

# CARE PLAN:

## 1. SIMPLE JOINT AND MUSCLE DYSFUNCTION

**ETIOLOGY:** Joint and muscle dysfunction may arise out of unanticipated or unprepared loading, repetitive postural stresses, reflexively from other involved areas, secondary to congenital biomechanical defects (scoliosis, short leg, etc.) or idiopathically (cause unknown).

The associated joint restrictions and muscle spasms tend to reinforce each other. Simple dysfunction usually resolves quickly, without residuals. It may have a propensity to recur as it is thought to come from activities of daily living, and some individuals may be predisposed to such dysfunction.

**APPROPRIATE CARE:** Spinal adjusting, manipulation, myofascial soft tissue work, simple home mobility and stretching exercise, postural and ergonomic counseling.

**EXPECTED FREQUENCY AND DURATION OF CARE:** 2 to 3 sessions per week, decreasing in frequency over a 2-4 week period. A one-month follow up exam is recommended.

**Total: Under 9 visits in 8 weeks.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1	Pain control (Ice) Gentle myofascial work Gentle adjusting	50% subjective pain reduction 50% increase in ROM	X		X			X
2	Same as above	Same as above		X			X	
3	More aggressive adjusting Home exercise	Near asymptomatic			X			
4	Same as above	Same as above			X			
5-8	One 30 day followup exam	Discharge			X			

**ATTENUATING FACTORS:** Activities of daily living or repetitive postural stresses are likely to cause a flare up requiring 1-3 additional sessions. The likelihood of this diminishes with good compliance in home instructions. Older aged individuals or those with or general health problems may delay recovery or require greater frequency after week 2.

# CARE PLAN:

## **2. ACUTE EXTERNAL TRAUMA WITH SOFT TISSUE TRAUMA- MILD**

**ETIOLOGY:** A slip and fall, strike, or jolt typically creates spinal problems with unique characteristics. Falls to the buttocks cause intra-articular "jamming". Being struck by a moving object can also "jam" joints, as well as producing contusion of surrounding soft tissues.

These painful conditions are associated with varying degrees of soft tissue trauma and may result in formation of adhesions. Early intervention is desirable to prevent chronic scar formation and development of myofascitis. Rapid return to light and modified activities is thought to yield best results.

**APPROPRIATE CARE:** Early passive assisted movements, early use of ancillary procedures to reduce pain and inflammation, spinal adjusting, gentle myofascial soft tissue work, resisted isometric and stretching rehabilitative exercise and home cryotherapy (cold packs).

**EXPECTED FREQUENCY AND DURATION OF CARE:** Based upon degree of trauma 3-5 sessions per week initially, decreasing in frequency thereafter. Long term followup is essential since many symptoms may not begin until 6-8 weeks post trauma. Followup should be expected FOR 2-4 months, but may be longer if treatment is delayed. Modified work restrictions likely for 6-8 weeks.

**TOTAL: 14-18 SESSIONS OVER 2-4 MONTHS.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1-2	Pain control (Ice) Gentle myofascial work Gentle adjusting	50% subjective pain reduction 50% increase in ROM	X		X			X
2-6	Same as above	Same as above		X			X	
8-12	More aggressive adjusting Home exercise	Near asymptomatic			X			

**ATTENUATING FACTORS:** Activities of daily living or repetitive postural stresses are likely to cause a flare up requiring 1-3 additional sessions. The likelihood of this diminishes with good compliance in home instructions. Older aged individuals or those with general health problems may delay recovery or require greater frequency after week 2.

# CARE PLAN:

## 2. ACUTE EXTERNAL TRAUMA WITH SOFT TISSUE TRAUMA- MODERATE

**ETIOLOGY:** A slip and fall, strike, or jolt typically creates spinal problems with unique characteristics. Falls to the buttocks cause intra-articular "jamming". Being struck by a moving object can also "jam" joints, as well as producing contusion of surrounding soft tissues.

These painful conditions are associated with varying degrees of soft tissue trauma and may result in formation of adhesions. Early intervention is desirable to prevent chronic scar formation and development of myofascitis. Rapid return to light and modified activities is thought to yield best results.

**APPROPRIATE CARE:** Early passive assisted movements, early use of ancillary procedures to reduce pain and inflammation, spinal adjusting, gentle myofascial soft tissue work, resisted isometric and stretching rehabilitative exercise and home cryotherapy (cold packs).

**EXPECTED FREQUENCY AND DURATION OF CARE:** Based upon degree of trauma 3-5 sessions per week initially, decreasing in frequency thereafter. Long term followup is essential since many symptoms may not begin until 6-8 weeks post trauma. Followup should be expected FOR 3-5 months, but may be longer if treatment is delayed. Modified work restrictions likely for 6-8 weeks.

