Team-Based Care: Communication & Shared Decision-Making

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Disclosures

• The authors have nothing to disclose
Learning Objectives

• Use consistent messaging to explain pain to a patient
• Identify 5 key domains of best practice pain care
• Understand the role of shared decision making in simplifying care planning
• Recognize features of complex pain in a patient presentation
Changing the Conversation about Pain: Pain Care is Everyone’s Job

Oregon Pain Management Commission (OPMC)
Updated: January 2018

http://www.oregon.gov/oha/HPA/CSI-PMC/Pages/module.aspx
Mary: Initial Visit

- Reason for visit: left knee pain x 8 weeks
- History: Gradual onset, no known injury
- Pain: Verbal analog scale (VAS) = 7/10

Orders:
- X-ray
- Physical Therapy
- Hydrocodone- Acetaminophen PRN
Mary: Follow-up Visit

- Pain is no better; pain score= 7/10
- Hydrocodone (60 MED)
- Physical therapy caused more pain
- X-ray Results:
  - Moderate/severe osteoarthritis
Mary: Follow-up Visit

- Pain is no better; pain score = 7/10
- Hydrocodone (60 MED)
- Physical therapy caused more pain
- X-ray Results:
  - Moderate/severe osteoarthritis

Orders:

- Physical therapy discontinued
- Change medications to a long acting formula of oxycodone
Mary: Today

- Pain persists
- Joint Injections x 2
- **Surgery: Total Knee Replacement**
- Medication daily dose is now 250 MED
- **Pain spreading throughout left leg as well as in right knee, and in the low back, thoracic spine and neck**
How Pain Works

https://www.youtube.com/watch?v=MqoS7RUrUqg
Old Model

\[ \text{Pain} = \text{Tissue Damage} \]
Leads to:

- External locus of control
- Perception that pain is mysterious and unmanageable
- “Failed” interventions
Pain always results from bodily damage?
Pain always results from bodily damage?
"Hey, there is something wrong down here."

Nociceptive input sends danger message
New Understanding

Pain output based on threat assessment
New Understanding
Complex Pain

Pain persists, increases, spreads due to central sensitization
The brain changes automatically in response to input.

- Occurs with all pain
- Pain can be reversible
### Brain functions frequently associated with pain processing

<table>
<thead>
<tr>
<th>Function</th>
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<tbody>
<tr>
<td>Pre motor planning</td>
</tr>
<tr>
<td>Problem solving</td>
</tr>
<tr>
<td>Memory</td>
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<tr>
<td>Visual information</td>
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<td>Spatial orientation</td>
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<td>Sensory input regarding body part specificity</td>
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<tr>
<td>Expectation</td>
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<tr>
<td>Stress</td>
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<td>Fear</td>
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Repetition reinforces the strengthening of brain pathways.

The brain changes:

- Pathways are strengthened
- More brain functions involved
Pain as an emergent rather than linear process
New Understanding Complex Pain

- Loss
- Depression/Anxiety
- Fear Avoidance
- Allodynia or Non-harmful Stimulus
- Hyperalgesia or Increasing Pain
- History of Trauma or PTSD
- Pain Catastrophizing
- Widespread Pain or Transient Locations
Neuroplasticity can work FOR us by flooding the brain with healthy input using:

- Senses
- Thoughts
- Beliefs
- Memories
- Emotions
- Movement
- Activity

Managing and Coping with Chronic Pain

VS.

Understanding and Treating Persistent Pain

Reference: “Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research,” Board of Health Science Policy, Institute of Medicine, of National Academies, Washington 2011

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What We Say Matters! Danger & Threat

MRI and X-Ray results

THREAT!

