PART ONE – INTRODUCTION TO PAIN



AFTER COMPLETING PART ONE, YOU SHOULD BE ABLE TO:

After completing part one, you should be able to:

- 1. Understand how theories effect how you, as a a healthcare professional, assesses and treats pain
- 2. Describe the biomedical theory and how it is not accurate
- 3. Describe the evidence-based theories that we should now use
- 4. Describe the evidence-based definition of pain
- 5. Demonstrate the ability to use the ICF model to organize information about pain

EVIDENCE-BASED PRACTICE (EBP)



EBP is an approach where healthcare professionals use research evidence, their clinical experience, and the patient's needs to make clinical decisions about the most appropriate treatment.



https://www.wcpt.org





THEORY

- Theory: A system of ideas that explains something
- Our theories influence how we treat patients
- Theories should be based in research



BIOMEDICAL THEORY

- Healthcare professionals have traditionally been taught in a biomedical model
- Tissue injury and tissue damage is the cause of pain
- Treating the tissue injury and tissue pathology will decrease symptoms and improve function

Tissue Injury Pain



BIOMEDICAL THEORY – CASE EXAMPLE

- Biological cause of pain = osteoarthritis
- Treatments:



- Educating the patient that osteoarthritis is a chronic condition so he will always deal with knee pain
- Educating the patient that he can manage his pain by avoiding certain activities in his daily life
- Using ultrasound to help with pain relief
- Teaching the patient ROM and strengthening exercises to help with pain relief



FIGURE 1. Descartes' model of pain perception. From *De Homine*. Leyden: Moyardus and Leffen; 1662.⁷



GATE CONTROL THEORY OF PAIN

- This is the first theory that described that biological, psychological, and social factors influence pain.
- Based on current research, this theory is <u>not accurate</u> because it describes pain messages being sent from the body to the brain and spinal cord.
- Current research describes that there are no pain messages sent from the body to the spinal cord and brain.







These ideas are based in the biomedical theory and are wrong:

- A person feels pain when pain signals are sent from the body to the spinal cord and brain
- There is a pain center in the brain
- There are pain receptors in the body



NEUROPLASTICITY

 Neuroplasticity: The nervous system's ability to change its structure and function



https://www.youtube.com/watch?v=ELpfYCZa87g

 Neural pathways are the tracks that connect one part of the nervous system with another part of the nervous system.



https://www.youtube.com/watch?v=ELpfYCZa87g



NEUROPLASTICITY

The nervous system changes in response to experience through changes in:

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- Neural pathways
- Synapses
- Axon
- Dendrites
- Neurons
- Cortex
- Chemical and hormonal levels
- Sensors

https://www.youtube.com/watch?v=Zf9bG-C5W34

EXPERIENCES THAT CAUSE CHANGES IN OUR NERVOUS SYSTEM

Thoughts Perform an activ		ming tion	Learning information		Forming a memory	
Reca	lling a nory	Inj		Dise	ease	

PHYSIOTHERAPY IS EFFECTIVE BECAUSE OF NEUROPLASTICITY



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The key message is that the nervous system changes based on what it experiences and we, as physiotherapists, can influence the nervous system to function better.



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NEUROPHYSIOLOGY OF PAIN

The neurophysiology of pain is defined as how the nervous system works when a person

experiences pain.

Kudrish: https://www.youtube.com/watch?v=N-PSad06kKk&t=10s English with Arabic subtitles: https://www.youtube.com/watch?v=Zv6RPoVZx9M



The biopsychosocial theory describes that pain results from an interaction of biological, psychological, and social factors that are unique to each person.



Our experiences, from eating a meal to experiencing pain, are influenced by sensations in our body, psychological processes, and things in our social environment.

Pain cannot be measured. But a person's pain experience can be understood.



- Biological:
 - Decreased active ROM
 - Leg weakness
 - Poor endurance of leg muscles
 - Mild swelling in both knees
- Psychological
 - Patient believes that the pain is permanent and that it will not get better
 - Patient is afraid to move their knees because they think the pain will get worse
 - Patient is avoiding daily activities due to knee pain and fear of knee pain
- Social
 - Patient is worried about not being able to work due to knee pain
 - Patient takes care of his elderly mother who has severe knee pain

- Treatment addresses biological, psychological, and social factors
 - Educate the patient that changes in the knee joints are normal with age, the pain is not permanent and the pain is not something to be afraid of
 - ROM, strengthening, and endurance exercises,
 - Teach patient how to ice and do gentle ROM exercises at home to reduce swelling
 - Teach patient how to do daily activities so that he no longer avoids physical activity and movement of the knees



DEFINITION OF PAIN

- International Association for the Study of Pain (IASP) established the globally recognized definition of pain
- Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage



Sullivan, 2008. Toward a Biopsychomotor Conceptualization of Pain -Implications for Research and Intervention



THE INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY AND HEALTH (ICF)

- The ICF Model is a framework for describing health, function, and disability.
- It was developed by WHO so that healthcare professionals all around the world would have one way to organize and communicate information about a patient.
- A tool to apply the biopsychosocial theory in your work with patients.



https://www.who.int



THE ICF MODEL

- Based on the biopsychosocial theory
- Does not focus on the health condition or the medical diagnosis but focuses on how a condition is affecting a person's ability to live their life fully

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- A person's function is a result of an interaction between all of the parts included in the ICF model
- Can be used by all healthcare professionals and with all ages, all conditions, and in all settings
- Includes positive environmental and personal factors.
- Used to:
 - Gather all the essential information about your patient
 - Organize this information
 - Create a treatment plan that will improve function

THE ICF MODEL

 Disability: Decreased ability to participate fully in life due to biological, psychological, social, and environmental factors

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 Functioning: The ability to participate fully in life due to biological, psychological, social and environmental factors





- She is in 12th grade and has pressure to perform well in school. She is afraid to move her arm because of the pain. She tells you she is feeling isolated from her friends and feels sad and anxious about her situation.



HOMEWORK

 We need to use this new information to make neural pathways






AFTER COMPLETING PART TWO, YOU SHOULD BE ABLE TO:

- I. Describe the biological process that happens as a person experiences pain
- 2. Define therapeutic neuroscience education
- 3. Describe the biological changes that increases the sensitivity of the nervous system
- 4. Describe the factors that contribute to the pain experience

5. Demonstrate the ability to educate a patient about the neurobiology of pain in a clear and simple way

THE NEUROBIOLOGY OF PAIN

- The neurobiology of pain: how the nervous system works when a person experiences pain.
- Therapeutic neuroscience education (TNE): a treatment for pain and disability that aims to change a person's thoughts and beliefs about their pain experience by teaching them about how pain is experienced.
- TNE is one of the most effective treatments for:
 - Persistent pain which is pain that has lasted for greater than 6 months
 - Preventing acute pain from becoming persistent pain
 - Preventing disability caused by pain
 - Treating disability caused by pain

You must understand the neurobiology of pain to be able to treat pain!

THERAPEUTIC NEUROSCIENCE EDUCATION (TNE)

- TNE treats pain by treating the psychological factors contributing to pain
- Research shows that persons of all educational levels are capable of understanding the neurobiology of pain
- TNE is most effective when:
 - You use language that is clear and simple
 - You use stories, analogies, and metaphors
 - It is relevant to the patient's experience, culture, and context
 - You use visual aids like pictures or videos

https://www.youtube.com/watch?v=Crjb07FguDI&t=33s

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CASE REPORT

Preoperative therapeutic neuroscience education for lumbar radiculopathy: a single-case fMRI report

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- Functional Magnetic Resonance Imaging (fMRI) pictures of the brain's activity
- This is the picture of the patient's brain while relaxing and watching an enjoyable movie.
- Red areas on a scan indicate that she is experiencing pain. There are no red areas here.



- While in the scanner, she was asked to move her back in a way that causes pain
- The red areas are the neural pathways that are involved in the pain experience
- More red areas = more pain

- The patient then immediately received TNE treatment to change the thoughts and beliefs that were contributing to pain
 - In a private room
 - One-on-one session with a physiotherapist skilled in TNE
 - 20 minutes
 - Used pictures
 - The patient actively participated by sharing her experience, ideas, and questions
- Patient received no other treatment



- She immediately went back in the fMRI
- She moved her back in the same way that caused pain before TNE
- Fewer red areas = Fewer neural pathways responsible for pain are activated
- Increased ROM during straight leg raise and lumbar forward flexion
- Decreased fear and anxiety about pain, movement, and her overall condition
- TNE causes immediate changes in how the brain is functioning which causes improvements in pain and movement

TNE

 Research has shown that people learn better when they can apply it to their lives and personal experiences.