**TOTAL: 18-24 SESSIONS OVER 3-5 MONTHS.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1-2	Pain control (Ice) Gentle myofascial work Gentle adjusting	30% subjective pain reduction 30% increase in ROM <b>3-5 /week</b>	X		X			X
2-6	Same as above	30-50% pain reduction Flare up with ADL's 30-50% imp. ROM <b>2-3 week</b>		X			X	
8-12	More aggressive adjusting Home exercise	50-75% pain relief Return to full ADL's <b>1-2/ week</b>			X			
13+	Adjusting PRN Myofascial work Aggressive active exercise	Gradual improvement Discharge Residuals possible <b>2-3/month</b>						

**ATTENUATING FACTORS:** Activities of daily living or repetitive postural stresses are likely to cause a flare up requiring 1-3 additional sessions. The likelihood of this diminishes with good compliance in home instructions. Older aged individuals or those with general health problems may delay recovery or require greater frequency after week 2.

# CARE PLAN:

## **2. ACUTE EXTERNAL TRAUMA WITH SOFT TISSUE TRAUMA- SEVERE**

**ETIOLOGY:** A slip and fall, strike, or jolt typically creates spinal problems with unique characteristics. Falls to the buttocks cause intra-articular "jamming". Being struck by a moving object can also "jam" joints, as well as producing contusion of surrounding soft tissues.

These painful conditions are associated with varying degrees of soft tissue trauma and may result in formation of adhesions. Early intervention is desirable to prevent chronic scar formation and development of myofascitis. Rapid return to light and modified activities is thought to yield best results.

**APPROPRIATE CARE:** Early passive assisted movements, early use of ancillary procedures to reduce pain and inflammation, spinal adjusting, gentle myofascial soft tissue work, resisted isometric and stretching rehabilitative exercise and home cryotherapy (cold packs).

**EXPECTED FREQUENCY AND DURATION OF CARE:** Based upon degree of trauma 3-5 sessions per week initially, decreasing in frequency thereafter. Long term followup is essential since many symptoms may not begin until 6-8 weeks post trauma. Followup should be expected FOR 3-6 months, but may be longer if treatment is delayed. Modified work restrictions likely for 6-8 weeks.  
**TOTAL: 24-30 SESSIONS OVER 3-6 MONTHS.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1	Pain control (Ice) Rest, bracing Passive assisted movements	20% subjective pain reduction Minor improved ROM <b>3-5 /week</b>	X		X			X
2-3	Heat, increased movement Gentle adjusting Light ROM & work	30-50% pain reduction Flare up with ADL's 30-50% imp. ROM <b>2-3 week</b>		X			X	
4-8	Myofascial work Adjusting Aggress. act. exercise	50-75% pain relief Return to full ADL's <b>1-2/ week</b>			X			
9-12	Adjusting PRN Myofascial work Aggress. act. exercise	Gradual improvement Residuals possible <b>2-3/month</b>						
12-24	Myofascial work & adjusting PRN Continue exercise	Gradual improvement Discharge Residuals possible <b>1-2/ month</b>						

**ATTENUATING FACTORS:** Activities of daily living or repetitive postural stresses are likely to cause a flare up requiring 1-3 additional sessions. The likelihood of this diminishes with good compliance in home instructions. Older aged individuals or those with general health problems may delay recovery or require greater frequency after week 2.

# CARE PLAN:

## 3. LUMBAR FACET SYNDROME

**ETIOLOGY:** This condition usually arises from a twisting and compression injury and results from an invagination and pinching of the joint capsule or synovial tissue. Acute pain, capsular swelling, and resultant stress in foraminal contents may mimic the radicular signs of a disc bulge.

**APPROPRIATE CARE:** High velocity facet adjusting is used along with gentle active exercise. This should respond well and heal without residuals.

**EXPECTED FREQUENCY AND DURATION OF CARE:** Three sessions a week for 2 weeks and 1 per week for 2 more weeks. A follow care of 1-2 times over the next 4 weeks. **TOTAL: 8-9 visits over 8 weeks.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1-2	Pain control High velocity SMT	75% subjective pain reduction 75% improved ROM <b>3 /week</b>	X		X		X	
3-4	Adjusting Myofascial work Home exercise	90% subjective pain relief 90% imp. ROM <b>1 /week</b>				X		
5-8	Myofascial work PRN Adjusting PRN Home exercise	Discharge  <b>1-2 / month</b>				X		

**ATTENUATING FACTORS:** The degree of initial injury and the conditioning of the patient prior to injury as well as compliance with home care all contribute to recovery.

