



לגעת בכאב Touching the pain

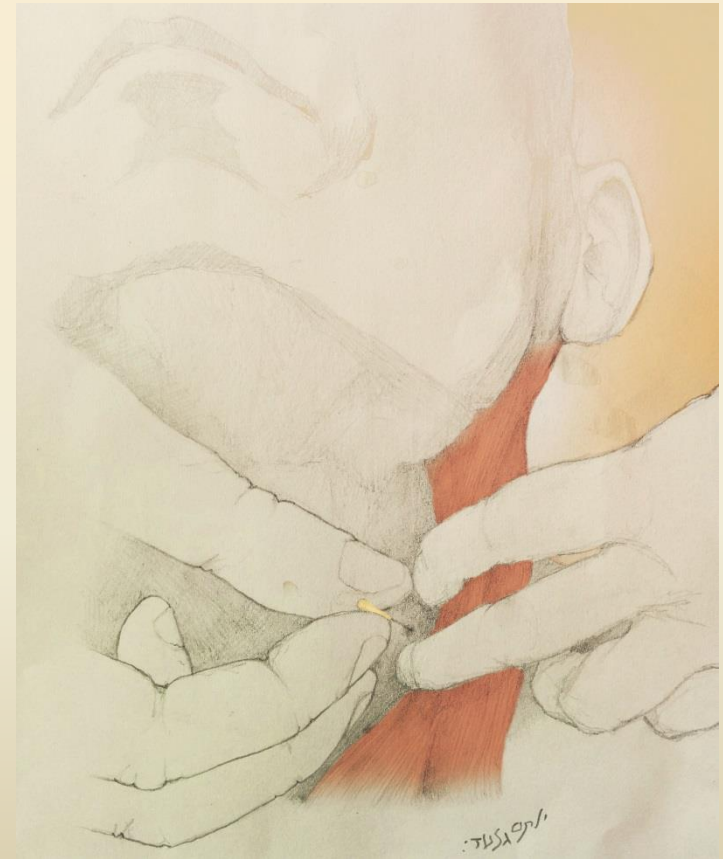
החברה הישראלית לרפואת שריר שלד  
The Israeli Society of Musculoskeletal Medicine



# Myofascial pain syndrome- building and implementing a treatment plan- with introduction to dry needling

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# A patient...

- 72 year-old female
- Many years of low back pain radiating to the buttocks
- Aggravated by walking, alleviated by rest
- Has tried everything, desperate...



