

# Non-Opioid Options for Managing Adult Chronic Pain

Canada is in the midst of an opioid crisis. And even with growing awareness of the risks, opioids continue to be used extensively in the management of pain. The *2017 Canadian Guideline for Opioids for Chronic Non-Cancer Pain* recommends optimizing non-opioid pharmacotherapy and non-pharmacological therapy rather than prescribing a trial of opioids for patients with chronic, non-cancer pain (who are not currently taking opioids).

The challenge with this recommendation is knowing what the evidence says about the many different non-opioid options for treating pain. Are they effective? Are they safe? Are they readily available to patients?

To help support decisions about managing pain, CADTH has been reviewing the evidence on different treatment options for various types of pain through our Rapid Response Service. Here, you'll find the highlights of many of these evidence reviews – all in one place.

For more information about CADTH's work related to pain management or opioids, please visit [cadth.ca/pain](https://www.cadth.ca/pain) and [cadth.ca/opioids](https://www.cadth.ca/opioids)

## Summary of Considerations for Practice Legend



- Reasonable amount of evidence (although comparison with opioids may be lacking, making their place in therapy uncertain).
- Evidence indicates that risk of harms is low and/or side effects are mild to moderate.



- Some evidence to indicate effectiveness, but it may be conflicting, mixed, or of lower-quality.
- Evidence on harms is lacking or unclear.






- No evidence, or evidence shows a lack of effectiveness.
- Limited or no evidence on harms.

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## Chronic Neck Pain

| Intervention  | Research Findings   | Limitations  |
|---|---|--|
| <p><b>Manual therapy</b><br/>(manipulation, mobilization)</p>  | <ul style="list-style-type: none"> <li>Overall, the evidence for manual therapy for chronic non-cancer neck pain was mixed, with some studies reporting improved pain, functional status, and health-related quality of life, and other studies reporting no statistically significant differences when compared to sham therapy or no treatment.</li> <li>Manual therapies were reported as well-tolerated, with some participants experiencing mild transient adverse events such as discomfort and tiredness.</li> </ul> | <ul style="list-style-type: none"> <li>Evidence is limited, as studies were of very low to moderate-quality.</li> <li>There was high heterogeneity due to differences in the type of manual therapy, frequency of treatment, duration of treatment, patient populations, and length of follow-up.</li> <li>Assessed outcomes lacked standardization.</li> <li>Clinical significance was not always clear.</li> <li>No comparison was made with pharmacological interventions.</li> </ul> |
| <p><b>Cognitive behavioural therapy (CBT)</b></p>              | <ul style="list-style-type: none"> <li>Evidence suggests CBT may reduce pain and disability, and improve quality of life for patients with neck pain when compared to no treatment at short-term follow-up. It did not significantly affect psychological indicators, such as kinesiophobia and distress.</li> </ul>  | <ul style="list-style-type: none"> <li>Primary studies did not focus solely on CBT.</li> <li>There was variability among included studies (e.g., types of cognitive and behavioural interventions).</li> <li>Chronic pain duration was not always defined.</li> </ul>  |
| <p><b>Physiotherapy</b></p>                                   | <ul style="list-style-type: none"> <li>Physiotherapy for neck pain appears to be effective or, at the very least, neutral.</li> </ul>   | <ul style="list-style-type: none"> <li>The evidence was limited and largely low to moderate in quality. No adverse effects were reported.</li> <li>No studies were identified that compared the clinical effectiveness of physiotherapy with opioids.</li> </ul>   |


## Chronic Back Pain



| Intervention   | Research Findings  | Limitations  |
|--|--|--|
| <p><b>Customized or prefabricated shoe inserts</b></p>  | <ul style="list-style-type: none"> <li>Evidence from one study suggests orthotics may reduce pain and disability for patients with chronic low back pain when compared to a wait list control.</li> </ul>                          | <ul style="list-style-type: none"> <li>Evidence was of limited quantity and quality.</li> <li>No studies were identified that compared the clinical effectiveness of foot orthotics with pharmacotherapy.</li> </ul> |
| <p><b>Body weight modifications</b></p>                 | <ul style="list-style-type: none"> <li>Evidence from one non-randomized study suggests losing weight through a multidisciplinary weight management program may reduce low back pain prevalence for overweight patients.</li> </ul> | <ul style="list-style-type: none"> <li>Non-randomized single-arm study was considered.</li> <li>No studies were identified for the underweight patient population.</li> </ul>  |