**SMT** = spinal manipulative therapy (adjusting)

**PRN** = per required need (patient requests)

# CARE PLAN:

## 4. ACUTE LIFTING INJURY WITH STRAINED CONTRACTILE TISSUE

**ETIOLOGY:** Muscle strain is common from lifting and loading. This is usually painful throughout active ROM. May be associated with joint dysfunction and/or sprained ligamentous structures. This is easily relieved by reducing muscle spasm and freeing the associated joint restrictions.

**APPROPRIATE CARE:** Myofascial work, adjusting and gentle active exercise. Healing should occur quickly, without residuals.

**EXPECTED FREQUENCY AND DURATION OF CARE:** Three sessions per week for 2 weeks, reducing to 2 sessions per week for another 2 weeks. Follow-up over next 4-6 weeks at 1/2 sessions per week.

**TOTAL: 12-14 visits over 8-10 weeks.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1-2	Pain control Gentle SMT Gentle myofascial work	50% subjective pain reduction 25% improved ROM <b>3 /week</b>	X		X		X	
3-4	Adjusting Myofascial work Home exercise	75% subjective pain relief 75% imp. ROM <b>2 /week</b>		X			X	
5-10	Myofascial work PRN Adjusting PRN Home exercise	Discharge  <b>2-4 / month</b>				X		

**ATTENUATING FACTORS:** The degree of initial injury and the conditioning of the patient prior to injury as well as compliance with home care all contribute to recovery.

**SMT** = spinal manipulative therapy (adjusting)

**PRN** = per required need (patient requests)

**ROM** = range of motion

# CARE PLAN:

## 5. ACUTE LIFTING INJURY WITH SPRAINED NONCONTRACTILE TISSUE

**ETIOLOGY:** Ligamentous and tendinous sprain is common from heavy lifting and sudden loading. Resisted movements are quite painful regardless of motion range. Often associated with simple joint and muscle dysfunction and/or muscle strain. It may also be accompanied by bursitis and/or tendinitis as well. Relief comes from reducing muscle spasm and freeing associated joint restrictions. Pain control procedures include ice, heat and rest in the early stages.

**APPROPRIATE CARE:** Cryotherapy (ice), myofascial work, adjusting and gentle active exercise all contribute to healing. Response depends on the extent and location of the noncontractile tissue affected. This takes longer than muscle strain, but may heal without residuals if care is initiated early.

**EXPECTED FREQUENCY AND DURATION OF CARE:** Three sessions per week for 2 weeks, reducing to 2 sessions per week for another 3 weeks. Follow-up over next 5-7 weeks at 1/2 sessions per week.

**TOTAL: 14-16 visits over 10-12 weeks.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1-2	Pain control (cryo, rest) Gentle myofascial work	Significant subjective pain reduction Good improvement in ROM <b>3 /week</b>	X		X		X	
3-5	Adjusting Myofascial work Home exercise	Better subjective pain relief Good improvement in ROM <b>2 /week</b>		X			X	
6-12	Myofascial work PRN Adjusting PRN Home exercise	Discharge <b>2-4 / month</b>				X		

**ATTENUATING FACTORS:** The degree and location of the initial injury and the compliance of the patient with home care will affect healing. Stress to the tissue from ADL's can cause exacerbations and extend care.

**SMT** = spinal manipulative therapy (adjusting)

**PRN** = per required need (patient requests)

**ROM** = range of motion

**ADL** = activities of daily living

# CARE PLAN:

## 6. CHRONIC MYOFIBROSITIS

**ETIOLOGY:** This results from irritation, trauma, or immobilization of interplanar fascia within and surrounding the muscles. It is often painful and prone to flare-up from acute injury. It is a complicating factor to other diagnoses and is a common residual from significant soft tissue injury. It can be minimized with early treatment. It may be associated with sleep disturbance.

**APPROPRIATE CARE:** Once established, myofascitis is hard to treat. It is easily aggravated by overuse, yet passive and active tissue movement provide the best long term outcome. Care includes aggressive deep myofascial work, long term stretching exercise, heating modalities and conditioning if response is poor.

**EXPECTED FREQUENCY AND DURATION OF CARE:** 2 to 3 sessions per week initially, reducing to weekly sessions if beneficial response is seen within the first 2-4 weeks. The patient must be self-dependent. Care beyond 6-8 weeks is appropriate PRN only if the patient complies with active stretching and ROM home exercise.