## On physical examination

- Lumbar erectors and right quadratus lumborum stiff and tender

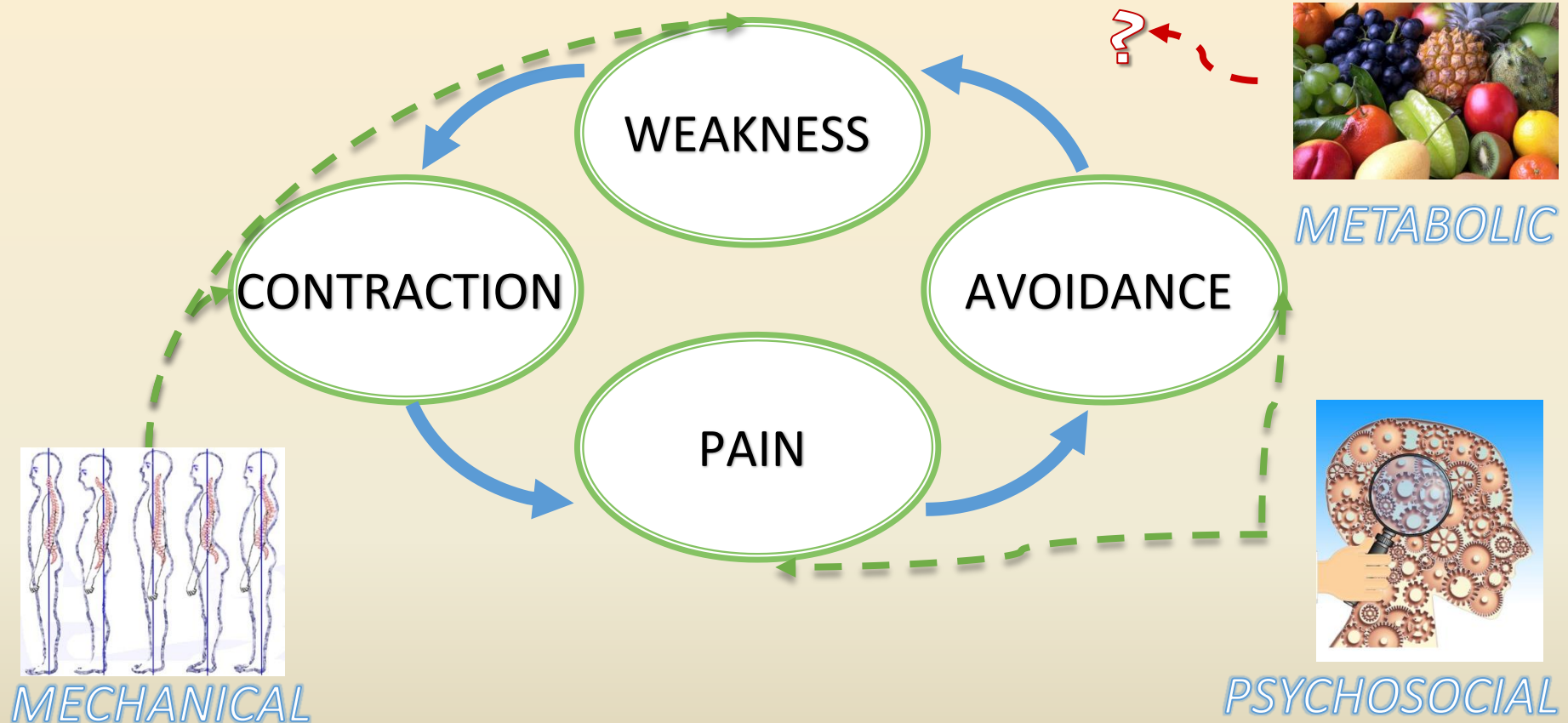
- No further significant findings

**What treatment  
plan can we offer  
this patient?**



**Myofascial pain syndrome of  
lumbar erectors, quadratus lumborum rt>lt**

# THE EFFECT OF PERPETUATING FACTORS



# MYOFASCIAL TREATMENT PLAN

1

Muscle strengthening

2

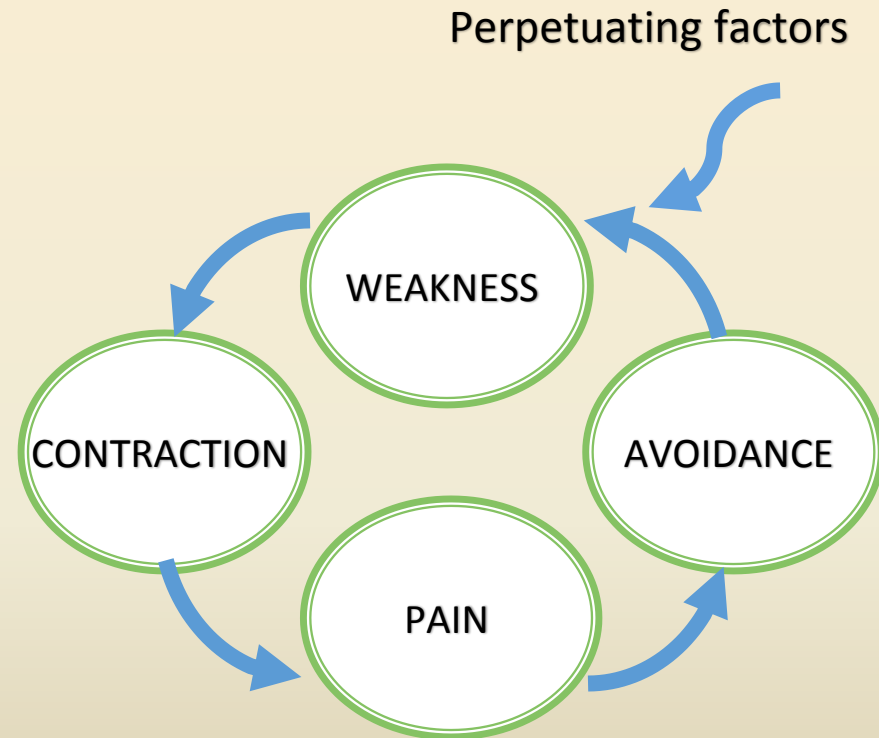
Cognitive rehabilitation

3

Manual therapy

4

Neutralizing perpetuating factors



# MUSCLE STRENGTHENING

1

***Our goal – to treat the muscle weakness (relative or absolute)***

## 1. Which kind of activity?

- No convincing evidence on the preferred type of activity.
- Reasonable to start with aerobic exercise, leaving resistance training for later.
- No clear advantage to a specific activity: walking, swimming, cycling etc.

## 2. How long and how often?

- Aim for daily exercise.
- Gradual increase in duration.
- Dedicated activity more effective than incidental.





# MUSCLE STRENGTHENING

## Challenges

1

### *The couch potato*



- Typically absolute weakness
- Very gradual training program