| Intervention  | Research Findings   | Limitations   |
|---|---|---|
| <p><b>Manual therapy</b><br/>(manipulation, mobilization)</p>  | <ul style="list-style-type: none"> <li>• Overall, the evidence for manual therapy for chronic non-cancer back pain was mixed, with some studies reporting improved pain, functional status, and health-related quality of life, and other studies reporting no statistically significant differences when compared to sham therapy or no treatment.</li> <li>• Manual therapies were reported as well-tolerated, with some participants experiencing mild transient adverse events such as discomfort and tiredness.</li> </ul> | <ul style="list-style-type: none"> <li>• Evidence is limited and studies were of very low to moderate-quality.</li> <li>• There was high heterogeneity due to differences in the type of manual therapy used, the frequency of treatment, duration of treatment, patient populations, and length of follow-up.</li> <li>• Assessed outcomes lacked standardization.</li> <li>• Clinical significance was not always clear.</li> <li>• No comparison with pharmacological interventions was made.</li> </ul> |
| <p><b>Exercise</b></p>   | <ul style="list-style-type: none"> <li>• Two evidence-based guidelines provide strong recommendations for using professionally supervised exercise therapy as the primary treatment for chronic, non-specific back pain.</li> <li>• One evidence-based guideline strongly recommends combining exercise with educative measures.</li> </ul>   | <ul style="list-style-type: none"> <li>• No evidence on cost-effectiveness was identified.</li> <li>• Adequate information was not provided on the applicability and implementation of the recommendations from the evidence-based guidelines.</li> <li>• No information was provided on what specific exercise regimens are recommended, their duration, and their frequencies.</li> </ul>   |
| <p><b>Yoga</b></p>    | <ul style="list-style-type: none"> <li>• Evidence suggests yoga may reduce pain intensity and improve back flexibility and physiologic domains (e.g., serum serotonin) for patients with low back pain when compared to controls.</li> </ul>  | <ul style="list-style-type: none"> <li>• Evidence was of low quality.</li> <li>• Generalizability could be a limitation, as the evidence reviewed included only patients who were not receiving any other treatment for pain.</li> <li>• Limited data on harms was available.</li> <li>• No evidence on cost-effectiveness was identified.</li> </ul>   |
| <p><b>Cognitive behavioural therapy (CBT)</b></p>            | <ul style="list-style-type: none"> <li>• Evidence suggests CBT may reduce pain and improve functioning for patients with low back pain when compared to wait list controls.</li> </ul>  | <ul style="list-style-type: none"> <li>• Primary studies did not focus solely on cognitive behavioural therapy.</li> <li>• There was variability among included studies (e.g., types of cognitive and behavioural interventions).</li> </ul>  |
| <p><b>Physiotherapy</b></p>                                  | <ul style="list-style-type: none"> <li>• Physiotherapy for back pain appears to be effective or, at the very least, has neutral results.</li> </ul>   | <ul style="list-style-type: none"> <li>• The evidence was limited and largely low to moderate in quality, and no adverse effects were reported.</li> <li>• No studies were identified that compared the clinical effectiveness of physiotherapy with opioids.</li> </ul>  |


| Intervention   | Research Findings  | Limitations  |
|--|--|--|
| <p><b><u>Occupational therapy using a biopsychosocial approach</u></b></p>      | <ul style="list-style-type: none"> <li>• Multidisciplinary biopsychosocial rehabilitation interventions seem to be more effective than usual care (i.e., pain medication and physical treatment) or physical treatments in decreasing pain and disability.</li> <li>• Multidisciplinary rehabilitation seems to be more effective than physical treatment in work absenteeism but not more effective than usual care.</li> </ul> | <ul style="list-style-type: none"> <li>• There was considerable heterogeneity across studies.</li> <li>• Blinding was not possible so ascertainment bias is possible.</li> </ul> |
| <p><b><u>Magnesium</u></b><br/>(oral or IV via a health care professional)</p>  | <ul style="list-style-type: none"> <li>• Intravenous magnesium followed by oral magnesium may be beneficial for refractory chronic low back pain compared with placebo.</li> </ul>   | <ul style="list-style-type: none"> <li>• Demonstrated in only one randomized controlled trial; more evidence is needed.</li> </ul>   |