- Common protective outputs:
 - Increased muscle tension
 - Increased speed of breathing
 - Sweating
 - Feeling of general discomfort, anxiety, or emotional stress
 - Chest tightness
 - Feeling alert of the environment including the physical space and the people around you



Common calming outputs:

- Decreased muscle tension
- Decreased speed of breathing
- Deep breathing rather than breathing from the top part of the chest
- Feeling relaxed, calm, and comfortable





General Process	The Process When You Step on a Nail
 The brain receives information from many sources and processes this information in many different areas in the brain. 	 1.The brain receives the following information: -Danger messages from the sensory receptors in the foot -Information about the environment including that there are nails and sharp construction equipment laying on the floor -Memories from when you experienced similar pain from accidentally cutting your finger with a knife. But this is not a conscious memory. -Anxiety that you may have a serious injury
2. Then the brain has to make a decision based on all of the information that it received. The brain has to decide if we are safe or if we are in danger. The brain is making this decision every second of our lives.	2. The brain decides that there are more signs of danger than there are signs of safety.
3. When the brain judges that there are more signs of danger than there are signs of safety, it determines that there is a need to protect.	3. The brain determines that you need to be protected from injury and danger.

General process	Process when you step on a nail
4. The brain produces specific outputs when it determines that there is a need to protect. One of those outputs is pain. This is because pain acts as an alarm to let us know that there are signs of danger and that we need to protect ourselves.	4. Your brain sends nerve signals so that you experience pain in the bottom of your foot.
5. The brain also has outputs causing decreased movement and changes in biology.	 5. The brain produces other protective outputs including: You stop walking Muscles in your body become tense You breathe faster You lift your foot off of the ground You become alert to the environment and the things that are going on around you Your thoughts focus only on the present and what is going on in this moment
6. All of these outputs (pain, decreased movement, and changes in biology) then contribute to signs of danger. In that way, a cycle of danger and pain is formed.	6. The brain continues to collect information. Now there are even more signs of danger than at the time you stepped on the nail. For example, there is pain in the bottom of your foot, your anxiety, the increased speed of your breathing, and the muscle tension in your body.
	The brain determines that there are more signs of danger than of safety, so the cycle of pain continues. You continue to experience pain in the bottom of your foot.





WHEN TISSUE INJURIES HEAL



The brain produces pain and other outputs so that the area of the injury will be protected so that it can heal.



As the tissue damage heals, the brain determines that there are more signs of safety than of danger, so the pain stops and the changes in movement and biology return to normal.



Because pain is always a decision by the brain, the following are true:

- It is not possible to have pain and not know about it
- It is possible to have tissue damage or an injury and not have pain
- It is possible to have pain without tissue damage
- Pain is always real and an individual experience

IT IS NOT POSSIBLE TO HAVE PAIN AND NOT KNOW ABOUT IT

Because pain is a sensory and emotional experience, it can only be experienced by a conscious and aware human.



IT IS POSSIBLE TO HAVE TISSUE DAMAGE OR AN INJURY AND NOT HAVE PAIN

The brain can decide that there are more signs of safety than of danger even when it has information about tissue damage or injury.





IT IS POSSIBLE TO HAVE PAIN WITHOUT TISSUE DAMAGE

The brain uses information from many sources to make the decision if we are safe or in danger - like our environment, memories, and emotions.

The brain can decide that there are more signs of danger than of safety even when it has no information about tissue damage or injury.



PAIN IS ALWAYS REAL AND AN INDIVIDUAL EXPERIENCE

- Every person's pain experience will be unique and individual based on their unique brain.
- No two people will experience pain in the exact same way even if they have the same injury.
- Do not label pain as "real pain" and "not real pain." <u>This is</u> wrong.

PAIN CANNOT BE TRUSTED

- Pain is not a reliable way to judge tissue the amount of tissue damage or injury
- Pain and tissue damage are not directly related
- Pain ≠ Tissue Damage



- There are sensors sensitive to chemicals, temperature, and mechanical pressure.
- Nociceptors: Sensors that are sensitive to signals from damaged tissue or the threat of damage.
- Nociceptors are are responsible for sending danger messages to the brain.
- There are no pain sensors.



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 When a danger sensor is stimulated, it opens and lets positively charged particles into the neuron.

2.The critical level of particles is reached

3. The action potential travels up the neuron.

4.This danger message, through the action potential, travels to the axon terminals.

5.The action potential causes chemicals to be released in the synapse,.

6.The danger message is sent from one neuron to the next.



Photo credit: Khan Academy

7. Danger messages are sent through neurons to the spinal cord and then to the brain.

8. The brain determines if there are more signs of danger or more signs of safety from all of the sources of information, including this danger message.

9. The brain decides that there are more signs of danger than of safety so the brain will create an output of pain changes in movement, and changes in biology.



Photo credit:Arthritis.org



NOCICEPTIVE CHANGES

- When there are more signs of danger than there are of safety, the brain wants more information so that it can protect you
- The brain causes changes in biology to make the nervous system more sensitive to danger messages so that it can protect you from further damage or injury.



NOCICEPTIVE CHANGES



THREE TYPES OF PAIN

- Nociceptive Pain: Pain caused by damage to the tissues.
- Neuropathic Pain: Pain caused by damage or disease to the central or peripheral nervous system.
- Nociplastic Pain: Pain that is caused by changes in the neurobiology of nociception and with no evidence of damage of the tissues or nervous system.
| Increasing the
neuron's resting
level of
excitement | Making the sensor
stay open longer | Increasing the rate
of sensor
production |
|--|---|--|
| | Increasing the
effectiveness of
danger neural
pathways | |

The brain increases the speed at which nociceptors are produced which causes there to be more nociceptors.

If there are more nociceptors, then more danger messages are sent to the brain.

I.When a danger sensor is stimulated, it opens and lets positively charged particles into the neuron.

2. The critical level of particles is reached

3. The action potential travels up the neuron.

- By making the sensors stay open longer, more positively charged particles to enter the neuron at one time.
- This causes more action potentials to travel up the neuron and bring the danger messages to the brain.
- By making this change, the brain receives more danger messages.

I.When a danger sensor is stimulated, it opens and lets positively charged particles into the neuron.

2. The critical level of particles is reached

3. The action potential travels up the neuron.



By increasing the resting level of excitement, a lesser amount of positively charged particles are needed to reach the critical level that sends the danger message.



Before Pain

Why Do I Hurt?; Louw 2013 OPTP

- Neural pathways that are responsible for protection will look at the information form the many sources and will determine if pain should be produced.
- In response to the input of nociceptive pain, the brain can increase the effectiveness of these danger neural pathways.



The brain produces these changes in the area of the injury so that that area can be protected until it heals.

Increasing the rate of sensor	
	Increasing the effectiveness of danger neural

NOCIPLASTIC CHANGES

- Nociplastic pain is pain that is associated with changes in the neurobiology of nociception and with no evidence of damage of the tissues or nervous system
- Nociplastic changes are the same as the nociceptive changes
- Central sensitization is another term used to describe when the nervous system has increased sensitivity to danger message due to nociplastic changes.

NOCIPLASTIC CHANGES

- Nociplastic changes occur even when though is no tissue damage or injury that requires protection and nociceptive changes occur when there is tissue damage that requires protection.
- When a person has persistent pain that has lasted over 6 months and there are no signs of nociceptive pain or neuropathic pain, it is likely that nociplastic changes are contributing to the pain experience.

NOCIPLASTIC CHANGES

Allodynia: pain with things that are normally not painful.



Hyperalgesia: More pain than expected from a thing that is usually painful.



- Activation of action potentials with little or no stimulus
- Abnormal activity in axons that are not directly involved in the nervous system damage or disease
- Activation of immune cells in the area around the damage
- Increased effectiveness of danger neural pathways

- Activation of action potentials with little or no stimulus
- Results in more danger messages
- A person can experience neuropathic pain even when not moving the affected body part.