- Therapeutic agreement
- Exercise diary
- Ask and give feedback in every visit

### *The sports addict*



- Often relative muscle weakness
- Typically in weekend trainers
- Physical activity itself may become a perpetuating factor
- Begin by decreasing the duration and intensity and increase the frequency of exercises

# MUSCLE STRENGTHENING

1

## *The evidence*

1. Physical activity is modestly efficacious in subacute and chronic low-back pain.
2. Physical activity is effective in preventing recurrence of low back pain.

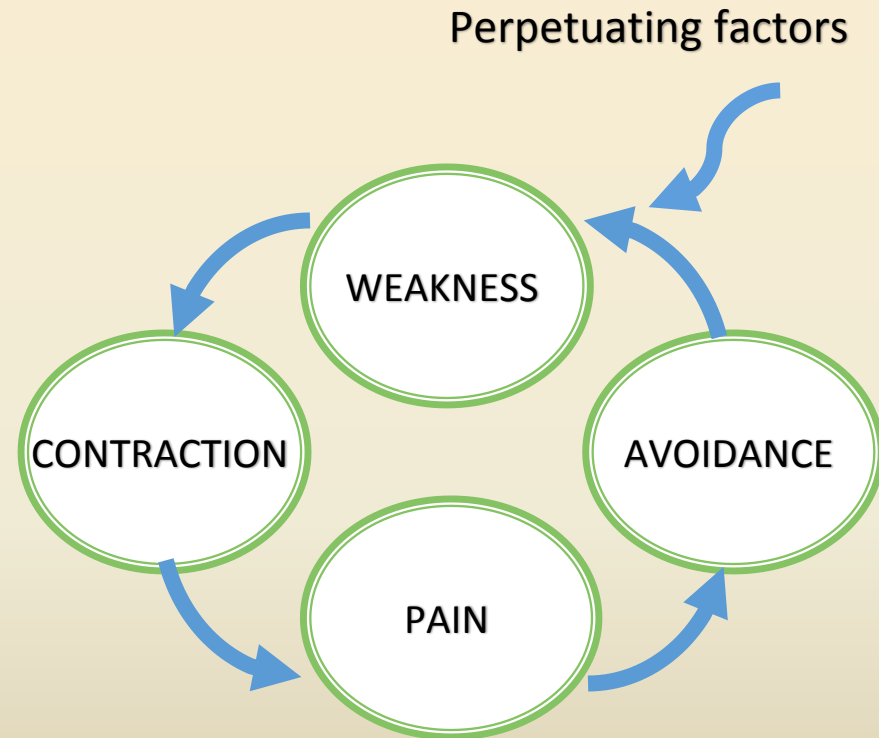


COCHRANE SUMMARIES 2/2011



# MYOFASCIAL TREATMENT PLAN

- 1 Muscle strengthening
- 2 Cognitive rehabilitation
- 3 Manual therapy
- 4 Neutralizing perpetuating factors



# Cognitive Rehabilitation

2

*Our goal – gradual return to activity*

## Challenges

- Negative thinking and false beliefs
  - **Catastrophizing** *“My back’s a wreck”*
  - **Seeing the glass half empty** *“I can no longer work / clean the house / exercise”*
  - **Pessimistic predictions** *“It’s my age, I’m not going to get any better”*
- Conditioning
  - *“Each time I go for a walk, I regret it”*

