



# Red Flags for Treating Back Pain and Injuries in a Manual Therapy Setting

## Introduction

Back pain is one of the most common complaints seen by manual therapists and personal trainers. While the majority of back pain cases are due to musculoskeletal issues such as muscle strains, ligament sprains, or poor posture, certain red flags can signal more serious underlying conditions that require referral to a specialist. Understanding these red flags, common pathologies, and the difference between treatment contraindications and considerations is essential for both safety and effective patient care.

## Red Flags in Manual Therapy Setting

In a manual therapy context, recognising red flags for serious underlying conditions is crucial. These red flags warrant further investigation or referral to a physician. Ignoring them could delay proper diagnosis or treatment, potentially leading to worsening of the condition.

### 1. Unexplained Weight Loss

- Significant and unexplained weight loss can be indicative of serious conditions such as cancer, infections, or systemic diseases like tuberculosis or HIV.
- **Action:** Immediate referral to a healthcare provider for further evaluation.

### 2. Night Pain or Pain at Rest

- Pain that persists through the night, interrupts sleep or is present even at rest can indicate serious pathology, such as a spinal tumor or infection.

- **Action:** Refer to a physician for imaging or diagnostic tests.

### 3. History of Cancer

- Patients with a history of cancer are at increased risk of metastasis to the spine, particularly cancers of the breast, prostate, lung, kidney, and thyroid. Any referring neurological pain above the original cancer site, is to be considered in the clinical setting to be cancerous in nature until proven or cleared otherwise by the relevant medical personnel (NOT TO BE STATED TO PATIENT).
- **Action:** Referral for imaging (MRI or CT) to rule out metastatic disease.

### 4. Trauma or Recent Accident

- Recent significant trauma (e.g., a fall from height, motor vehicle accident) increases the risk of fractures or ligament injuries, especially in older adults with osteoporosis.
- **Action:** Referral for X-rays or advanced imaging to rule out fractures or soft tissue damage.

### 5. Neurological Symptoms (e.g., Saddle Anaesthesia, Bowel/Bladder Dysfunction)

- Saddle anaesthesia (numbness in the inner thighs and buttocks), loss of bladder or bowel control, and weakness in the legs are signs of **cauda equina syndrome**, a medical emergency requiring urgent surgical intervention.
- **Action:** Immediate referral to the emergency department.

### 6. Severe, Unrelenting Pain

- Severe, constant pain that doesn't improve with rest or conservative treatment could indicate serious conditions like infection, malignancy, or aortic aneurysm.
- **Action:** Referral for diagnostic tests and possible hospitalization.

### 7. Fever or Chills

- Back pain accompanied by fever or chills could indicate a spinal infection (e.g., discitis, osteomyelitis, or abscess).
- **Action:** Immediate referral for medical evaluation and treatment with antibiotics if an infection is confirmed.

### 8. Osteoporosis and Increased Risk of Fracture

- Elderly patients or those with known osteoporosis are at a higher risk for vertebral compression fractures even from minor trauma.
- **Action:** Refer for imaging if a fracture is suspected.

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## Common Pathologies Related to Back Pain

Manual therapists often encounter various musculoskeletal issues related to back pain. Understanding these pathologies and recognizing when they require specialist intervention is key to successful treatment.

### 1. Lumbar Disc Herniation

- **Presentation:** Radiating pain down one leg, often accompanied by numbness or weakness. The pain is typically worse with sitting or bending forward.
- **When to Refer:** If symptoms of neurological compromise (e.g., motor weakness, severe sensory loss) are present, referral for MRI and possible surgical evaluation is necessary.

### 2. Facet Joint Dysfunction

- **Presentation:** Localized pain in the lower back, often worse with extension or prolonged standing. Pain may radiate but typically does not extend beyond the knee.
- **When to Refer:** If conservative treatment does not improve symptoms within 6 weeks or neurological symptoms develop, consider referral for advanced imaging or specialist evaluation.

### 3. Spinal Stenosis

- **Presentation:** Pain, numbness, or weakness in the legs with walking or prolonged standing, often relieved by sitting or bending forward. Common in older adults.
- **When to Refer:** If progressive neurological deficits are present (e.g., worsening weakness, bladder dysfunction), refer for imaging and specialist consultation.

