the following clinical practice recommendations regarding non-pharmaceutical treatments of FMS. Strong evidence supports aerobic exercise and cognitive behavioral therapy. Moderate evidence supports massage, muscle strength training, acupuncture, and spa therapy (balneotherapy). Limited evidence supports spinal manipulation, movement/body awareness, and vitamins, herbs, and dietary modification.

*Summary of Clinical Practice Recommendations*

Topic	Conclusion and Strength of Evidence Rating
<b>Fibromyalgia Syndrome (FMS)</b>	
<b>Evaluation</b>	<p><b>RATING A: Pressure Algometry</b></p> <p>There is strong evidence that pressure algometry has high reliability and validity in the assessment of the Tender Points (TePs) found in fibromyalgia syndrome.</p> <p><b>RATING A: Fibromyalgia Impact Questionnaire (FIQ)</b></p> <p>The FIQ has achieved wide recognition as a reliable and valid instrument as part of FMS management and research, and has been translated into several languages.</p>
<b>Manual therapies</b>	<p><b>RATING B: Massage</b></p> <p>There is moderate evidence from several RCTs and one systematic review that massage is helpful in improving sleep and reducing anxiety in chronic pain.</p> <p><b>RATING C: Manipulation</b></p> <p>There is limited evidence consisting of one small chiropractic pilot RCT that manipulation may relieve pain in FMS. The literature also contains two</p>

	chiropractic and two osteopathic manipulation case reports/series.
<b>Exercise</b>	<p><b>RATING A: Aerobic exercise</b></p> <p>There is strong evidence from multiple RCTs / systematic reviews that mild aerobic exercise is helpful in relieving the pain and fatigue associated with FMS.</p> <p><b>RATING B: Muscle strength training</b></p> <p>There is moderate evidence that mild strength training programs are helpful in FMS, however the evidence does not support moderate or heavy intensity strength training for FMS patients.</p> <p><b>RATING C: Movement and body awareness</b></p> <p>There is preliminary evidence from three small RCTs that gentle body awareness exercise methods such as T'ai chi and Qi Gong are helpful with FMS.</p>
<b>Vitamins, herbs, diet modification</b>	<p><b>RATING C: Vitamins, herbs, diet modification</b></p> <p>There are several small RCTs with preliminary evidence showing a potential beneficial effect of these therapies for FMS.</p>
<b>Cognitive Behavioral Therapy</b>	<p><b>RATING A: Cognitive Behavioral Therapy (CBT)</b></p> <p>There are several large RCTs and systematic reviews showing a strong treatment effect of CBT alone, and in combination with exercise and various medications, for the clinical management of FMS symptoms.</p>
<b>Medications**</b>	<p><b>RATING A: Medications</b></p> <p>The medications with the strongest evidence of effectiveness (multiple systematic reviews and RCTs) for FMS are amitriptyline and cyclobenzaprine used alone, or in combination with selective serotonin reuptake inhibitors (SSRIs) or serotonin-norepinephrine reuptake inhibitors (SNRIs). Emerging evidence is for pregabalin, gabapentin, and tramadol. No evidence for NSAIDs or corticosteroids used alone.</p>
<b>Balneotherapy (Spa therapy)</b>	<p><b>RATING B: Balneotherapy</b></p> <p>There is moderate evidence from several consistent RCTs showing reduction of FMS symptoms with hot water/spa treatments.</p>
<b>Acupuncture**</b>	<p><b>RATING B: Acupuncture</b></p> <p>There is one systematic review and one additional RCT that show moderate reduction of pain in FMS patients with acupuncture treatment.</p>

**\*\*Note:** Although prescription medications and acupuncture are outside the scope of chiropractic practice in many jurisdictions, we have included them in the evidence tables due to their popular and widespread usage among FMS patients.

While the recommendations in this document are reflective of the current best available evidence regarding chiropractic intervention for the conditions cited, they are not indicative of the full scope of chiropractic care in these areas. Additional research is recommended to improve the base of evidence for which anecdotal evidence indicates chiropractic intervention may be appropriate.

### **Conclusions:**

The majority of systematic reviews and guidelines all recommend three interventions as having the strongest evidence support: 1) low dose anti-depressant medications; 2) light aerobic exercise and; 3) cognitive behavioral therapy. Moderate evidence supports the use of massage, muscle strength training, acupuncture, and spa therapy (balneotherapy). Limited evidence supports spinal manipulation, movement/body awareness, and vitamins, herbs, and dietary modifications. Presently there is no single therapy or intervention that can be considered a cure for FMS. Combinations of therapies appear to be most helpful, and future research seems to be looking toward strategies by which to find sub-groups of FMS patients who might respond better to certain therapies. Our project stopped searching the literature as of June 2006, and newer evidence has surfaced since that time. The most recent studies would include the EULAR evidence-based recommendations for the management of fibromyalgia syndrome<sup>118</sup> and a recently published narrative review of the mechanisms and pathophysiology of fibromyalgia<sup>120</sup>. These publications continue to provide evidence that FMS is not a peripheral disorder of the soft tissues, but rather a disorder of aberrant pain processing and central sensitization.

### **Supporting documentation for the above recommendations has been published in:**

Schneider M, Vernon H, Ko G, Lawson G, Perera J. Chiropractic management of fibromyalgia syndrome: a systematic review of the literature. *J Manipulative Physiol Ther.* 2009 Jan;32(1):25-40.

<http://download.journals.elsevierhealth.com/pdfs/journals/0161-4754/PIIS0161475408002935.pdf>