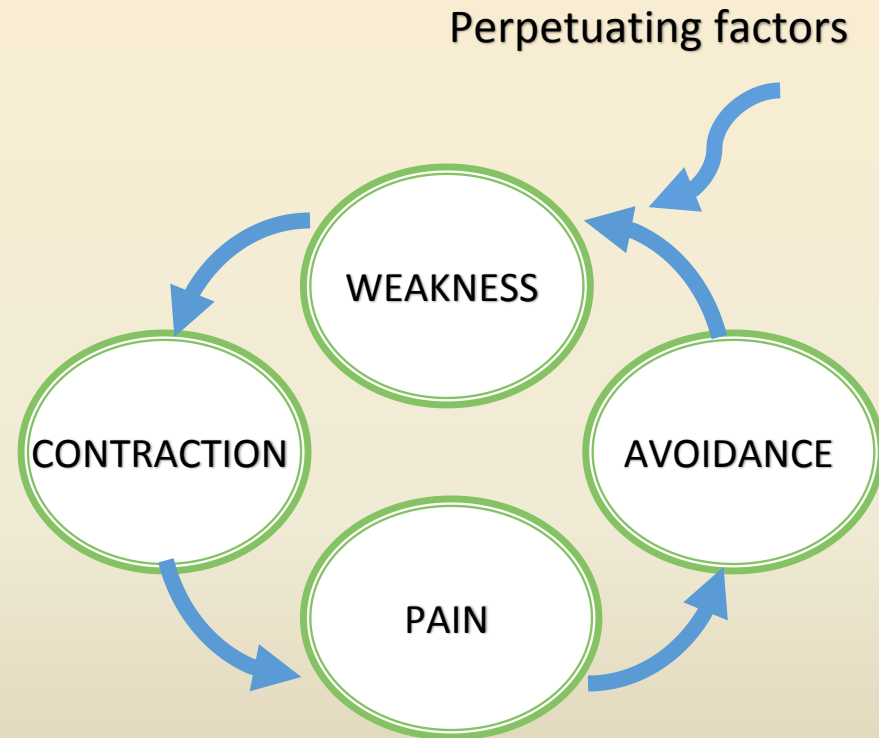
# Cognitive Rehabilitation

## 2 *Tools*

- Patient visit is a great opportunity for cognitive treatment.
- During the visit we communicate both verbal and non-verbal messages:
  - The limited significance of imaging tests
  - Emphasizing normal findings in the physical exam
- Reframing and expectations
- Empowering the patient

# MYOFASCIAL TREATMENT PLAN

- 1 Muscle strengthening
- 2 Cognitive rehabilitation
- 3 **Manual therapy**
- 4 Neutralizing perpetuating factors



# Manual Therapy

3

*Our goal – reducing pain and improving ranges of motion*

## Options

- Dry needling (intramuscular stimulation, IMS)
- Physical therapy
- Massage
- Chiropractic treatment
- Osteopathic treatment



# Manual Therapy

3

## *Which one to choose?*

- No convincing evidence that one method is superior
- Choice based on patient preference
- ...and the experience and availability of therapists

## *Assessing efficacy*

- Improvement is expected after 4-5 treatments
- Many times function improves before pain does
- If treatment ineffective – try another





# Manual Therapy

3

## *What about the efficacy?*

- All modalities have been shown to be effective, usually not on their own but as a part of a rehabilitation plan
- In addition to the specific effect all have the non-specific advantages of:
  - Human contact
  - Doing
  - An opportunity to use the treatment session for CBT.