- Abnormal activity in axons that are not directly involved in the nervous system damage or disease
- Develop symptoms like pain and tingling in an area of the body that is near but not part of the damaged nervous system.



Photo credit: www.arthritisresearch.us/

- Activation of immune cells in the area around the damage
- Causes more danger messages are sent to the brain



- Increased effectiveness of danger neural pathways
- Changes in the peripheral nerves
- Changes in the areas of the brain that are responsible for protection and for receiving messages from the damaged part of the peripheral nervous system





BODY INFORMATION

- When body information is sent to the brain, it is not sent as nociception or danger messages.
- Body information is always being sent to the brain from many different sensors and neural pathways
- The brain then determines if it is a sign of danger or a sign of safety.



BODY INFORMATION

- Muscle spasm
- Muscle tightness / decreased muscle length
- Joint stiffness
- Decreased ROM
- Muscle weakness
- Poor muscular endurance
- Poor cardiovascular endurance
- Difficulty breathing

- Chest heaviness or tightness
- Dizziness
 - Fatigue
 - Restlessness
 - Warm feeling
 - Cold feeling
 - Numbness
 - **Posture abnormalities**
 - Gait abnormalities

- Joint deformities
- Poor Sleep
- General deconditioning
- Problems with regulating arousal level
- Protective outputs

EMOTIONS

Part of the neural pathway that is responsible for pain is also responsible for producing these emotions.

- Depression
- Anxiety
- General fear
- Fear of pain
- Nervousness
- Worrying
- Restlessness
- Stress
- Loneliness
- Social isolation



EMOTIONS

- Research has shown that up to 50% of people with persistent pain also have major depressive disorder.
- Know how to refer a patient to a mental health professional



MEMORIES

Our brain can use memories without us consciously thinking about them or even without us having the ability to recall them.



MEMORIES

- Memories that can commonly contribute to the pain experience:
- Experiencing pain
- Experiencing fear
- Traumatic experiences an event that was unexpected and that caused the person to feel overwhelmed and in danger



MEMORIES

Neural pathways of the memories of traumatic experiences can often be very strong and effective and in this way, they can be strong contributors to the pain experience.







THOUGHTS AND BELIEFS

- Unhelpful thoughts and beliefs contribute to the pain experience because the brain determines that they are signs of danger.
- Unhelpful thoughts contribute to pain by causing:
 - Fear of pain and movement
 - A desire to avoid pain and movement
 - A hopelessness about pain



THOUGHTS AND BELIEFS

My pain is a sign that something is seriously wrong

The crunching sound in my joints is not normal

Movement will make my pain worse Only surgery can fix this My pain is permanent

There is nothing that can do

THOUGHTS AND BELIEFS

Often, healthcare professionals, like physicians and physiotherapists, can contribute to unhelpful thoughts and beliefs.



ENVIRONMENT

- Social isolation
- Poor support by family and friends
- Difficulty accessing medical treatment
- Stress
- Lack of economic security
- Lack of physical safety
- Difficulty doing things to care for their health and wellbeing



ENVIRONMENT

People that live in situations of ongoing stress and insecurity have high rates of persistent pain.







SOCIAL AND CULTURAL CONTEXT

- Their cultural beliefs and practices
- The roles and responsibilities they have in the family, workplace, and community
- The people they spend time with and the thoughts, beliefs and behaviors of these people



SOCIAL AND CULTURAL CONTEXT



SOCIAL AND CULTURAL CONTEXT



BEHAVIOR

- The most common behavior that contributes to pain is the avoidance of pain and the avoidance of movement that a person's brain thinks may cause pain.
- Avoiding pain and avoiding movement that may cause pain can also contribute to nociceptive changes being replaced by nociplastic changes.

CHANGES CAN BE REVERSED



HOMEWORK

- Practice explaining the neurobiology of pain
- Complete ICF models and pain charts for patients that you are working with



AFTER COMPLETING PART THREE, YOU SHOULD BE ABLE TO:

Do a biopsychosocial assessment of pain

Goals of assessment:

- Identify the physiotherapy problems, including the factors contributing to their pain
- Establish goals for treatment
- Establish a treatment plan specific to the patient's problems and goals
- Develop a therapeutic relationship with the patient
IDENTIFY THE PHYSIOTHERAPY PROBLEMS





ESTABLISH GOALS FOR TREATMENT

Establishing goals for treatment is essential as it allows you to objectively assess whether the person is improving in ways that are meaningful.

Focus on function!



ESTABLISH A TREATMENT PLAN SPECIFIC TO THE PATIENT'S PROBLEMS AND GOALS

To design an effective treatment plan, you must first understand the problems the patient has and their goals for treatment.



THERAPEUTIC RELATIONSHIP

A therapeutic relationship is the relationship between the patient and the healthcare professional which serves to support the patient's health and treatment outcomes.

What do you do to think is important in creating trust and a positive interaction between you and your patients?



THERAPEUTIC RELATIONSHIP

Open conversation

Stress

Body language



OPEN CONVERSATION



- Speaking about equal amounts
- Asking each other questions
- Both persons having opportunities to share their experiences and thoughts

A conversation between two experts – the patient and the healthcare professional

STRESS



- Inform the patient of the structure of the treatment session
- Provide many opportunities for learning and to practice new exercises or techniques
- Set a realistic home activity plan

STRESS



- Decreases concentration
- Difficulty learning new information
- Difficulty thinking and organizing information
- Difficulty regulating emotions staying calm and in control

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BODY LANGUAGE

Be aware of what your own body language is communicating

> Notice what the patient's body language is communicating

- Your body language
 - Open Posture
 - Verbalize your frustration
- The patient's body language
 - Respond to what their body is telling you



THERAPEUTIC SPACE

The therapeutic space is the physical environment where the assessment or treatment is held.

Environment contributes to pain.

A healing environment can have a direct effect on the treatment outcomes.



THERAPEUTIC SPACE



- Privacy
- Family Members
- Seating
- Organized space
- Clean space with fresh air

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- Soft lights
- Noise

ASSESSMENT FORM

Take time to study and learn how to use it

6 9



Before seeing the patient, fill out this information

ھەڭسەنگاندنى بايۆسايكۆسۆشياڭيانەى ئازار

ئاوى ئەخۇش ت	. تەمەنى نەخۇش
بەروارى پركردنەودى ھەڭسەناندنەكە	
زانيارى دەربارەي نەخۇشەكە	

Informed consent - the process of providing information to a patient about a healthcare intervention (any assessment, treatment, or test) and then asking the patient for permission to do this.

- Purpose of the intervention (assessment or treatment)
- What the intervention will involve

🗆 نەخىر

- Benefits of the intervention
- Risks of in the intervention

۱. ودرگرتنی ردزامهنی

ئەمرِفِ ھەئسەنگاندنیّك ئە نجام دەدەین، نزیكەى ٣٠ – ٤٥ خولەك دەخایەنیّت ، لە ھەئسەناندنەكەدا پیّویستمان بەتۆیە كە پیّمان بلیّت دەربارەى كیّشە تەندروستیەكانت. وەك ئازار، گرانى خەو، ھەروەھا گرانى لە جیّبەجیّكردنى كار و بارى رۆژانەى ژیان. ئەم زانیارييانە بەكار دەھیّنین بۇ دەستنیشانكردنى جۆرى ئازارەكە و ئەو ھۆكارانەى كەبۇتەھۆى دروستبوونى ئازارەكە . ئەو زانیارییانەى كە پیّم دەدەیت ھەمووى لەناو ئەم قۆرمەدا دەینوسمەوە، بەلام تاییەت مەندى دە چارى ئازارەكە و ئەو ھۆكارانەى نەدەم، پائپشت بە ئە نجامى ئەم ھەئسەنگاندنە باشترین چارەسەرت بۆ پەسەند دەكەم، لە كۆتايى ھەئسەناندىنە كەندى دە پاریّزم كە پیشانى كەسى ترى نەدەم، پائپشت بە ئە نجامى ئەم ھەئسەنگاندنە باشترین چارەسەرت بۆ پەسەند دەكەم، لە كۆتايى ھەئسەناندىنەكە پیّكەرە پلانىكى چارەسەرى دادەنيّين ئايا ھيچ پرسياريّكت ھەيە؟

ئامادەيت ئيستا ھەلسەنگاندنەكە بكەيت؟

🗆 بەڭى

What symptoms and problems are you having?"