## Chronic Knee Pain (Osteoarthritis)


| Intervention   | Research Findings   | Limitations  |
|--|---|--|
| <p><b><u>Body weight modifications</u></b></p>  | <ul style="list-style-type: none"> <li>• Evidence suggests that losing weight through diet and exercise for overweight patients who have knee osteoarthritis may reduce pain and improve physical function when compared to controls.</li> <li>• Evidence suggests diet alone and exercise alone as weight-loss interventions for overweight patients with knee osteoarthritis had mixed results for pain reduction and improvements in physical function – either favourable or not significantly different compared to control.</li> <li>• No serious adverse events were reported with diet and exercise. There were numerically more non-serious gastrointestinal issues associated with diet interventions compared to non-diet groups.</li> </ul> | <ul style="list-style-type: none"> <li>• There was low- to moderate-quality evidence.</li> <li>• Variability was noted among included studies (e.g., differences in patient population, types of diets and exercises, duration of treatment, follow-up).</li> <li>• Assessed outcomes lacked standardization.</li> <li>• The clinical significance was not always clear.</li> <li>• There was a higher representation of the female population in most studies.</li> <li>• No studies were identified for the underweight patient population.</li> </ul> |

| Intervention   | Research Findings   | Limitations  |
|--|---|--|
| <p><b>Exercise</b></p>    | <ul style="list-style-type: none"> <li>Evidence suggests that exercise may reduce pain and improve function, performance, and health-related quality of life in patients with knee osteoarthritis when compared with usual care, no treatment, or sham interventions.</li> <li>A temporary increase in minor pain was reported with exercise in knee osteoarthritis patients compared to sham therapy, but no difference was reported in worsening pain, falls, or death.</li> <li>Low-impact exercise that combines muscle strengthening, stretching, and aerobic activity did not cause serious adverse events in older adults with knee osteoarthritis. In addition, it did not affect the frequency of knee replacement surgeries between exercise and control groups.</li> </ul> | <ul style="list-style-type: none"> <li>There was low- to moderate-quality evidence.</li> <li>Variability was noted among included studies (e.g., type and duration of exercise, duration of follow-up).</li> <li>There was limited information about patients' adherence to exercise programs and adverse events.</li> <li>No comparison with opioids was made.</li> </ul> |
| <p><b>Viscosupplementation</b><br/>(a procedure to inject lubricating fluid into a joint)</p>  | <ul style="list-style-type: none"> <li>Viscosupplementation with hyaluronic acid may be superior to intra-articular placebo, corticosteroids, and nonsteroidal anti-inflammatory drugs for improving knee pain and function without increasing adverse events.</li> <li>The majority of guidelines did not find sufficient evidence to make a recommendation for or against the use of viscosupplementation for knee osteoarthritis.</li> <li>Two guidelines recommend against its use, while other guidelines recommend viscosupplementation after the failure of other treatments, or in older adults with a particular osteoarthritis grade.</li> </ul>  | <ul style="list-style-type: none"> <li>Results are inconsistent, studies had significant limitations, and clinical significance was uncertain.</li> </ul>  |


## Chronic Musculoskeletal Pain

| Intervention  | Research Findings   | Limitations  |
|---|---|--|
| <p><b>Occupational therapy using a biopsychosocial approach</b></p>  | <ul style="list-style-type: none"> <li>A multimodal approach may have a better effect on pain, disability, depression, and life satisfaction compared with usual care or no treatment.</li> </ul> | <ul style="list-style-type: none"> <li>There was considerable heterogeneity across studies.</li> <li>There was no blinding so ascertainment bias is possible.</li> </ul> |