Fear of movement

Struggles in living with pain

Medication is the only thing that can help me
Pain Education As A Treatment Intervention


Decrease in utilization of services postoperatively  (Adriaan Louw, PhD, PT, et SPINE Volume 39, #18)


Key concepts

• All pain is real
• All pain comes from the brain and the nervous system and is a complex process
• Pain is not equal to harm
• Tissue injury (nociceptive input) is neither necessary nor sufficient to experience pain

From Lorimer Moseley, Understanding and Explaining Pain, course material
Pain Care is Everyone’s Job
Talking about pain changes beliefs

Changing beliefs changes threat value

Changing threat value changes the pain experience
Other key skills:
• Motivational interviewing

- Express Empathy
- Avoid argumentation
- Roll with Resistance
- Support self-efficacy
- Develop discrepancy
Other key skills:

- Trauma Informed Care
What We Say Matters: Safety & Hope

Understand pain

Quiet your worry

Sore, but safe

Normal age-related changes

Bring some FUN back in your life!
Knowledge of Pain: Key Concepts

Understanding Pain Improves Pain Itself

- Decreased fear avoidance
- Diminished catastrophizing
- And improved function

Pain education is a key treatment intervention.

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Knowledge of Pain: Strategies

- Explain pain using language that:
  - Decreases threat
  - Instills hope
- Use Handouts and videos
- Pain education classes

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Shared Decision Making:

- Helps determine where to begin
- Encourages active participation
- Identifies motivation
- Requires permission

Available on the Oregon Pain Management Commission (OPMC) website or in Resources. Select for the Providence Persistent Pain Toolkit.
"We now understand some things about pain differently. And we know that when a person understands pain better, it can actually help in several ways. You may already know a great deal, but would you be willing to watch a video for a few minutes so that we can talk about it and build a plan together?"
Energy
Coping with pain drains energy. Lack of energy makes it hard to be active and stay in shape.

Sleep
Pain and anxiety make it hard to sleep. Lack of sleep makes pain worse and lowers energy.

Mood
Chronic pain and the limits it puts on your life can lead to depression, anger, and anxiety. These feelings make coping with pain harder.

Activity
Pain and lack of energy make it hard to be active. Lack of exercise worsens pain.
Key Domains: Mood

- Knowledge of pain
- Sleep
- Nutrition
- Activity
- Mood
Mood: Key Concepts

- Mood impacts pain. Factors impacting pain:
  - History of trauma
  - PTSD
  - Depression
  - Anxiety
  - Isolation
  - Ongoing stress

- Pain is a stressor which results in chemical changes such as the release of cortisol and proinflammatory cytokines affecting tissue regeneration, immune function and metabolic controls which in turn increases pain.

- Decreasing pleasurable activities increase the focus on pain

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Mood: Strategies

- Engaging in pleasurable and social activities
- Meditation/mindfulness-relaxation
- Consider referral to behavioral health for:
  - Cognitive Behavioral Therapy
  - Acceptance and Commitment Therapy

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
What is CBT for Chronic Pain?

• Widely researched and shown to be effective with many mental and behavioral issues

• Time-limited psychotherapeutic approach

• Encourages active, problem solving approach, self-management

• Focuses on the relationship between cognitions (thoughts), emotions (feelings) and behaviors

• Improves function and quality of life
Objectives of CBT-CP

- ↓ the negative impact of pain on daily life
- ↓ pain intensity
- ↑ physical and emotional functioning
- ↑ effective coping skills for managing pain
Adapted from Wenzel, Brown, Karlin 2011

Ex. If back pain is experienced standing up from a chair a person may feel discouraged and frustrated (emotion) And think, “if I try to do anything today I’m going to hurt more (thought) which may lead to staying in their recliner and avoiding moving for the rest of the day (behavior)
Negative thoughts about pain can lead to maladaptive coping and increased suffering and disability

**Thought:** “I have DDD.” “My back is crumbling”

**Emotion:** fear

**Behavior:** seek additional medical treatment

**Idea:** change wording from “DDD” to “normal age related changes.”
Hurt vs Harm & Fear of Movement (kinesiophobia)

Thought: “pain means I am hurting myself.”
Emotion: fear (of pain)
Behavior: stop all activity, guard, protect, hold breath
Anxiety & PTSD

Thought: “I feel overwhelmed.” “I feel out of control” “nobody understands or believes me.”