- Ask it in a way where the patient feels encouraged to share the details of their experience
- Give the patient the time to share their experiences
- Don't interrupt the patient to ask about specific details
- Show the patient that you are listening and that you are interested

۲. ئەو كێشەو نيشانەى ئارەحەتيانە چيە كە ھەتە؟

Ask the patient to show on their body exactly where they are feeling pain and any other symptoms.



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It is your responsibility to refer the patient to other professionals that can help in these areas.

، هیچ فاکته ریکی ژینگهیی یان کومه لایه تی هه یه په یوهندیدار به نازاره که یه وه؟	٣. ئايا ئەخۇش
 کیِّشهی دارایی.	
 شويّنی ژيانی نائارام.	
 بارودۇخى خيّزانى گران.	
 کیْشەی یاسایی.	
 هی تر	

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Endurance is defined as the ability of the cardiovascular and respiratory systems to maintain physical activity.

Decreased endurance contributes to a decreased tolerance to activity, which means that the patient has a difficult time completing activities in their daily life.

٤. ئەم بابەتانەى خوارەوە ئەزموون دەكەيت ئە ئە نجامدانى چالاكيەكانى رۆژانە وەك (چيشتلينان، ياكژكردنەوە، بازاركردن، رۆيشتن، يان كاركردن؟

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زور به ئاسانی هیلاک دجیت .
 هه ست به پیویستی پشویه کی کورت ده کهیت .
 کورتی هه ناسه دان (هه ناسه بر کیّ) که هه ست به ناره حه تی ده کهیت .
 ما سول که کان هه ست به هیلا کی و لاوازی ده که ن.

هیچ یهکیّك لهمانهی خواردودت ههیه؟

- 🗌 👘 ناتوانیت قورسایی بخهیته سهر قوْلْ یان قاچت، 🔉 وودانی کهوتن یان زهبر ئامیّزی تری بهم نزیکانه ،ئارمق کردنه وه ، سوورپوون ، (نیشانهکانی شکاوی راستهوخوْ بنیّره بوْ لای پزیشک)
- 🗌 لەرزىن و تا ،دابەزىنى كىڭ بەبى ھۆ، مىڭروى كانسەر (شىر پە نجە) حالەتى نەخۇشى يان توشبوون بەم دواييانە (نىشانەكانى حالەتىكى پزىشكى وەك شىر پە نجە بىنىرە بۆ پزىشك بەمەبەستى ھەلسەنگاندن پىش دەستپىكردن بە چارەسەر)
 - 🗌 سرپوون له سهردودی ران ، گرانی میزکردن، سکچوون یان گرفت له راگرتنی دهست به ئاوگه یاندن (نیشانه کانی کاودا ئکواینا) ئه م حاله تی کتو پر ه پزیشکییه به خیّرای بینیّره بوّ لای پزیشك.

Signs of a fracture

- In the leg: being unable to put any weight on the leg.
- In the arm: being unable to put any weight on the arm.
- Pain in a very localized area.

If there are signs of a fracture, then refer to a doctor immediately for treatment.

CANCER AND INFECTION

If a person has had cancer in the past, they are at a higher risk of having cancer again.

Signs of infection and/or cancer:

- Fever: body temperature of greater than 37 degrees.
- Unexplained weight loss

If the patient has a history of cancer and unexplained weight loss, then the risk of cancer is high.



Picture credit: Shrine 365

CAUDA EQUINA **SYNDROME**

- Serious neurological condition where the lowest part of the spinal cord is compressed
- Problems with controlling urination and pooping
- Numbness around the groin and genitals
- Low back pain н.

If a patient demonstrates these signs, have them go to the emergency room immediately.



Saddle Anaesthesia Loss of feelings around the buttocks, anus and genitals?

Falli
Severe nerve pain in back and/or down one or both legs?

Incontinence

Bladder incontinence or inability/ difficulty urinating and/or bowel incontinence/constipation

Numbness

Lack of sensation and/or weakness in the legs



Emergency

Any of the above symptom could be a sign of Cauda Equina Syndrome – please contact your GP or A & E department immediately – without urgent treatment the damage can become permanent.

Picture credit: Spondylolisthesis Awareness

. ئايا هيچ يەكَيْك ئەم بارە تەندروستيانەي خواردوەت ھەيە يان پِيْشَتر ھەتبووە

ا سەودقان.... تىنگەنمەنىسى نەخۇش ھەوكرىنى جوىگە (بۇماتيزم)...... پەستاتى دار (ز دفط)...... فشەليو ونى نۆسكى.... ھەربرىغنارىيەك يان حافةتيكى تر....

يەركەم.....

24

يتق	
كۆنىشانەكانى ھەستيارى ريغۇلە(كۆلۈن).	
نه خۆش شەكرە.	
ھەوكردنى ميزىڭدان.	
هه ستيارييه کان (الحساسيه)	
جەنتە	
نه خوَشَى كه مغويَنى.	
شيّر په نجه	
ھەر نەشتەرگەرىيەك.	

Understand what conditions may be contributing to pain and other symptoms

- Diabetes
- CVA
- Cancer and cancer treatment
- Rheumatoid arthritis
- Irritable bowel syndrome
- Surgeries, injuries, and other conditions



DESIGN THE TREATMENT PLAN TO MEET THE NEEDS OF THE PATIENT



- Heart conditions: Safe to exercise up to a medium intensity
- Hypertension: Refer to physician if not controlled
- Diabetes: Monitor blood glucose
- **CVA:** Modify treatments as needed
- Seizures: Safe to do physical activity and exercise
- **Cancer:** Physical activity and exercise is safe and beneficial. Avoid massage, ultrasound, electrical stimulation, and laser
- Asthma: Physical activity and exercise is safe and beneficial
- Osteoporosis: Strengthening exercises, physical activity, and exercise are safe and beneficial. Do not jump.
- Hernia: Physical activity and exercise is safe. Make sure they continue to breathe.
- Allergies: Avoid items if needed
- Anemia: Physical activity and exercise is safe and beneficial ²⁶

MEDICAL HISTORY

Collect enough information so that you can:

I)Understand if the condition is contributing to pain or other symptoms

2)Identify if the patient would benefit from seeing another healthcare professional regarding this condition,

3)Design the treatment plan to meet the needs of the patient.

It is important to recognize that patients sometimes diagnose themselves with a condition without seeing a physician and receiving a formal diagnosis. Nociceptive Pain is pain associated with damage to the tissues.

 هەنسەنگاندن بۆ ئازارى نوسيپيڭ و گۆرانكارىيەكان. 		
ئايا ئازارت هەبووە بۆ ماوەى كەمتر ئە شەش مانگ؟	🗆 بەڭى	🗆 نەخىر
ئایا ئازار و نیشانهکان، ورده ورده زیادیان کردووه؟	🗆 بەڭى	🗆 نەخىر

- Research has shown that <u>all tissues and types of tissue injuries heal within 6 months.</u>
- With nociplastic pain and changes, the pain and other symptoms, like swelling or difficulty moving the body part, will gradually get better over time.
- With neuropathic pain and nociplastic pain, the pain and symptoms will remain the same or will get worse over time.

Neuropathic Pain is pain associated with damage or disease to the central or peripheral nervous system.

۸. هه نسه نگاندن دهرباره دازاری (نیرو پاسیك) گورانكارییه كان.

ه له رابردوودا ؟	يان هەت بووە	خواردودت هديد	ﻪم گرفتانەي	ئایا هیچ کات ا
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برینداری یان پیّکانی ددمار		نەخۆشى شەكرە	
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🗆 شَيْر په نجه 🛛 🔹 نه خوْشی برین ليْهاتن و تلوْقبوونی پيْست (به كوردی زَوْنای پيْدەوتريْت)

To assess for neuropathic pain, you need to determine if the patient has any damage or disease to the central or peripheral nervous system.

