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A Summary of a Cochrane Review: Yoga treatment for chronic non-specific low back pain

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1. Introduction

Review authors in the Cochrane Collaboration conducted a review of the effects of yoga for chronic non-specific low back pain. After searching for all relevant studies, they identified 12 studies. In 9 of these studies, people with chronic non-specific low back pain were randomly selected to attend yoga classes or not to attend an exercise class. This summary presents the findings of these studies.

1.1. Yoga and chronic non-specific low back pain

Low back pain is a common health problem that often has no known cause, and is thus classified as non-specific. While low back pain may resolve within a few days or weeks, it sometimes persists for three months or longer, and at that point it is considered chronic. When chronic low back pain is severe it may be disabling, and it is associated with poor quality of life and high medical costs. Back pain is usually treated with non-prescription medication, and exercise is often also recommended for chronic low back pain.

Yoga is a popular mind-body exercise that is sometimes used by people to treat or prevent low back pain. Yoga usually includes physical poses (asanas) and controlled breathing (pranayama), and often also includes a relaxation or meditation component. It is thought that doing yoga could improve flexibility, strength, and body awareness, and promote relaxation and that these effects could lead to less back pain and better quality of life.

2. What does the research say?

Nine studies with a total of 810 people evaluated the effects of yoga compared to not doing yoga or other exercise. In three studies people were randomly selected to attend yoga classes or to stay on a waiting list. In six studies people were randomly selected to attend yoga classes and/or to receive education about back pain and treatments, such as a self-care book. The types of yoga varied but each program was designed for people with low back pain and

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all classes were taught by experienced teachers. The studies provided yoga classes once or twice per week for 6 to 24 weeks.

The evidence from the studies was moderate quality or lower because the people in the studies and the researchers knew whether they were doing yoga or not and this awareness could have affected how well they thought the treatments worked. In addition, the evidence was low quality when there were few people in the studies, or when the results were inconsistent across the studies (see Table 1).

This review shows that yoga treatment of chronic non-specific low back pain may slightly improve back function, and probably slightly reduces pain and probably increases the chances of clinical improvement. But it probably increases adverse events such as back pain in some people. In addition, yoga may have little to no effect on quality of life or depression, but more studies should measure these effects to increase our certainty in this evidence.

3. Where does this information come from?

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Table 1

Effects of yoga on chronic non-specific low back pain at 3 to 4 months

What was measured	Effect when not doing yoga (waiting list or education)	Effect when doing yoga	Quality of the evidence ^a	What happens when doing yoga
Back-specific function (7 studies, 667 people) Measured with the Roland-Morris Disability Questionnaire. Scale from 0 (better)–24 (worse).	Average is 7	On average 2.18 units lower (from 3.60 to 0.76 lower)	⊕⊕⊕⊖ low ¹	Yoga may improve back function slightly.
Pain (5 studies, 458 people) Scale from 0 (better) –100 (worse).	Average is 25	On average 4.55 units lower (from 7.04 to 2.06 lower)	⊕⊕⊕⊖ moderate ²	Yoga probably slightly reduces pain.
Number of people with clinical improvement (3 studies, 168 people)	16 out of 100 people	On average 35 more people (from 14 to 71 more)	⊕⊕⊕⊖ low ³	Yoga may increase the number of people who have clinical improvement.
Physical quality of life (3 studies, 323 people) Measured on the SF-12 physical component scale. Scale from 0 (worse)–100 (better).	Average is 45	On average 2.05 units higher (from 0 to 4.09 higher)	⊕⊕⊕⊖ low ³	Yoga may have little to no effect on physical quality of life.
Mental quality of life (3 studies, 323 participants) Measured on the SF-12 mental component scale. Scale from 0 (worse)–100 (better).	Average is 47	On average 1.97 units higher (from 0.20 lower to 4.04 higher)	⊕⊕⊕⊖ low ³	Yoga may have little to no effect on mental quality of life.
Depression (2 studies, 132 participants) Measured on the Beck Depression Inventory II. Scale from 0 (better)–63 (worse).	Average is 8	On average 0.99 units lower (from 3.22 lower to 1.25 higher)	⊕⊕⊕⊖ low ³	Yoga may have little to no effect on depression.
Adverse events (6 studies, 696 participants)	1 for 100 people	On average 5 more (from 2 to 8 more)	⊕⊕⊕⊖ moderate ²	Yoga probably increases the risk of adverse events. The most common adverse event was increased back pain.

^aDetails about the quality of the evidence: ¹Evidence was low quality because the participants knew what intervention they were receiving, which may have affected their assessment of outcomes, and because the results of the individual studies varied. ²Evidence was moderate quality because the participants knew what intervention they were receiving. ³Evidence was low quality because the participants knew what intervention they were receiving, and because there were few participants in the studies.