Emotion: fear, anxiety

Behavior: shut down
Catastrophizing = magnifying the negative and anticipating the worse case scenario

**Thought:** “my pain will never stop” or “nothing can be done to improve my pain.”
“If this pain continues I will end up in a wheelchair like my mother”

**Emotion:** feel helpless and overwhelmed, anxiety

**Behavior:** stop all activity
Depression or negative affect

Thought: “I can’t do anything that I enjoy” “Last time I went to the park with my kids I had a flare up” “I feel guilty I can’t take care of my kids, spouse, contribute to the family like I want to.”

Emotion: depression, sadness

Behavior: withdrawal from activity
Loss of self and identity

Thought: “I’ve always worked so hard to be the best ______. Who am I now?” “I have lost my independence.”

Emotion: shame, sadness, grief

Behavior: stop activity, socializing, getting dressed, doing things enjoy doing
Black and white thinking

**Thought:** “If I can’t _____ like I did before, I am not going to do anything at all.”

**Emotion:** anger, sadness

**Behavior:** stop all fun activity
Stop Shoulding On Yourself

Thought: “I should be able to dance all night long, go to the mall all day with my friends, mow the lawn, fish with my buddies provide for my family like I used to.”

Emotion: shame, guilt, sadness

Behavior: retreat into self. Stop socializing and going out
Role of the family & others?

May require helping them understand pain

setting boundaries

getting rid of toxic relationships

improving communication skills
THREAT OR TRAUMA

IMMEDIATE RESPONSE
SNS ACTIVATION

SURVIVAL:
- HEART RATE
- RESPIRATION
- BLOOD TO MUSCLES

SENSE OF SAFETY:
RETURN TO HOMEOSTASIS
(BALANCE OF SNS AND PNS)

SENSE OF SAFETY:
RETURN TO HOMEOSTASIS
(BALANCE OF SNS AND PNS)

SENSE OF ONGOING THREAT:
- SYSTEM LEFT TURNED ON
- CHRONIC STRESS

MAINTENANCE
- DIGESTION
- SLEEP
- REPRODUCTION AND SEX DRIVE

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What Happens When Stress Continues
Pain becomes the lion following you around...

- Increased pain
- Depression
- Mood swings
- Cell death in the hippocampus
- Memory changes
- Poor tissue healing
- Weight gain
- Altered immunity

(From Explain Pain, 2003)
Rethinking Pain

Our stress response creates chemical changes that cause pain

- Pain
- Stress Response
- Release of Inflammatory Chemicals
- Quelling Stress Response
- Anti-Inflammatory Chemicals
- Pain
- Sleep

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Phrasing for Basic Pain Care: Role of Stress and Suffering

“Lowering your stress response to pain will reduce your pain. Here is how:

The same parts of our system that work hard when we feel stress also work hard when we feel pain. That’s because both feelings are part of our Emergency Response System. When our brain senses danger, it activates this system. Stress doesn’t directly cause pain. But stress can make pain worse and it can make pain last longer.”
Quieting stress response quiets pain

Related problems:
- Poor sleep
- Poor digestion
- Healing difficulties
- Pain and achiness all over
"Learning tools to manage stress, such as relaxation and mindfulness can help reduce pain."

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Diaphragmatic Breathing

To learn deep breathing:

https://www.drweil.com/videos-features/videos/breathing-exercises-4-7-8-breath/

Headspace.com
Calm.com
Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.

Jon Kabat-Zinn

Free Mindfulness Based Stress Reduction site: https://palousemindfulness.com/
Mindfulness Exercise:
ACT Exercise for handling stressful thoughts...leaves on a stream
Physiological Quieting Video
“People don’t hurt if they have something better to do.”

W. Fordyce, Ph.D
Their Shrinking World…

Our goal is to help people get their life back…
Neuroplasticity

The ability of the brain to form and reorganize synaptic connections, especially in response to learning or experience or following injury.