Diabetic Peripheral Neuropathy

- Damage to the nerves
- Standard pattern
- Additional symptoms: urination, constipation, poor vision, dizziness, increased heart rate, difficulty swallowing, and difficulty maintaining appropriate blood pressure and body temperature
- Use the patient's body chart to determine if the patient's symptoms are the same as the pattern of symptoms for diabetic neuropathy





CANCER AND CANCER TREATMENT

- Cancer cells can contribute to neuropathic pain if the cancer cells are invading the nervous system.
- Chemotherapy induced peripheral neuropathy = CIPN
- CIPN has a standard pattern: symptoms are in both hands and up to the middle of the lower arm and in both feet and up to the knees.
- CIPN Symptoms: pain, tingling, numbness, burning, weakness, cramps, and decreased sensation.
- If the patient had chemotherapy, then look at the body chart to determine if the pattern of the patient's symptoms are the same as the pattern for CIPN.



Photo credit: NCCN Task Force Report: Management of Neuropathy in Cancer



- The pattern of symptoms with a peripheral nerve injury will be based on the specific nerve that is damaged.
 - See dermatomes
 - Pain, numbness, tingling, burning, muscle weakness, poor coordination
- Nerves in the central nervous system (spinal cord and brain) can be damaged and can contribute to neuropathic pain throughout the body.
- If there is an injury to a nerve, then use the patient's body chart to determine if the injury to the nerve would be a logical cause for the pattern of symptoms that the patient has.

Photo credit: Keegan, J. J., and Garrett, F. D.

SHINGLES AND NEUROPATHIC PAIN

- Painful rash
- Can cause long-term damage to the nerves
- If the patient had shingles in the past, ask where the patient had the rash from shingles. If the rash was in the same area that the current pain and symptoms are, then neuropathic pain and changes caused by shingles are likely.





Photo credit: Healthlink BC

ASSESSING FOR NOCIPLASTIC CHANGES

	□ نەخىّر □ نەخىّر	ئۆسىپلاستىك و گۆرانكارىيەكانى ئە زياتر بېت ئە شەش مانگ؟ بەئىٰ ت ئە كەشى گەرم و سارد؟ ـ ـ ـ بەئىٰ		۹. ھەئسەنگاند ئايا ھيچ ئازارۇ ئايا ئازارەكەخ
گرانی له ته رکیزکردن یان بیرهیْناندودی شتهکان			فتانهی خوار دودی هه یه ؟ سهرنیْشه	ئايا ھيچ لەم گرا 🗆
لەش ھەست بە رەقبوون يان ئازار دەكات.			گرانی له نوستدندا	
ئازار به زوّر شويّنى لەشدا بلأو دىبيّتەوە.			زۆر به ئاسانى ھەست بە لاوازى (ھىلاكى) دەكەيت	

Research has shown that all tissues and types of tissue injury heal within 6 months.

Allodynia is when a person experiences pain with things that are normally not painful.

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- Nociplastic pain does not have a standard pattern like nociceptive pain and neuropathic pain.
- Nervous system's increased sensitivity affects neural pathways for sleep, moods and emotions, and cognitive ability.



- Many changes seen on imaging are normal changes and not a primary cause of pain
- Just as we have wrinkles on our skin when we age, we also have normal changes in the tissues inside our body as we age.
- Treating this one biological change will not result in removing the pain.




NORMAL CHANGES

Shoulder:

- Rotator cuff partial tears
- AC joint degeneration
- Arthritis
- Fluid in the AC joint
- Cysts in the bones
- Cysts in the joints
- Changes in the tendons
- Tendonitis
- Labral tears
- Bursitis

Elbow:

 Enthesopathy of the extensor carpi radialis brevis (ECRB) (also know as tennis elbow or inflammation of the extensor tendons)

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- Changes in other tendons of the elbow
- Degeneration of bone, cartilage, and tendons

NORMAL CHANGES

Hip:

- Labral tears
- Osteoarthritis
- Degeneration of cartilage
- Tears in ligementum teres
- Cysts
- Bone edema,
- Various changes in the femur bone

Knee:

- Arthritis
- Osteophytes
- Cartilage damage
- Bone marrow lesions
- Subchondral cysts
- Meniscal tears
- Degeneration of meniscus
- Synovitis
- Tears in ligaments

Ankle:

- Bone marrow edema
- Lesions in the ligaments
- Arthritis

زوربه ی جار فشاری ددرونی و باردههستیه کان کار ده کهنه سهر نازار تهندروستی جهسته یی. نیستا من نه و باره ریه وه چه ند پرسیاریکت نی ده کهم.