**TOTAL: 10-14 visits over 8-12 weeks.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1-4	Aggressive myofascial work Heat Stretching	Great subjective pain reduction initially with gradual improvement <b>2-3 /week</b>	X		X		X	
5-8	Deep myofascial work Home stretching Active strengthening exercise	Gradual progress with significant pain reduction post treatment <b>1 /week</b>		X			X	
> 8	As above PRN	Permanent and stationary with flare-up management				X		

**ATTENUATING FACTORS:** The patient's sleep habits, mental stress levels and compliance with home exercise may all contribute to reduced response.

**PRN** = per required need (patient requests)



# CARE PLAN:

## **7. EXPOSURE TO REPETITIVE TRAUMA DURING CARE**

**ETIOLOGY:** This is a complicating factor that warrants special attention due to its prevalence in occupational rehabilitation. Most injuries occur within typical movement ranges required within the course of completing normal job tasks. Early return to the same activities is essential for conditioning and healing, but may contribute to flare-ups. The distinction is made between flare-ups and substantial reinjury, which may require significant modification of the treatment plan.

**APPROPRIATE CARE:** A temporary increase in treatment frequency of 2-5 visits is reasonable and beneficial.

**EXPECTED FREQUENCY AND DURATION OF CARE:** 2 to 3 additional sessions over a 1-2 week period. **TOTAL: 2-6 visits over 1-2 weeks.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
PRN	As indicated for the condition	Should resolve to expected levels quickly						

**ATTENUATING FACTORS:** The degree of involvement of the tissue and the frequency of exacerbation will impact the recovery.

# CARE PLAN:

## 8. POSSIBLE DISCOGENIC INVOLVEMENT WITHOUT NEUROLOGIC SIGNS

**ETIOLOGY:** Disc protrusion may produce pain from inflammatory products at the disc itself. It may also produce reflex spasm and resultant pain. This condition usually arises from lifting and loading while rotating at the waist.

**APPROPRIATE CARE:** Myofascial soft tissue work, flexion distraction and adjusting, along with a home regimen of exercises will reduce spasm and increase ROM.

**EXPECTED FREQUENCY AND DURATION OF CARE:** During the first 2-4 weeks of care the differential diagnosis between disc and non-disc involvement can be made. The initial care plan follows the probable disc protocol, with the remainder of care dependent on the determination of disc involvement. Those that appear to be disc related will continue the probable disc protocol. Non-disc diagnosis will conclude care along the protocol of that non-disc care plan that is appropriate. **TOTAL: Up to 10 sessions during the first month. Then care follows the care plan for the appropriate diagnosis.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1	Pain relief (ice) Myofascial work	Gradual relief of muscle spasm and some pain reduction <b>3 /week</b>	X		X		X	
2-4	Myofascial work Adjusting/ flexion distraction Home exercise	>50% subjective pain relief >50% improved ROM <b>2-3 /week</b>		X		X		
>4	Depends upon final diagnosis	As expected according to the final diagnosis						

**ATTENUATING FACTORS:** The nature of the symptoms, the degree of the initial disc injury, general metabolic health and compliance with home exercise plan all contribute to recovery time.

## **CARE PLAN:**

### **9. PROBABLE DISCOGENIC INVOLVEMENT WITHOUT NEUROLOGIC SIGNS**

**ETIOLOGY:** Disc protrusion may produce pain from inflammatory products at the disc itself. It may also produce reflex spasm and resultant pain. This condition usually arises from lifting and loading while rotating at the waist.

**APPROPRIATE CARE:** Myofascial soft tissue work, flexion distraction and adjusting, along with a home regimen of exercises will reduce spasm and increase ROM.

**EXPECTED FREQUENCY AND DURATION OF CARE:** The degree of annular bulging, healing requires a greater amount of time than non-disc injuries because of the avascular (no blood supply) nature of disc tissue. Care is usually of several months duration with initial frequency at 3 or more sessions per week, gradually reducing to PRN frequencies of 1 per month to discharge. **TOTAL: 24-28 sessions over 5 months.**

<b>WEEK</b>	<b>CARE</b>	<b>PROGRESS</b>	<b>M</b>	<b>T</b>	<b>W</b>	<b>T</b>	<b>F</b>	<b>S</b>
<b>1</b>	Pain relief (ice) Myofascial work	Gradual relief of muscle spasm and some pain reduction <b>3-5 /week</b>	<b>X</b>		<b>X</b>		<b>X</b>	
<b>2-4</b>	Myofascial work Adjusting/ flexion distraction Home exercise	>50% subjective pain relief >50% improved ROM Decrease in pain distribution <b>2-3 /week</b>		<b>X</b>		<b>X</b>		
<b>5-16</b>	Adjusting Myofascial work Home strengthening exercise	Gradual progressive improvement with resolution PRN follow-ups <b>1-2 / week</b>			<b>X</b>			

**ATTENUATING FACTORS:** The nature of the symptoms, the degree of the initial disc injury, general metabolic health and compliance with home exercise plan all contribute to recovery time.