Remember: “The nerves that fire together wire together.”
Goal of ACT is to help you live a rich, full, and meaningful life while effectively handling the pain that inevitably comes your way.

ACT uses acceptance and mindfulness processes and commitment and behavior change process to produce greater psychological flexibility.
Getting back to living life in a valued direction
Sleep: Key Concepts

- Sleep/wake cycle is often disrupted
- Fatigue exacerbates chronic pain
- Rest is essential to rejuvenate and repair tissues
- Calming the nervous system can promote rest

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Sleep: Strategies

- Improve sleep with sleep hygiene principles:
  - Consistent sleep/wake cycle
  - Paced exercise and limited napping
  - Relaxation/mindfulness training

- Cognitive behavioral therapy for insomnia (CBT-I) [http://www.cbtforinsomnia.com/]

- Address sleep apnea

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Tips for Better Sleep

1. Stick to the same bedtime and wake-up time, even on the weekends.
2. Practice a relaxing bedtime ritual.
3. Keep the bedroom cool, quiet and dark.
4. If you can’t sleep, go into another room and do something relaxing until you feel tired.
5. Use bright light in the morning to support your natural (circadian) rhythms.
6. Wind down by avoiding electronics 60 minutes before bed.
7. Sleep on a comfortable mattress and pillows.
8. Avoid alcohol, cigarettes and heavy meals in the evening.
9. Avoid naps longer than 20 – 30 minutes.
10. Exercise daily.
Cognitive Behavioral Therapy for Insomnia (CBT-i)

- CBT-I brief multicomponent tx that addresses patient’s cognitions and behaviors that interfere with sleep
- Stimulus control – reduction of conditioned arousal which happens when bedrooms become associated with wakefulness and inability to let go, relax and fall asleep
  - Get out of bed when can’t sleep
  - Use bed for sleep and partner time
- Sleep restriction therapy – reducing the amount of time spend in bed to build up pressure for sleep
  - Avoid excessive time in bed
- Reduce physiological hyperarousal and cognitive arousal
- Scheduling worry time
  - Don’t worry, plan, or problem solve in bed
- Creating a time to unwind before sleep
The National Sleep Foundation is dedicated to improving health and well-being through sleep education and advocacy. It is well-known for its annual Sleep in America's poll. The Foundation is a charitable, educational, and scientific not-for-profit organization located in Washington, DC. Its membership includes researchers and clinicians focused on sleep medicine, health professionals, patients, families affected by sleep-related disorders, and more than 100 healthcare facilities.

www.sleepfoundation.org

Sufficient sleep is important for your health, well-being, and happiness. When you sleep better, you feel better. The National Sleep Foundation Sleep Diary will help you track your sleep, allowing you to see habits and trends that are helping you sleep or that can be improved.

How to Use the National Sleep Foundation Sleep Diary

- Our sleep diary only takes a few minutes each day to complete.
- We've given you diary entries for seven days; you may want to make several copies.
- Review your completed diary to see if there are any patterns or practices that are helping or hindering your sleep. Is your bedroom a sanctuary for sleep? Or are there too many distractions? Did your nap interfere with a good night's sleep?
- Make incremental changes. Changing one habit at a time can set you on the path to healthy sleep.

Visit sleepfoundation.org for more sleep tips.
Healthy balance in your day creates better sleep

- With a healthy balance of activity and rest over the course of your day, it becomes easier for you to move into the restful state that allows for good sleep.
- Examples of being more active: traffic, excited conversations, frustration, rushing across street, vigorous exercise or labor, being scared and worried
- Examples of being more restful: sitting down to eat a meal without rushing, taking a walk and enjoying your surroundings, listening to music, paying attention to praise from someone, pausing to collect your thoughts, meditation and prayer
- While we think of the day as being active and the night being for rest, there are actually a lot of opportunities for rest over the course of the day, which helps your system be more calm overall, and makes it easier to get to sleep

Lack of balance during the day creates poor sleep

- So many people with pain have difficulty with sleep and this helps explain it.
- If you are on red alert all day long, rushing to get things done, worried about things in your life, rushing through meals, having stressful interactions with others, your system has to make a very big change to be able to be restful at night.
"As little as 10 minutes of aerobic exercise, such as walking or cycling, can significantly improve nighttime sleep quality, mood, and energy level."