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۱۱. ئامرازى پشكنينى خەمۇكى.
```

له دوو هدفتهی را بردوهوه چهند جار هدستت کردوه کیْشدت هدیه له گهلْ بایهخ دان به شته کان یان حدزیّکی کهمت هدبوه بوّ کردنی شته کان؟

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 هەرگىز ئا (٠)
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و چەند رۆژىك ( ۱ )
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 زیاتر له نیوهی رۆژهکان (۲)
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نزيكەى ھەمبوو رۆژيك (٣)

له دوو هەفتەى رابردومود چەند جار ھەستت كردوه كيْشەت ھەيە لەگەل ھەست كردن بە بيتاھەتى ، خەمۇكى يان بى ھيوايى؟

هەرگىز ئا (.)

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 چەند رۆژنك (۱)
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زیاتر له نیوهی رۆژهکان (۲)

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 نزیکهی هه موو رۆژنیک (۳)
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	نەخيْر 🗆	بەئىٰ 🗆	له (۳) يەيان زياتر؟	كۆى گشتى خالەكان:
، بدهیت که سهردانی شارهزایه کی بواری دهرونی بکات	، يارمەتى كەسەكا	سەر ھەيە، پيويستە	پيْدەچيْت كەسەكە خەمۆكى ھەبيْت پيْويستى بە چارە	ئەگەر وەلأمەكە بەئى بوو
				لەنزىكترىن كاتدا.

- Clinical depression: when symptoms of depression interferes with their ability to function in daily life.
- Depression and persistent pain often occur at the same time.

Reasons why persistent pain and depression often occur at the same time:

- Decreased ability to perform activities in daily life
- Decreased ability to do what is expected of them at home, work, and in the community
- Poor sleep
- Worrying about the future
- Decreased physical activity
- Decreased social interactions
- Difficulty believing in a positive future and that the condition/s can or will change
- Lack of confidence in their ability
- Fatigue

SCREENING TOOL FOR DEPRESSION

- Use the screening tool to identify symptoms of depression
- Standard tool it must be done just as it is written
- Total score is 2 or lower: the person is unlikely to have depression and you don't need to do anything.
- Total score is 3 or above: the patient may have depression. Refer the patient to a mental health professional that has experience working with people with depression and pain.

- Decreased motivation and energy
- Set realistic goals Set small goals
- Increase physical activity in daily life
- May need to progress more slowly
- Decreased memory and concentration

If you think that the patient is showing increasing signs of depression, then you can do the depression screening tool again and/or refer the patient to a mental health professional



نڭ راوكى:	ینی خەمۆکی و د	۱۲. پشکن
بەند جار ھەستت كردوه كيْشەت ھەيە ئەگەلْ ھەستكردن بە گرژى ، دئەزاوكى ، ئەسەر ييْن	تهی را بردوهوه چ	له دوو ههفا
	هەرگىز ئا (.)	0
()	چەند رۆژىك (0
ى بۆرەككان (۲)	زياتر له نيوهز	0
دِ بِوَدْيَكِ (٣)	نزيكهى ههموو	0
چەند جار ھەستت كردوە كىشەت ھەيە ئەگەل ئەودى كە ئاتوانىت كۈنترۈنى ئىگەرانيەكانت بكەيت يان بيان وەستىنىت؟	فتهى رابردوموه	له دوو هه
	هەرگىز ئا ()	0
()	چەند رۆژىك (0
ى بۇۋرىكان (۲)	زياتر له نيوه	0
ر بۆژىك (٣)	نزيكەي ھەموو	0
ئە (٣) يەيان زياتر ؟ بەئئ 🗆 ئەخىر 🗆	نى خاڭەكان:	كۆى گشت
رو پیددچیّت که سه که دله راوکیّن هه بیّت و پیفریستی به چارمسه ر هه یه . پیفریسته یارمه تی که سه که بددیت که سه ردانی شارهزایه کی بواری دمروونی بکات	دلأمدكه بدلّىّ بو رين كاتدا.	ئەگەر وە ئەنزىكە

Clinical anxiety: the person lives with a constant feeling of nervousness, alertness and worry and it interferes with their ability to function in daily life.

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- General anxiety: constant feeling of nervousness and worry
- Panic attack: Sudden increase in anxiety with intense feelings
- Anxiety and persistent pain often occur at the same time

- Fear avoidance strategy is active in anxiety and persistent pain
- This screening tool is a standard tool so it must be done just as it is written
- Total score is 2 or lower: the person is unlikely to have anxiety and you don't need to do anything.
- Total score is 3 or above: the patient may have general anxiety and you should refer the patient to a mental health professional that has experience working with people with anxiety and pain.
- Anxiety does not make it inappropriate or unsafe to provide treatment and it also does not make the treatment in effective.

WAYS TO RESPOND IF A PERSON HAS SIGNS OF ANXIETY:

- Say out loud what you see Belly breathing
- Change the position of the patient
- Do the activity at a different time – but do not avoid
- Walk or other gentle painfree movement
- Keep yourself calm
- Discuss with the patient what could help



۱۳. پشکنینی فشاری دوای زدبری ددرونی :

🗆 ئەخير

Traumatic events: events that
unexpected and that are difficult to
cope with.

- Post Traumatic Stress Disorder (PTSD):
 - Mental health condition
 - The traumatic event is so severe or so painful that it causes the nervous system to become extra sensitive and to have difficulties processing information accurately
 - Curable

زۇرجار خەلكى توشى ھەندىك بارى ترس و فشارى دەرونى دەبنەود لە ئاوياندا : روداودكانى شەر ، نەشكە نجە ، توندوتيژى , مردنى ئەندامانى خيزان , دەست دريژى يان روداوى هاتوچۇ . دىكرىت ئەم حالەتانە كارىگەريان ھەبىت ئەسەر تەنئىروستى جەستەيى و ئازار. پيغريست ناكات باسى وردىكارى زوداودكا ئمان بۇيكەيت بەلام نايا زويناود زوداويكى زىبرى ئەم شيوديه ت به سه رها تبيّت . بەڭن 🗆 نەخىر 🗆 ئەگەر وەلامى نەخۇشەكە بە بەلى بوو ئەوا ئەم پرسيارا ئەى لىٰبكە : اعمانگی زبردارونا هی دیونردمینک بان هیچ خدویکی ناخوّنک هدوره تجاری رونا ویکانه رد پان پیرهانتمودینک همپرود ته باردیانمود بدین ویستی خوّت ؟ به لان ______ نام نیر ______ لمانگی پاپر دوودا هاولی زورت داود که بج له وروداوانه نهکایتهود یان همولنداوه که خوّت به دور بگریت له ویار و شتانه ی که روداوه ناخوشه کانت بج پیّلیته وه ؟ 🗆 بەڭئ 🗆 ئەخىر لەمانگى رابىردودا روى داود كە لەببارى سەرپىزى و يان بەئاسانى لەبارى ھەڭچووندا بېت ؟ 🗆 بەڭئ 🗆 ئەخپىر لممانگی رابردوودا همستت کردووه که کموتیپته باری سربوون و دابر ان لمخمانگی و چالاکی و یان لمددوروبمرهکت بوبیت ؟ 🗆 بەڭئ تەخىر 🗆 لدمانگى رابردوردا هدستنا كردوره كدناتوانينا كه بوستينا له تاوان باركردنى خوَّة و خدتكانى تر بوَّ روداوهكه و هه ركيْشديدكى روداوطه كه هوّكاربيويّتا؛

﴿ كَوَى تَعَادَهِ بِعَلَى بِعَلَى بَعَكَى : ئەگەر بەڭ بور ئەرا كەسكە تقارى دارە ئەبرى دىرونى ھايە و پۇرستى بەچارسارە دەر پۇرىسكارەتى كەسكەبدىق كە رايۇر بە ئارەز يىكى دىرونى بكان ئەنزىكترىن كانتا ھەربەكى ئەنىشە روداى زەبراى بەسەردا ھايەر دە زۇرىتىدا كە چارمپار ئەكدار بورە ۋېرى بورە كە ئىگەنيا ھەلىكان

🗆 بەڭئ

SIGNS OF PTSD

Changes in energy levels - extreme nervousness, getting angry easily, lack of motivation to do anything, and/or difficulty feeling joy

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- Flashbacks
- Dissociation
- Symptoms of depression and/or anxiety
- Poor sleep
- Poor concentration and memory
- Increased sensitivity to pain
- Difficulty feeling small changes in physical sensations like pain and muscle tension
- Difficulty noticing small changes in emotions and behavior

- PTSD and persistent pain occur at the same time
- This screening tool is a standard tool so it must be done just as it is written.
- Two or less "yes" answers: the person is unlikely to have PTSD and you don't need to do anything.
- Three of more "yes" answers: the patient may have PTSD and you should refer the patient to a mental health professional that has experience working with people with PTSD.
- PTSD does not make it inappropriate or unsafe to provide treatment and it also does not make the treatment in effective.

What to do if the person has a **PTSD** reaction or increased anxiety:

- Belly Breathing
- Change position
- Walk around the room
- Drink water
- Keep yourself calm with belly breathing