## **CARE PLAN:**

### **10. PROBABLE DISCOGENIC INVOLVEMENT WITH SOFT NEUROLOGIC SIGNS**

**ETIOLOGY:** In addition to pain from inflammatory products and reflex spasm, a bulging disc may insult structures in and around the nerve roots or the root itself. In the presence of soft neurologic signs such as paresthesia (numbness or tingling), hyper- or hypoesthesia (increased/ decreased sense of touch), and pain radiation along a radicular distribution, a variety of chiropractic approaches are appropriate for a clinical trial.

**APPROPRIATE CARE:** Myofascial soft tissue work, flexion distraction and adjusting, along with a home regimen of exercises will reduce spasm and increase ROM.

**EXPECTED FREQUENCY AND DURATION OF CARE:** The degree of annular bulging, healing requires a greater amount of time than non-disc injuries because of the avascular (no blood supply) nature of disc tissue. This condition is treated in similar fashion to disc conditions without radicular findings: however, neurologic involvement may contribute to additional spasm and may slow response to care. Care is usually of several months duration with initial frequency at 3 or more sessions per week, gradually reducing to PRN frequencies of 1 per month to discharge.

**TOTAL: 26-30 sessions over 5-6 months.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1	Pain relief (ice) Myofascial work	Gradual relief of muscle spasm and some pain reduction <b>3-5 /week</b>	X		X		X	
2-4	Myofascial work Adjusting/ flexion distraction Home exercise	>50% subjective pain relief >50% improved ROM Decrease in pain distribution <b>2-3 /week</b>		X		X		
5-16	Adjusting Myofascial work Home strengthening exercise	Gradual progressive improvement with resolution PRN follow-ups <b>1-2 / week</b>			X			

**PRN** = per required need (patient request)

**ATTENUATING FACTORS:** The nature of the symptoms, the degree of the initial disc injury, general metabolic health and compliance with home exercise plan all contribute to recovery time.

# CARE PLAN:

## 11. PROBABLE DISCOGENIC INVOLVEMENT WITH FIRM NEUROLOGIC SIGNS

**ETIOLOGY:** Space occupying disc herniation is likely. Firm neurologic signs have potential for development of permanent residuals, and such cases may be surgical candidates. In the presence of firm neurologic signs such as significant motor weakness, muscle atrophy, severe intractable pain, and documented nerve damage, a conservative regimen is likely to have already failed. Under such circumstances, a short trial of manipulation may be warranted if not previously attempted and pain is manageable. If progressive deterioration occurs, prolonged manipulative management is not considered.

**APPROPRIATE CARE:** Myofascial soft tissue work, flexion distraction or McKenzie therapeutic exercises along with spinal adjusting, with a prescription for a home regimen of exercises, will reduce spasm and increase ROM.

**EXPECTED FREQUENCY AND DURATION OF CARE:** Depending on the degree of annular bulging and the nature of neurologic damage, healing requires a greater amount of time than non-disc and lesser disc injuries. This condition is treated in similar fashion to disc conditions with soft neurologic findings; However, response is typically slowed and team management should be considered. Care is usually of several months duration, with initial frequency at 3 or more sessions per week, gradually reducing to PRN frequencies of 1 per month to discharge. **TOTAL: 26-32 sessions over 6-8 months.**

WEEK	CARE	PROGRESS	M	T	W	T	F	S
1	Palliative measures (Typically medical pharmaceutical management) Myofascial work	Gradual relief of muscle spasm and some pain reduction <b>3-5 /week</b>	X		X		X	
2-4	Myofascial work Adjusting/ flexion distraction McKenzie exercises Home exercise	>50% subjective pain relief >50% improved ROM Decrease in pain distribution <b>2-3 /week</b>		X		X		
5-16	Adjusting (SMT) Myofascial work Home strengthening exercise	Gradual progressive improvement with resolution PRN follow-ups <b>1-2 / week</b>			X			

**PRN** = per required need (patient request)

**SMT** = spinal manipulative therapy (adjusting)

**ATTENUATING FACTORS:** The nature of the symptoms, the degree of the initial disc injury, general metabolic health and compliance with home exercise plan all contribute to recovery time.