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Feedback.
Debrief and break
Key Domains: Activity and Pacing

- Knowledge of pain
- Sleep
- Nutrition
- Mood
- Activity
Fear Avoidance

Avoidance of activities associated with pain due to beliefs that the pain itself is harmful
A picture doesn’t tell the whole story

These images show X-rays of two knees. On the left, we see severe degeneration of the joint, and on the right, we see a healthy knee.

Up to half of people with severe arthritis in the knee have no symptoms.

Ten percent with no arthritis on an X-ray have severe pain!

Pain ≠ Harm
Improvement in movement and function with pain education

Before Intervention: 10 degrees forward bend

Reproduced with permission of author

Improvement in movement and function with pain education

After the 1\textsuperscript{st} session:

72 degrees forward bend
Activity and Pacing: Key Concepts

Return to activity:

- Reverses deconditioning
- Improves sleep
- Healthy input to the brain

Expect it to be a gradual process:

- Encourage your patient that they are safe to move
- Avoid flareups but don't fear them

You're an important coach!

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
About Pacing

Pain Response – *With* Persistent Pain

New Potential Injury

Flare Up

New Pain Response

https://www.youtube.com/watch?v=hjenuiXDUZg
Activity and Pacing: Strategies

- Pacing to Return to Activity:
  - Get support and encouragement
  - With a professional, community group, or a friend

- Doing more is more important than "exercising"
- Normalize discomfort
- Ideas:
  - Aquatic exercise
  - Gentle therapeutic yoga
  - Tai Chi
  - Simple whole body movement, focusing on breathing comfortably

Sore but safe

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
"In this situation, the things we do in everyday life aren't making our condition worse, even if what we are doing causes discomfort. As you begin to increase your activity and your body adapts to new challenges, you will probably feel sore and stiff, which is completely normal. Gentle movement will ease the soreness, over time."

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Let's move a bit!!!
Movement sequence

• Simple whole body movement:
  • Body scan
  • Breathing smoothly and gently
  • Move entire spine a little into flexion, extension, sidebending and twisting
    • Try this keeping hips still, and letting hips move
    • Try this holding your breath, and breathing easily
  • Round the trunk and fold the arms. Open the trunk and lengthen the arms
  • Hula hoop
  • Reach arms forward or side and up with breathing
  • Lengthen through each foot and up through spine to top of head
  • Weight shift forward/back, and side/side
    • Notice movement of hips, spine, rib cage
Key Domains: Nutrition

- Nutrition
- Knowledge of pain
- Sleep
- Mood
- Activity
Nutrition Key Concepts

Helping your patient change their diet may be one of the most difficult behaviors to change, but one of the most impactful.

Our patients have macronutrient excess and micronutrient deficiency which leads to an increase in pain and chronic disease.
Signs and symptoms of nutritional deficiency

• Thyromegaly- Iodine
• Bleeding gums- Vitamin C
• Dygsusia- Zinc
• Cheilosis and glossitis- Riboflavin, niacin, pyridoxine, iron
• Nail spooning- selenium, iron
Signs and symptoms of nutritional deficiency

- Easy bruising - vitamin C and K
- Impaired night vision - Vitamin A
- Edema and muscle wasting - protein
- Tetany - Calcium and magnesium
- Bone pain, bowed knees, curved spine - Vitamin D
Nutrition Key Concepts

• Limit added sugar and sugary foods from ones diet
• Drink enough fluids, especially water
• Eat lots of low starch vegetables
• Eat healthy fats and avoid the bad fats
Understanding Why
To help our patients make changes
Limit added sugar

