



RESEARCH ARTICLE

Holistic Management of Back Pain

Prakash D. Sigedar¹, Nikhil V. Bothara^{2*}, Digambar Maraskolhe³

ABSTRACT

Back pain is a prevalent health issue influenced by modern lifestyles, including sedentary behavior, poor posture, and stress. This review synthesizes current evidence on its definitions, major causes, preventive strategies, and particularly holistic management approaches, along with indications for medical consultation. Drawing from epidemiological data and clinical guidelines, it emphasizes the role of muscle weakness, improper ergonomics, and psychological factors in etiology. Prevention focuses on core strengthening, posture correction, and lifestyle modifications, while management includes activity maintenance, therapies, and comprehensive interventions integrating physical, mental, and nutritional aspects. Early recognition of red flags is crucial to prevent complications. The review underscores that with disciplined habits and holistic strategies, back pain can be mitigated, fostering improved physical and mental well-being.

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INTRODUCTION

“It is not only ego, but back pain too that prevents a person from bending forward.” This adage highlights the pervasive impact of back pain in contemporary society. Fast-paced lifestyles, prolonged sitting, excessive use of digital devices, physical inactivity, and mental stress have elevated back pain to a common yet debilitating condition. Globally, it ranks among the leading causes of disability, affecting individuals across age groups and contributing significantly to healthcare burdens. This review examines the pathophysiology, causes, prevention, and holistic management of back pain, advocating for a biopsychosocial approach to address its multifaceted nature.^[1-3]

What Is Back Pain?

Back pain refers to discomfort originating from issues involving muscles, ligaments, intervertebral discs, or nerves associated with the spinal column. It can manifest in the cervical (neck), thoracic (upper back), lumbar (lower back), or the entire spine. Acute episodes typically last less than 6-12 weeks and are often nonspecific, while chronic pain persists beyond three months, potentially involving degenerative changes or psychosocial factors.^[4-6]

Major Causes of Back Pain

Back pain arises from a spectrum of mechanical, degenerative, and systemic factors.^[7]

¹Orthopedic Surgeon, Jalna, Maharashtra, India

²Associate Professor, Department of Orthopaedics, Government Medical College, Buldhana, Maharashtra, India

³Associate Professor, Department of Orthopaedics, Government Medical College, Gondia, Maharashtra, India

Corresponding Author: Nikhil V. Bothara, Department of Orthopaedics, Government Medical College, Buldhana, Maharashtra – 443001, E-mail: nikhilbothara@gmail.com

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Weak muscles (Core weakness)

Insufficient strength in abdominal and back muscles fails to support the spine adequately, leading to strain.

Poor posture

Slouched sitting, forward neck bending during device use, or inadequate workstation ergonomics contribute to misalignment and pain.

Incorrect lifting techniques

Bending at the waist rather than knees or twisting during lifts can cause acute injuries.

Sedentary lifestyle

Extended periods of sitting or standing without breaks promote muscle deconditioning and disc pressure.

Obesity

Excess weight increases lumbar spine stress, accelerating degeneration.

Smoking

Reduces blood flow to spinal discs, hastening degeneration and impairing healing.

Improper sleep arrangements

Soft or hard mattresses and poor sleeping positions exacerbate spinal misalignment.

Mental stress

Chronic stress induces muscle tension, amplifying pain through psychosocial mechanisms.

Other etiologies include disc herniation, arthritis, infections, or referred pain from visceral sources.

Preventive Measures for Back Pain

Evidence supports targeted strategies to mitigate risk factors and prevent episodes.^[8]

Strengthen core muscles

Exercises like planks, bridges, and bird-dog poses bolster spinal support.

Maintain proper posture

Keep the back straight, shoulders relaxed, feet flat, and screens at eye level during sitting.

Correct lifting technique

Bend knees, hold loads close, and avoid twisting.

Move every 30–60 minutes

Incorporate short walks and stretches to counteract sedentary effects.

Maintain a healthy weight

Through balanced diet and exercise to reduce spinal load.

Quit smoking

Enhances disc health and healing.

Proper sleeping habits

Use medium-firm mattresses; side sleepers place pillows between knees, back sleepers under knees.

Wear proper footwear

Opt for low-heeled, supportive shoes to maintain alignment.

Combining exercise with education yields the strongest preventive effects.

Back Pain Management & Self-Care

Management prioritizes conservative, evidence-based interventions.^[9-12]

Stay active

Avoid bed rest; light activities and walking alleviate pain.

Hot and cold therapy

Cold for inflammation post-injury; heat for stiffness.

Gentle exercises & stretching

Yoga, pranayama, knee-to-chest stretches, bhujangasana, and makarasana improve flexibility.

Ergonomic improvements

Use lumbar-support chairs or rolled towels for lower back support.

Pharmacological options include NSAIDs or muscle relaxants for short-term relief.

Holistic (Comprehensive) Treatment Approach are as follows:^[13-15]

A biopsychosocial model integrates multiple facets for effective management.

Physical care

Exercise and physiotherapy.

Mental well-being

Meditation, breathing exercises, stress reduction, and mindful breathing techniques.

Nutrition

Calcium, vitamin D, protein-rich diets, and plant-based approaches.^[14-17]

Yoga & pranayama

Promote body-mind balance.

Lifestyle modification

Regular sleep, movement, discipline, and integrated behavioral health interventions.

Cognitive-behavioral therapy addresses psychological contributors. Holistic programs like Move to Health and lifestyle medicine strategies have shown promise in reducing pain and improving quality of life.^[16]

When to Consult a Doctor: Immediately

- Seek urgent care for:^[16]
- Pain following accidents, falls, or injuries.
- Numbness, tingling, or leg weakness.
- Unexplained weight loss or fever with pain.
- Loss of bowel or bladder control.
- These red flags may indicate serious conditions like cauda equina syndrome or infection.^[18]

CONCLUSION

Back pain transcends physical discomfort, reflecting lifestyle, mental health, and habits. Through exercise, proper posture, nutrition, stress management, and holistic interventions, individuals can prevent and manage it effectively, leading to enhanced resilience and quality of life.

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