## Other Upper Extremity Chronic Pain Conditions

| Intervention   | Research Findings   | Limitations   |
|--|---|---|
| <p><b>Orthotic bracing and splinting</b></p>  | <ul style="list-style-type: none"> <li>• Splint use may reduce pain and improve functional performance in patients with osteoarthritis involving the thumb base, wrist, or fingers in the long term (13 to 52 weeks).</li> <li>• Splint use for 4 to 6 weeks may reduce pain and improve functional performance, range of motion, pinch strength, and hand strength in patients with osteoarthritis involving the fingers and thumb base, or those diagnosed with tennis elbow or carpal tunnel syndrome.</li> <li>• A single injection of methylprednisolone acetate may be more effective than night splinting for reducing pain and improving finger dexterity in patients with carpal tunnel after 4 to 6 weeks.</li> <li>• There is limited reporting on potential adverse events; however, no serious harms were reported.</li> </ul> | <ul style="list-style-type: none"> <li>• Evidence is of limited quality.</li> <li>• There is a high risk of biases among the primary studies.</li> <li>• The variety of splints and length of follow-up make it difficult to draw conclusions regarding the optimal approach to splinting.</li> <li>• There is limited data on harms.</li> <li>• No evidence was presented comparing splints to pharmacotherapy meant to relieve pain.</li> </ul> |

## Migraine Prophylaxis


| Intervention   | Research Findings   | Limitations   |
|--|---|---|
| <p><b>Magnesium</b><br/>(oral)</p>  | <ul style="list-style-type: none"> <li>• There is a possible benefit of oral magnesium for migraine prophylaxis compared with placebo.</li> <li>• In two guidelines, magnesium was recommended for migraine prophylaxis.</li> </ul> | <ul style="list-style-type: none"> <li>• Limited evidence was available.</li> <li>• Various dosing was used.</li> </ul> |

## Myofascial Pain Syndrome



| Intervention  | Research Findings   | Limitations  |
|---|---|--|
| <p><b>Hyperbaric oxygen</b></p>  | <ul style="list-style-type: none"> <li>• Limited evidence suggests that hyperbaric oxygen for two weeks may increase pain thresholds and health-related quality of life, and decrease disability in patients with myofascial pain syndrome at 3 months post-treatment.</li> </ul> | <ul style="list-style-type: none"> <li>• Evidence was of limited quality (preliminary study).</li> <li>• The limited studies were potentially due to the availability of hyperbaric oxygen therapy.</li> <li>• Patients were aware of what treatment they received.</li> <li>• It was a small sample size.</li> <li>• There was a lack of Canadian studies.</li> <li>• There was the lack of a reliable control or sham procedure.</li> <li>• There was a short duration of follow-up.</li> <li>• The clinical significance was not clear.</li> <li>• No evidence on cost-effectiveness was identified.</li> </ul> |




## Primary Dysmenorrhea

| Intervention   | Research Findings   | Limitations  |
|--|---|--|
| <p><b>Yoga</b></p>  | <ul style="list-style-type: none"> <li>Evidence suggests yoga may reduce pain intensity and psychological distress (i.e., feelings of stress, anger, tension, anxiety, depression, mood swings), and improve well-being and general activity (i.e., participation in daily activities, socialization, absenteeism) for patients with primary dysmenorrhea when compared to no treatment.</li> <li>No adverse events were reported as a result of yoga.</li> </ul> | <ul style="list-style-type: none"> <li>Evidence ranged from low to high quality.</li> <li>Generalizability could be a limitation, as the evidence reviewed included only patients who were not receiving any other treatment for pain.</li> <li>No evidence on cost-effectiveness was reviewed.</li> </ul> |