### 4. Sacroiliac Joint Dysfunction

- **Presentation:** Pain located in the lower back or buttock, often unilateral, worsened by standing on one leg or during transitional movements.
- **When to Refer:** If conservative treatments like manual therapy, exercises, or injections fail to provide relief, referral to a pain management specialist or orthopaedic surgeon may be warranted.

### 5. Spondylolisthesis

- **Presentation:** Lower back pain that may radiate to the legs, often exacerbated by extension. Palpable step deformity in the spine may be noted.
- **When to Refer:** Referral for imaging is necessary if instability is suspected or if symptoms worsen despite conservative care.

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## Differences Between Treatment Contraindications and Treatment Considerations

### Treatment Contraindications

These are conditions or scenarios where manual therapy, or certain treatment techniques are **absolutely not recommended** as they could potentially cause harm or exacerbate the underlying issue. Examples include:

- **Acute fractures:** Manipulation or mobilization should be avoided until the bone has healed.
- **Active infection:** Manual therapy in the presence of an infection could spread the infection.
- **Cauda equina syndrome:** Immediate medical intervention is required, and manual therapy should not be performed.
- **Cancer or metastasis in the spine:** Manipulative techniques are contraindicated to prevent further damage or complications.

## Treatment Considerations

These are conditions where manual therapy may still be appropriate, but the therapist must proceed with **caution**, modify the treatment approach, or monitor closely for adverse effects. Examples include:

- **Osteoporosis:** Mobilizations may be used, but high-velocity manipulations should be avoided due to the risk of fracture.
- **Mild disc herniation:** Treatment should be tailored to avoid aggravating the condition (e.g., avoiding excessive flexion or extension-based techniques).
- **Post-surgical recovery:** Therapists should avoid high-force techniques and focus on soft tissue work or mobilization as the patient heals.

## Red Flags for Back Pain in a Gym/Personal Training Setting

In a gym or personal training setting, trainers should be able to recognize red flags that require referral to a healthcare professional. Although personal trainers are not expected to diagnose conditions, they must be vigilant when working with clients who report back pain.

### 1. Sudden Onset of Severe Pain

- If a client experiences sudden, sharp, or severe back pain during exercise, it may indicate a serious injury such as a disc herniation or muscle tear.
- **Action:** Cease all activity immediately and refer the client to a healthcare provider for evaluation.

### 2. Pain Radiating Down the Leg

- Sciatic-type pain (radiating from the lower back down one or both legs) can indicate nerve involvement due to a herniated disc or other spinal issues.
- **Action:** Stop all lower back exercises and recommend the client seek medical advice.

### 3. Numbness or Weakness

- If a client reports or demonstrates numbness, tingling, or weakness in the legs or feet, it could indicate nerve compression or damage.
- **Action:** Discontinue exercises and refer them for medical assessment immediately.

### 4. Pain Not Relieved by Rest or Worsened by Lying Down

- Pain that persists even at rest or worsens at night may signal a more serious underlying condition like a tumor or infection.
- **Action:** Urge the client to see a doctor as soon as possible for evaluation.

## 5. Visible Structural Changes

- If the client shows visible structural changes such as scoliosis, a shifted posture, or a noticeable deformity, it could indicate severe muscle imbalance, a herniated disc, or spinal instability.
- **Action:** Recommend the client seek medical consultation before continuing exercise.

## 6. Previous History of Injury or Surgery

- Clients with a history of spinal surgery or previous significant back injuries should be monitored closely. Any recurrence of symptoms during exercise should be treated cautiously.
- **Action:** Modify exercises as necessary and advise a medical check-up if symptoms worsen.

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## Conclusion

Recognizing red flags in back pain management is essential to ensuring patient safety and effective treatment. Understanding common pathologies and when to refer for further investigation, as well as the differences between contraindications and treatment considerations, will allow manual therapists and personal trainers to offer appropriate care and make informed decisions. Red flags in a gym setting, such as neurological symptoms or sudden pain, also require immediate action to prevent further harm. Always prioritize the health and well-being of the patient or client by ensuring timely referrals and safe practice guidelines.

## Disclaimer

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Manual therapists, personal trainers, and other professionals are advised to exercise their own professional judgment and consult relevant healthcare providers when dealing with back pain and injuries. Recognizing red flags and understanding contraindications require proper training, clinical experience, and, in certain cases, referral to a qualified medical practitioner.

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