- Change the activity but don't avoid forever
- Gentle and pain-free movement
- Discuss what can be done to help

What to do if the person dissociates:

- Talk slowly but clearly to the patient. Continue to talk.
- Tell the patient where they are and who you are.
- Use their name often.
- Continue to tell the patient that they are safe.
- Do not touch the patient as this may scare them and increase the reaction.

If the person has increased signs of PTSD and the person is unable to return to a stable state, then get support immediately.

The person should not return home while having significant symptoms.

PTSD

It can be harmful to have the patient share their traumatic experiences with you

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- Severe anxiety reaction
- Prolonged depression
- Increased suicide risk
- If the patient wants to share the details:
 - We should concentrate on pain and function
 - Sharing this with the right professional is important
 - Refer to a mental health professional



BRING BOTH ARMS BEHIND BACK



- Pain
- ROM use landmarks on the body
- Weakness
- Fear, anxiety, and protective responses
- Balance
- Quality of movement

STAND ON RIGHT LEG FOR 5 SECONDS; STAND ON LEFT LEG FOR 5 SECONDS

- Pain
- Weakness
- Fear, anxiety, and protective responses
- Balance
- Quality of movement



Photo credit: alignforhealth.com

۱۰ ژیشانهکانی گورانگاری نوسیپلاستیکی(ئەلۇدىنيا و ھايپەرئە لجيزيا)

- 🛽 نەخۈشەكە ئازارى دەبيّت يان ئازارەكەى زياد دەكات كاتيّك بە سوكى دەست ئەشويّنى ئازارەكەى دەدەيت.
 - 🛽 نەخۈشەكە ھەست بەئازارىكى بەرچاو دەكات كاتىڭ ئەو شوينەى ئازارى ھەيە بە ھيْواشى بيجوڭنىت.
 - ا نەخۇشەكە دەترسىت ئەوەى كە شوينى ئازارەكەى بجوڭىنىت.
- Use the body chart to select the area with the most pain
- Lightly touch this area with a tissue or your finger
- Sign of allodynia: pain starts or pain increases

۱۰ ژیشانهکانی گورانکاری نوسیپلاستیکی(ئەنودینیا و هایپەرئە نجیزیا)

- 🗌 نەخۇشەكە ئازارى دەبيّت يان ئازارەكەى زياد دەكات كاتيّك بە سوكى دەست ئەشويّنى ئازارەكەى دەدەيت.
 - 🛽 نە خۇشەكە ھەست بەئازارىكى بەرچاو دەكات كاتىڭ ئەو شوينەى ئازارى ھەيە بە ھيواشى بىجوڭنىت.
 - نەخۇشەكە دەترسىت ئەوەى كە شوينى ئازارەكەى بجوڭىنىت.
- Have the patient actively move the area of pain
- If you already observed this, then do not need to repeat
- It is your judgment to whether the patient has significant pain during the movement⁶

PATIENT IS AFRAID TO MOVE THE AREA WITH PAIN:



- Refuse to do the movement
- Move slowly
- Only move through part of the movement
- Say they are nervous or that they are afraid that the movement will cause pain or damage
- Increased speed of breathing
- Holding of the breath
- Increased muscle tension in body
- Making fists with the hand
- Facial expressions and grimacing of the face

١٦. پشکنینی مەودای جونَّهی چالاك و ناچالاك وەك ئەودی پیۆیستە :

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Measure any significant ROM limitations



۱۷. پشکنینی جونهی (دانیشتن بو وهستان به پیوه):

کورسیدك بدكار بهیّند كه بدرزیدكدى ۱۰ سم بیّت پشتمكى ریّك و شویّندى دانیشتندكمك ربق بیّت. داوا له ندخوّشدكه بكه كه هدردوقوّنى بعتَيك نالاوى لدسدر سنّكى داینابیّت و نینجا لدسدر كورسیدكه دابنیشیّت. ندم ریّنماییانه به ندخوْشدكه بلّى: پیّنج جار هدستیّت و دابنیشیّت و چەند لدتوانایدا هدیه بهخیّراى نه نجامى بدات. وه ددستت با هدر لدسدر سنگت بیّت.

له ژماردن بودسته کایْك نه خوْشهکه پیْنجەم دانه تەواو دەكات.

يەكێك ئەمانە ديارى بكە :

کات:_

-] توانای ئاسایی بۆ ئەنجامدانی چالاکی(کەمتر له ۸ چرکه)
- کهمبونهودی توانای چالاکی بهلأم مهترسی کهوتنی نیه(۸–۱۲ چرکه)

کهمبوندودی توانای چالاکی همرودها مدترسی کهوتنی همیه(۱۲ چرکه یان زیاتر یان ناتوانیّت به سهلامهتی جو<u>نم</u>که نه نجام بدات به بیّ یارمهتی دست گرتن یان یارمهتی تری جهستمیں)

- Use a solid seat that is 40cm high.
- If the patient has less than normal functional ability, the treatment plan should include treatments to improve balance and functional ability.

۱۸ تێبينى و پشكنينەكانى تر:

Write any additional observations or the results of any additional testing in this space on the assessment form.

OUTCOME MEASURES

- Outcome measures are only accurate if you complete them exactly as they are instructed
- Outcome measures are used for the following reasons:
 - Provide information to help determine the type of pain and changes
 - Provide information to help design the most effective treatment plan
 - Provide evidence of improvements by repeating the same outcome measures throughout the treatment sessions and comparing scores



 Measures the patient's ability to manage their pain and participate fully in life despite having pain

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- Show the patient the visual scale
- Add the two scores to get the total score

۲۰ . لهماوهی مانگی رابردودا ، به شیّوه یه کی گشتی خهوی خوّت چوّن هه نّده سه نگیّنیت؟

- زۆر باش
 باش
 خراپ
 زۆرخراپ
- Poor sleep is one factor that contributes to the pain experience
- Read the question and the four options to the patient exactly as they are written
- The patient must select one option. You cannot select the option based on what the patient shares

PHYSICAL ACTIVITY

- Low amounts of physical activity contribute to the pain experience.
- People that do more regular physical activity have lower rates of persistent pain.
- People with persistent pain have lower levels of physical activity.
- Physical activity and exercise are effective clinical treatments to decrease pain and improve function.
- Physical activity decreases the sensitivity of the nervous system which has an effect on decreasing pain.
- Low levels of physical activity result in conditions that can contribute to pain like muscle weakness, poor cardiovascular endurance, poor muscular endurance, joint stiffness, and muscle tightness.
- To achieve all of the health benefits of physical activity, <u>adults should participate in at least 150 minutes</u> of medium-intensity physical activity per week

- Read the question to the patient exactly as it is written.
- The question describes the detail about "working up a sweat" because this indicates that they are participating in medium intensity of physical activity and not low intensity physical activity.

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- Focus on improving function rather than pain
- Ask the patient to identify 3 functional activities that are difficult for them.
- Show the patient the visual scale
- Have the patient provide a score for each activity

ئەم زانياريانە ى خوارەوە تەواو بكە بۆئەوەى ديارى بكەيت كە نەخۆشەكە چى جۆرێك ئازارو گۆرانكارى ھەيە دواتر ھەٽسەنگاندنى ورد بكە بۆ ئەو جۆرە ئازارەى كە نەخۆشەكە ھەيەتى، دەگو نجێت نەخۆشەكە ئەيەك جۆر ئازار زياترى ھەبێت.

Determine the type or types of pain Do the outcome measure specific to the type of pain

Develop a treatment plan

نەكانى ئازارو گۆرانكارى نۆسيسيّپتقى – پشكنين بۆ ئەوانە بكە كە بەسەر نەخۆشەكەدا جيّبە جيّدەبيّت.	نيشاه				
ئازارەكەو نيشانەكانى ئەشويْنىكى ديارىكراوى ئەشدان					
جۆرى ئازارەكم پەيوەندى ھەيە بە بريندارى يان پيكانى شانە يان بەشيّىكى لەش					
نەخۆشەكە ئازارى ھەبووە بۆ كەمتر ئە ماوەى شەش مانگ					
ئايا نەخۆشەكە گۆرانكارى و ئازارى نۆسيسيّپتقى ھەيە ؟ (نەخۆشەكە پيۆستە ھەرسىّ خاڭەكەى سەرەوەى ھەبيّت)					
🗆 بەڭى 🛛 🗆 نەخير					

- The pain and symptoms are localized –Body chart
- The pain pattern is related to a specific tissue injury or damage Body chart, the information the patient told you, and your knowledge of anatomy
- The patient has experienced pain for less than 6 months Section 7

For the patient to have nociceptive pain and changes, all three items must be true.



- ئازاردكەو نیشانەكانى بە پانتايى ناوچەى دەمارەكە دریژ بۆتەوە.
- 🛽 نەخۇشەكە نەخۇشى يان برينداريەكى ھەيەئە كۆئەندامى دەماريدا و ئازارەكەشى پەيوەندى ھەيە بەوەوە.