## Chronic Pelvic Pain

| Intervention  | Research Findings   | Limitations  |
|---|---|--|
| <p><b><u>Injectable botulinum toxin</u></b></p>  | <ul style="list-style-type: none"> <li>Botulinum toxin type A injections had no effect on pain, sexual functioning, or quality of life in female patients with female sexual dysfunction when compared to placebo.</li> <li>Botulinum toxin type A injections did not significantly reduce pain in patients with myofascial pelvic pain or provoked vestibulodynia when compared to placebo.</li> <li>Botulinum toxin type A injections combined with physiotherapy did not significantly reduce pain compared to placebo and physiotherapy for patients with myofascial pelvic pain.</li> <li>Physiotherapy was more effective than botulinum toxin type A injection in reducing pain and improving sexual functioning in patients with vaginismus.</li> </ul> | <ul style="list-style-type: none"> <li>There was a lack of Canadian studies.</li> <li>Limited patient populations were identified in the literature.</li> <li>Not all studies had appropriate comparator groups.</li> <li>Outcomes assessed may not have considered patients' personal satisfaction with the treatment.</li> <li>No evidence on cost-effectiveness was identified.</li> <li>No recommendations from guidelines were identified.</li> </ul> |
| <p><b>Yoga</b></p>                             | <ul style="list-style-type: none"> <li>Evidence suggests that yoga plus conventional treatment with analgesics may be effective for reducing chronic pelvic pain, while conventional treatment with analgesics alone was not.</li> </ul>  | <ul style="list-style-type: none"> <li>There was a limited quality evidence.</li> <li>No evidence was identified comparing yoga alone to pharmacotherapy.</li> <li>No evidence on cost-effectiveness was identified.</li> </ul>  |


## Fibromyalgia

| Intervention   | Research Findings  | Limitations   |
|--|--|---|
| <p><b><u>Hyperbaric oxygen</u></b></p>  | <ul style="list-style-type: none"> <li>• After 2 months, hyperbaric oxygen may increase pain thresholds, physical functionality, and health-related quality of life, while decreasing tender points and psychological distress in female patients with fibromyalgia syndrome.</li> <li>• Few and mild adverse events were associated with hyperbaric oxygen. Mild barotrauma was experienced by some patients and resolved spontaneously.</li> </ul> | <ul style="list-style-type: none"> <li>• Evidence was of limited quality.</li> <li>• There were limited studies potentially due to the availability of hyperbaric oxygen therapy.</li> <li>• Patients were aware of what treatment they received.</li> <li>• Sample sizes were small.</li> <li>• Generalizability was limited, as only the female population was studied.</li> <li>• There was a lack of Canadian studies.</li> <li>• There was a lack of a reliable control or sham procedure.</li> <li>• There were short durations of follow-up.</li> <li>• The clinical significance was not clear.</li> <li>• No evidence on cost-effectiveness was identified.</li> </ul> |



## Chronic Pain and Spinal Cord Injury



| Intervention   | Research Findings  | Limitations  |
|--|--|--|
| <p><b><u>Cognitive behavioural therapy (CBT)</u></b></p>  | <ul style="list-style-type: none"> <li>• Evidence suggests that CBT did not significantly reduce pain in patients with chronic pain and spinal cord injury when compared to wait list controls.</li> </ul> | <ul style="list-style-type: none"> <li>• Primary studies did not focus solely on CBT.</li> <li>• The chronic pain source was not defined.</li> </ul> |




## Foot Pain


| Intervention  | Research Findings  | Limitations   |
|---|--|---|
| <p><b><u>Customized or prefabricated shoe inserts</u></b></p>  | <ul style="list-style-type: none"> <li>• The evidence was mixed for orthotics use in patients with rheumatoid arthritis foot pain when compared to controls. Some studies reported statistically significant reductions in pain, while others reported no difference.</li> <li>• Evidence from a single study suggests orthotics may reduce pain for painful flexible flatfoot when compared to sham insoles.</li> </ul> | <ul style="list-style-type: none"> <li>• Evidence was limited and of variable or unclear quality.</li> <li>• There was limited data on harms.</li> <li>• The clinical significance was not always reported.</li> <li>• Sample sizes were small.</li> <li>• There was a heterogeneity across studies (e.g., differences in orthotic materials, length of follow-up).</li> <li>• No studies were identified that compared the clinical effectiveness of foot orthotics with pharmacotherapy.</li> </ul> |