• Added sugar in the diet has a deleterious effect on the microbiome
• Complex carbohydrates contain prebiotics that help maintain healthy microbiota
Limit added sugar

“You are what you eat”

OR

“You are what bugs you feed”
Microbiome and Pain

• There are 10x as many microbes and human cells in the body
• There are 150x as many microbial genes as human genes
Patient Take Home

- Added sugar increases pain by disrupting the balance of chemistry in our bodies, causing inflammation which leads to more pain.
- Keep your sweetest foods to fresh fruit if possible.
- Diet drinks also trick the body and may be as bad as or worse than sugar
Drink enough fluids, especially water

• The body is 60% water
• Chronic dehydration can contribute to pain by disrupting the body’s ability to deliver nutrients to the cell and remove metabolic waste
• The integrity of connective tissues such as ligaments, tendons, intervertebral discs and synovium are highly dependent on hydration
Drink enough fluids, especially water

• Soda and coffee can contribute to the urinary loss of minerals and water
Patient Take Home

• Drinking plenty of water is a great way to keep yourself healthy.
• Limit coffee, tea and soda pops.
• These cause your body to lose fluids which can lead to increased pain.
Eat lots of low starch vegetables

• Vegetables are the best source of minerals and phytochemicals

• Minerals that have been studied to improve nociception:
  • Magnesium
  • Copper
  • Zinc
Eat lots of low starch vegetable

**Trace minerals**
- Boron
- Molybdenum
- Nickel
- Manganese
- Selenium
- Copper
- Chromium
- Silicon
- Cobalt...

**Phytochemicals**
- Flavonoids
- Glucosinolates
- Phenolics
- Carotenoids
- Chlorophylls
- Isothiocyanates

• And these are just categories for one vegetable, broccoli
Eat lots of low starch vegetables

Pitfalls of fortified foods
• Missing key nutrients
• Overdosing nutrients
  • Folic acid
  • Vitamin A

Vitamins and Minerals: Calcium Carbonate, Zinc and Iron (mineral nutrients), Vitamin C (sodium ascorbate), A B Vitamin (niacinamide), Vitamin B₆ (pyridoxine hydrochloride), Vitamin B₂ (riboflavin), Vitamin B₁ (thiamin mononitrate), Vitamin A (palmitate), A B Vitamin (folic acid), Vitamin B₁₂, Vitamin D₃.
Patient Take Home

• Vegetables help control pain and inflammation because they balance your body chemistry and add water back to your system (hydrate).

• Vegetables have lots vitamins and trace minerals especially magnesium that directly limit painful nerve signaling and inflammation.
Eat healthy fats and avoid the bad fats

• The ideal ratio of omega 6:3 per day is 4:1

• The average omega 6:3 ratio in Americans is 12:1 - 25:1

Hungry Planet by Peter Menzel
Eat health fats and avoid the bad fats

• Replace arachidonic acid in the cell membrane with EPA of DHA to impact prostaglandin and leukotrienes
• Decreases COX2, PLA2 and LOX5
• Decreases proinflammatory cytokines (IL1, IL6 and TNFa)
• Directly help resolve inflammatory processes though the production of resolvins and lipoxins
Patient Take Home

• Good fats help control inflammation: nuts, seeds, olive, fish or flaxseed oil and oily fish such as salmon or sardines.

• Bad fats add to inflammation: Fats that are solid, like lard or margarine.

• Deep-fried foods should be avoided.
Diet increases pain by:
- Prostaglandin -2 is a compound that produces inflammation increasing pain globally.
- Processed foods and animal fats found in a Standard American Diet promote prostaglandin -2.

Diet decreases pain by:
- Prostaglandins 1 and 3 are compounds that decrease inflammation, thereby decreasing pain.
- These are found in colorful vegetables and lean proteins in the Mediterranean Diet.