# Manual Therapy

3

## *At home*

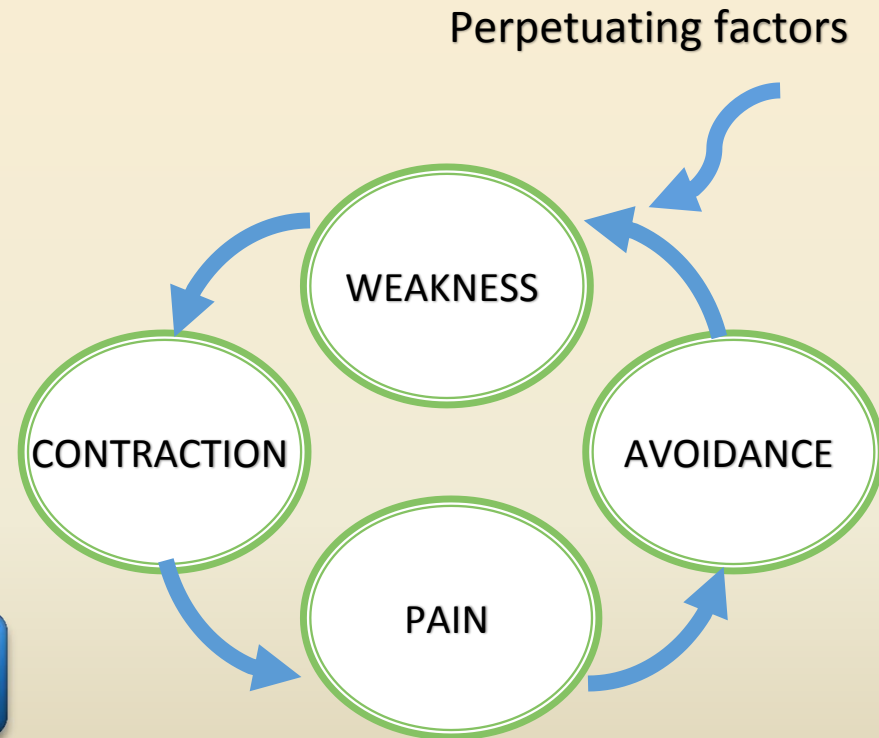
- Stretch exercises
- Massage
- Local cooling/heating
- Trigger point compression
- TENS (transcutaneous electrical stimulation)



# MYOFASCIAL TREATMENT PLAN

- 1 Muscle strengthening
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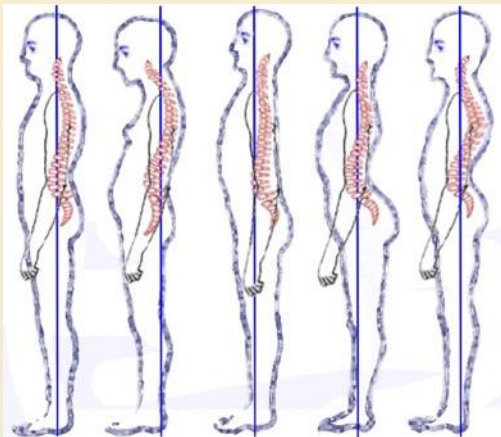
4 Neutralizing perpetuating factors



# Neutralizing perpetuating factors

4

## MECHANICAL



### Structural

scoliosis  
Leg length discrepancy  
Vertebral fractures  
osteoarthritis  
Lumbar fixation

### Postural

ergonomics  
carrying a purse/bag  
Back-pocket wallet

# Neutralizing perpetuating factors

4

## PSYCHOSOCIAL



## METABOLIC



Common problems	Possible solutions
Depression, anxiety, stress, anger, litigation	Psychotherapy, biofeedback, pharmacotherapy

Statistical correlation between myofascial pain and:  
**Hypothyroidism, iron deficiency, B12 deficiency**

# Reassessment

- Reassess weekly/biweekly
  - Ask and give feedback on exercise program implementation
  - Cognitive treatment
  - Myofascial evaluation and treatment
  - Assessment of perpetuation factors





# MYOFASCIAL TREATMENT PLAN

1

Muscle strengthening

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Manual therapy

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Neutralizing perpetuating factors



Perpetuating factors

WEAKNESS

AVOIDANCE

PAIN



# PHARMACOTHERAPY?

## *In acute myofascial pain*

- NSAIDs are effective.

## *In chronic myofascial pain*

- Limited efficacy of analgesics, including strong opioids.
- Significant risk in chronic use of opioids and anti-inflammatory medication.
- Analgesics may be used intermittently, to allow for physical activity. Simple analgesics may suffice.
- Reassess often and discontinue if ineffective or when significant side-effects appear.



# SUMMARY

- 1 Muscle strengthening
- 2 Cognitive rehabilitation
- 3 Manual therapy
- 4 Neutralizing perpetuating factors