## Chronic Pain

| Intervention   | Research Findings   | Limitations   |
|--|---|---|
| <p><b>Acupuncture</b></p>                                   | <ul style="list-style-type: none"> <li>• Overall, the evidence suggests that acupuncture may be an effective intervention for decreasing pain for adults living with some types of chronic non-cancer pain, but there were some inconsistent results depending on the patient population and type of acupuncture.</li> <li>• A limited number of studies specific to chronic prostatitis and pelvic pain found no difference in adverse events between acupuncture groups and comparator groups.</li> <li>• No firm cost-effectiveness conclusions can be drawn based on limited evidence from one economic evaluation comparing electroacupuncture to nonsteroidal anti-inflammatory drugs.</li> <li>• Six evidence-based guidelines provided recommendations of varying strengths for the use of acupuncture in several chronic pain conditions (including chronic low back pain, different types of arthritis, and other pain disorders).</li> <li>• Two guidelines did not provide recommendations for acupuncture in patients with chronic low back pain and spinal cord-related neuropathic injuries due to insufficient evidence.</li> <li>• One guideline recommended against electroacupuncture (over simulated acupuncture) for chronic neck pain due to the evidence of no effectiveness.</li> </ul> | <ul style="list-style-type: none"> <li>• Evidence was of low quality and primary studies were at high risk of bias.</li> <li>• The clinical significance was not always clear.</li> <li>• There was a lack of long-term follow-up.</li> <li>• There was variability among included studies (e.g., differences in the interventions and comparators).</li> <li>• Outcomes lacked standardization.</li> <li>• There was limited data on harms.</li> </ul> |
| <p><b>Mindfulness</b><br/>(compared to no treatment)</p>  | <ul style="list-style-type: none"> <li>• Evidence suggests mindfulness training versus wait list control may improve pain acceptance and depression scores for patients with chronic pain; however, no statistically significant improvements in pain intensity, anxiety, and quality of life outcomes were found when compared to no treatment.</li> </ul>   | <ul style="list-style-type: none"> <li>• Evidence is of unclear quality.</li> <li>• Generalizability could be limited, as the evidence reviewed included only patients who were not receiving any other treatment for pain.</li> <li>• No data on harms was identified.</li> <li>• No evidence on cost-effectiveness was identified.</li> </ul>   |

| Intervention  | Research Findings  | Limitations   |
|---|--|---|
| <p><b>Mindfulness</b><br/>(compared to pharmacotherapy)</p>  | <ul style="list-style-type: none"> <li>• Overall, the evidence was mixed for mindfulness training (with or without pharmacotherapy) compared with pharmacotherapy alone for chronic non-malignant pain management. Mindfulness training (with or without pharmacotherapy) either improved or did not significantly change outcomes for patients with chronic pain compared with pharmacotherapy alone. Mindfulness training does not appear to significantly worsen pain outcomes.</li> <li>• Three evidence-based guidelines provide recommendations supporting the use of mindfulness training for chronic non-malignant pain in adults. These recommendations are based on a varying quality of evidence.</li> </ul>  | <ul style="list-style-type: none"> <li>• No evidence on cost-effectiveness was identified.</li> <li>• More research is needed on the comparative clinical effectiveness of mindfulness training to pharmacologic interventions.</li> <li>• Details on the specific type, duration, dose, and frequency of pharmacotherapy was not provided.</li> <li>• Most of the clinical evidence identified was for patients with chronic headache pain.</li> </ul> |
| <p><b>Medical cannabis</b></p>                               | <ul style="list-style-type: none"> <li>• Evidence suggests there may be some benefit with cannabis-based medicines for neuropathic pain compared to placebo; however, the benefits need to be weighed against harms.</li> <li>• Findings are inconsistent for the effect of cannabis-based medicines in patients with fibromyalgia, musculoskeletal pain, Crohn disease, and multiple sclerosis compared to placebo.</li> <li>• Four guidelines recommended that cannabis-based medicines may be considered as a treatment option for patients with neuropathic pain, but with some caveats.</li> <li>• One guideline recommended that cannabis-based medicines may be a treatment option for patients with chronic non-cancer pain, but with some caveats.</li> <li>• One guideline recommended that cannabis-based medicines may be a treatment option for patients with chronic non-cancer, non-neuropathic pain, but with some caveats.</li> <li>• Two guidelines recommended against the use of cannabis-based medicines for pain associated with fibromyalgia and back pain.</li> <li>• One guideline recommended against the use of cannabis-based medicines for pain associated with headache, rheumatoid arthritis, and osteoarthritis.</li> <li>• One guideline for pain management in patients with multiple sclerosis mentions that cannabis-based medicines may or may not be offered, depending on the type of cannabis-based medicine and patient condition.</li> </ul> | <ul style="list-style-type: none"> <li>• Evidence was of low to moderate quality.</li> <li>• Long-term studies are needed.</li> <li>• No comparison with other active interventions (e.g., pharmacologic treatments) were identified.</li> </ul>  |