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Nutrition: Strategies

Understanding barriers to better eating

- Access to grocery stores
- Lack of money
- Fatigue

Explore knowledge of healthy eating and cooking; assistance with

- Food security
- Transportation
- Cooking classes

A dietary log can be useful

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Nutrition: Resources

Change your food to change your pain

- Limit added sugar and sugary foods from your diet.
  - Added sugar increases pain by disrupting the balance of chemicals in your body, causing inflammation, which makes you more sensitive to pain.
  - Drink water instead of sugary drinks to help you feel full and experience less pain.
- Drink enough fluids, especially water.
  - Water flushes toxins from your body that can cause pain.
- Eat lots of low-starch vegetables.
  - Vegetables help control pain and inflammation because they balance your body chemistry and help to neutralize the pain in your body (Chernoff System).
  - Vegetables have anti-inflammatory and bioactive substances that directly bind to painful nerve signaling and inflammation.
- Eat healthy fats and avoid the bad fats.
  - Omega 3 fats can reduce inflammation, reduce heart attack risk, and reduce the risk of developing diabetes.
  - Bad fats add to inflammation. Fats that are solid, like margarine or butter, are the worst.
- Deep-fried foods should be avoided.

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.

Ideas for Healthy Eating on a Budget

- Shop around the outside aisles of stores. Get fresh, less processed foods (you pay for the processing).
  - Buy fresh fruits and vegetables in season.
- Shop for recipes, like lentil soups, rice pilafs, and meat soups.
  - Use herbs and spices to add flavor without salt.
- Use canned or frozen low-sodium foods.
  - Use canned or frozen peas, beans, and corn.
- Be creative with vegetables, like adding zucchini to lasagna.
- Cut your own vegetables for salads.
- Choose whole grains instead of white rice.
- Look in the frozen food section.
  - Frozen foods are cheaper than fresh.
- Buy things in bulk and choose less-processed foods.
  - Buy a bag of rice, not little rice.
- Use canned beans, not dried.
- Save money by buying in bulk.
  - Buy in bulk, not in smaller packages.
- Save money by using coupons.
  - Use coupons for healthy foods instead of processed foods.
- Save money by planning your meals.
  - Plan your meals for the week.
- Save money by using leftovers.
  - Make rice and freeze it to use later.
  - Use the leftovers. For example, make grilled chicken one night and chicken soup the next night.

Don't fall for impulse.

- Take a deep breath.
- Make a shopping list and stick to it.
- Shop for foods you know you will eat.
- Don't be swayed by special sales or promotions.
- Only buy what you need to follow your food plans.
"If you think of pain like a fire, a bad diet pours gasoline on the fire, and the good diet pours water on the fire. There are foods we often eat that actually increase our pain through inflammation, like processed foods. And, there are also foods that decrease inflammation and pain such as fresh vegetables."

See Resources or visit the Oregon Pain Management Commission (OPMC) for the Pain Care Toolbox.
Key concepts

- All pain is real
- All pain comes from the brain and the nervous system and is a complex process
- Pain is not equal to harm
- Tissue injury (nociceptive input) is neither necessary nor sufficient to experience pain

From Lorimer Moseley, Understanding and Explaining Pain, course material
Additional Assessment

History: pain onset, gradual following unexpected death of mother.

Knowledge of pain and beliefs:

- STarT Back Assessment Tool: "It's not safe for a person with a condition like mine to be physically active."
- Believes medication is the only thing helping her.
Additional Assessment

Sleep:
- 4 hours per night maximum
- Naps frequently during the day

Mood:
- PHQ 4 = mod/severe psychological distress
- History of childhood trauma, depression and anxiety
Additional Assessment

Activity:
- Unemployed
- PEG Pain Screening = pain significantly interferes
- Oswestry Disability Index = severe disability
- No energy for hobbies

Nutrition:
- Convenience foods as she does not have energy to cook, difficulty in the kitchen
- Minimal consumption of fruits and vegetables
Role Play and Group discussion in 5 key domains

• Role play in 3s
• Group discussion about treatment strategies
Questions and discussion