| Intervention  | Research Findings  | Limitations  |
|---|--|--|
| <p><b><u>Yoga</u></b></p>                                  | <ul style="list-style-type: none"> <li>• Seven guidelines provided recommendations for yoga as a treatment for chronic pain (e.g., low back pain, neck pain, knee osteoarthritis). The recommendations were based on low- to high-quality evidence and ranged from weak to strong recommendations.</li> </ul>  | <ul style="list-style-type: none"> <li>• Recommendations were vague regarding the recommended duration, frequency, and type of yoga applied.</li> </ul>  |
| <p><b><u>Multidisciplinary treatment programs</u></b></p>  | <ul style="list-style-type: none"> <li>• Multidisciplinary treatment programs have demonstrated improvements in pain intensity and may improve quality of life and function.</li> <li>• Various types of multidisciplinary programs are used in chronic pain studies. This suggests that different combinations of the individual components used may be effective in managing pain.</li> <li>• The cost-effectiveness of multidisciplinary programs remains uncertain. One American study concluded that multidisciplinary programs were not cost-effective in patients with low back pain.</li> </ul>  | <ul style="list-style-type: none"> <li>• More research is needed to identify which individual components and combinations are likely to provide optimal benefits.</li> <li>• There was limited information for various outcomes including adverse events.</li> <li>• There was a lack of Canadian studies.</li> <li>• No recommendations from guidelines were identified.</li> </ul>   |
| <p><b><u>Tiered care</u></b></p>                         | <ul style="list-style-type: none"> <li>• Evidence suggests that tiered or stepped care may reduce pain and health care or prescription drug utilization, and may improve mental health parameters and return-to-work time for patients with chronic non-malignant pain when compared to usual care. However, there were inconsistent results, which creates uncertainty in the findings.</li> <li>• A UK incremental cost-effectiveness analysis of care for sciatica found that a stepped approach was most cost-effective relative to direct surgical referral over the course of 12 months, with positive net benefits if certain ceiling limits were applied.</li> <li>• One evidence-based guideline was identified (relevant to this table) that describes a treatment algorithm for lower back pain and sciatica. The same guideline also had recommendations pertaining to risk assessment and risk stratification, which were considered weak.</li> </ul> | <ul style="list-style-type: none"> <li>• Clinical evidence was of low quality.</li> <li>• The economic evaluation was of moderate quality.</li> <li>• Descriptions were not always clear for the intervention and comparators.</li> <li>• There was limited evidence on compliance, quality of life, adverse events, and unintended consequences of the intervention.</li> <li>• The majority of the evidence reviewed pertained to low back pain, sciatica, or other musculoskeletal pain conditions.</li> <li>• There was a lack of Canadian studies.</li> <li>• The guideline pertaining to adult patients with low back pain and sciatica did not provide recommendations on using a tiered or stepped process.</li> </ul> |

| Intervention  | Research Findings   | Limitations  |
|---|---|--|
| <p><b><u>Nabilone</u></b></p>  | <ul style="list-style-type: none"> <li>• Nabilone’s role in relieving chronic pain for patients with multiple sclerosis, fibromyalgia, or musculoskeletal pain remains unclear.</li> <li>• Limited evidence suggests that cannabinoids may be associated with more adverse events than placebo, although the majority of reported adverse events were non-serious.</li> <li>• The identified evidence-based guidelines in general did not support the use of cannabinoids, including nabilone, for the treatment of chronic pain due to a lack of sufficient evidence. One guideline provides a weak recommendation that clinicians can consider cannabinoids as a third-line add-on drug for neuropathic pain or palliative cancer pain when current therapies remain persistently problematic.</li> </ul> | <ul style="list-style-type: none"> <li>• Higher-quality and longer-term studies are needed.</li> <li>• Significant heterogeneity was noted across included studies.</li> <li>• Adequately powered studies covering more clinical conditions are needed.</li> <li>• Studies did not always control for concomitant treatments.</li> </ul> |

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