 - 🗌 ئازاردكەو نىشانەكانى ئەشيوەى ، سوتانەودو ئىدان و سرپوون و مىرولەكردندايە .
- دروست پیونی گیرانگاری همستگرندا، ودک کمبرونیموی همست کردن و لاوازبرونی ماسولکه کان، بغدریژایی بلاویونموی دممارهکه.
 همبرونی ند نجامی پوزدشیف ند پشکنیندکانی ودک وینمی تیشکی و پشکنینی تاقیگدیی و که پدیودندیدارد به جوری نازارهکه و ند خوشی و پیکان ند کوندندمی دمماریدا.

خايا ئەغۇشەكە ئازارى نيرۇ پاسيكى و گۇرانكاريەكانى ھەيە؟ (ئەغۇشىك پيديستە دوونىشانەى يەكەمى ھەبىت) بەلى — ____ بەلى _____

See the handout

- The pain and symptoms are along a nerve distribution –Body chart, your knowledge of anatomy
- The patient has a disease or injury of the nervous system and the pain pattern is related to it Section 8
- The pain and symptoms are described as burning, shooting, numbness, and tingling: Body chart
- There are sensory changes like decreased sensation and muscle weakness that are along a nerve distribution assessment if possible
- Positive results on image and medical tests are relevant to the pain experience and an injury or disease of the nervous system: Section 10

نيشانەكانى ئازارو گۆرنكارى نۆسيپلاستىكى - پشكنين بۆ ئەوانەيان بكە كە بەسەر نەخۆشەكەدا جيّبەجيدەبيّت.

- 🗌 ئازارەكە پەيوەندى نيە بە پىكان وبريندارى دەمارىكى تايبەت.
 - 🗌 نەخۆشەكە بۆماوەى زياتر ئە شەش مانگە ئازارى ھەيە
- 🗌 🔹 ئازارەكە سەرتا پاگېرەو سنوردار نيەئە شويْنىكى تاييەتدا . نەخۈشەكە كۆمەڭىك نىشانەى ترى ھەيە وەك . شەكەتى ، سەرئىشە ، وە /يان بەگرانى بېركردنەوە .
 - ا نیشانهی ئالودینیا وه / یان هایپهرئه لجیزیا هه یه.
 - 🗌 👘 پشکنینه کهی پۈزدتیشه بۆ ههریهك له ؛ فشاری دوای زهبری دمروونی ، د له راوکیٰ، وه/ یان خهموْکی یان نیشانه کانی تری کیْشه دمروونیه کان

ئايا ئەخۇشەكە ئازار و گۈرانكارى ئۆسپېلاستىكى ھەيە؟ (ئەخۇشەكە پيويستە خاڭى يەكەمى تېدا بەرجەستەببېت)

🗆 بەڭى 🔅 🗆

- The pain pattern is not related to a specific tissue injury or damage: -Body chart, Section 9
- The patient has experienced pain for more than 6 months Section 9
- The pain and symptoms are widespread and not localized Body chart and section 9
- The patient has other symptoms like fatigue, headaches, or difficulty thinking Section 2 and section 9
- There are signs of allodynia and/or hyperalgesia Section 15
- There is a positive screen for PTSD, anxiety, and/or depression or other signs of emotional⁷⁰ problems sections 11,12, and 13



- Nociceptive pain and changes conduct the assessment for nociceptive pain and changes
- Neuropathic pain and change conduct the assessment for neuropathic pain and changes which includes the Pain Detect Questionnaire
- Nociplastic pain and changes conduct the assessment for nociplastic pain and changes which includes the Central Sensitization Inventory

ھەڭسەنگاندن بۇ ئازارو گۆرانكارى نۇسيسنىتشى

ئەو شويْنە بېشكنە كە ئازاريكى دياريكراوى تيْدايە ، بزانە كە كام لەم نيشانانەى ھەيە لەشويْنى ئازارەكەدا

- 🗆 سورېوونهوه
 - 🗆 ئاوسان
 - 🗆 گەرمبوون

ئەگەر نەخۈشەكە نىشانەكانى سوربوونەوە و گەرمبوون ، ئاوسانى ھەبوو، كەواتە پىدەچىت نەخۈشەكە ئازارو گۆرالكارى نۇسىسپىتقى ھەبىت ، وە ئەو نەخۇشە دەتوانىت سود وىربگرىت ئەو چارەسەرانەى كە بۇ شانەيەكى برىنداربوو دەكرىتار ئاگاداركردنى، جوزگىردنەوى، شاركردن بە بەكارھىنانى سەھۇل ،

ئەگەر نەخۇشەكە نىشانەكانى سوربورنەرە و گەرمبوون ، ئاوسانى نەبوو ، ھىشتا پىدەچىت نەخۇشەكە ئازارو گۆرانكارى ئۇسىسىپتقى ھەبىت ، بەلام ئەو نەخۇشە پىرويست ناكات ئەو چارەسەرانە وەربگرىت كە بۇ شانەيەكى برىنداربوو دەكرىت . سەيرى سەرچاوە (مانوەنى) تايبەت بە چارسەر كردن بكەبەمەبەستى دەسكەوتنى پلانىكى چارەسەركردنى كارىگەر.

- Examine the area
- Remove clothing
- Have good lighting
- Compare the area to the other side
- Use the back of your hand to assess temperature
- You must be sure that the patient does not have neuropathic or nociplastic pain and changes before you can proceed with a treatment plan for nociceptive pain and changes.



For this body chart, the patient should select one main area of pain.
- Describe each picture using the words provided.
- The patient should then select which picture best describes their pain experience.



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-	⊢ ئمر مكانى بر سيارى دوەمم	درسبارى بەكەم -	بهك- نمر مكاني	اذی نمردکانی بهشی

Calculate the total score for section 1 by putting the score from question 1 in the first line and putting the score from question 2 in the second line. Then add these two T5 number up to get the total score for section 1.

پرسیارنامهی پشکنینی نازار - بهشی ۲

ويْنەي رونكراودى تايبەت بەبرەكان پيشانى نەخۆشەكە بدە.

- Make sure that they understand that they are only talking about the area that you selected on the body chart in question 1 of this questionnaire.
- Read each question exactly as it is written.
- Calculate the total score for section 2

ئىستا پرسيارى ھەندىك نىشانە دەكەم كە خەنكى بەگشتى ھەيانە، بۇ ھەر نىشانەيەك، ئىمە تايبەتى دەكەين بەو شويّنى ئازارەى كە ئەويّنەكەى سەرەودا تۇ دياريت كردووە، پىم بلى ھەر نىشانەيەك چەندجار ھەستى پىدەكەيت،ئايا : ھەرگىز، بريكى زۇر كەم، بريكى كەم، بريكى ماماوەند، بريكى زۇر ، بريكى ئىيچگار زۇر،



كۆى ئىردكانى بەشى يەك______+ كۆى ئىردىكانى بەشى دووەم_____=

بەدواداچون بۆ ئەمانە بكە:

- 🗌 نمرەكان ئە سفر بۆ ^دا ئازارو گۆرانكارى نيرۇ پاسيكى دِيْى تَيْنَاچىٰ ئەگەريْكى لاوازە)
- نمردكان له ۱٪ بۆ 浴 ئازارو گۆپانكارى ئيرۇ پاسيكى رېّى تېدەچىّ(ئەگەرىكى بەھيّرَد) وە چارەسەر بۆ ئازارو گۆپانكارى ئيرۇ پاسيكى رېّى تېدەچيّت كارىگەربىّت.

Calculate the final score

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- The CSI is a clinical tool to assess if a patient has nociplastic pain and changes.
- Show the patient the visual scale and explain it to them.
- Read each statement to the patient exactly as it is written.
- The patient must select the score.
- After the patient has provided a score for every question, add up the totals for each column. Never=0, Rarely=1, Sometimes=2, Often=3, Always=4. Then add up the total score.



🗆 نەخىر	🗆 بەڭى	-	تئى چارەسەركردندا؟	لاماد دبيت له دانيڤ	ريکو پيٽڪ ن	بەشێوەيەكى	ئايا دەتوانيت

You want to understand if the patient is able and ready to commit to coming to treatment sessions regularly. You will use this information to create a realistic ⁷⁹ treatment plan.



After you finish the assessment you should discuss the treatment plan with the patient.

After the discussion, ask the patient if they agree to the treatment plan.

_	يلانى چارەسەرى بايۆ سايكۆ سۆشيال	
	ناوی چارەسەركارى سروشتى	بەروارى ھەڭسەنگاندن
	تەمەن	ناوى نەخۆش :

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The treatment plan is important for the following reasons:

- Organizes the information
- Provides a summary of the patient and treatment plan
- Guides you to select the most effective treatment plan
- Identifies goals for the treatment
- Organizes the outcome measures so that you can measure progress

کیشهی پهوطندیدار به چارهسفری سروشتیهوه- به دوای نه وهیاندا بگهری که په پودندی به نمم نه خوشه وه هه یه	7
ئازارو گۈزائكارى نۇسيسيْپتش كە پيْوستى بەريْگەيەكى چارەكردنە بۇ شانەيەكى بەركەوتوو	1
ئازارو گۈړانكارى نۇسيسيْپتشى كە پيْرستى بەريْگەيەكى چارەكرىن نيە بۇ شانە يەكى بەركەوتوو	1
ئازارو گۆپائكارى نچر ۋپسيكى	1
ئازارو گۆپانگارى ئۆسىپلاستىكى	1
كەمپوئەي تواناى لەكار و چالاكى رۇۋا ئەدا	1
تېكچونى خەو	1
کەمبورندوی چالاکن جەستین لە ژیانی رۇژانددا	1
کمبودادی مدودای جونه جونگدکان بدشیودی چالاك و ناچالاك	1
که مېروندودی هیژی ماسوتکه کان	1
که سوونودی توانای به رگهگرتش بمرددوامی نه کانش نه نجامدانی چالاکیهکان	1
لاوازی له هدوسه نگی لدشده	1
مېز	1

ئاما نجه کان— له سهر بنه مای پيروه ره کان							
فونجا ئەوا بە بەتالى	بۆ ئەو نەخۆشە نەگ	یِّك له ئاما نجهكان	دنەكە. ئەگەريەك	كانى ناو فۆرمى ھە ئسەنگان	خشتهکه به وردی پربکهرهوه به بهکارهیّنانی ژانیاریه		
					جيّى بيّله".		
بەدواداچون بكە	چواردم	سيّههم	دوودم	يەكەم ھەڭسەنگاندن	ئامائج		
كاتيْك ئاما نجهكه	ھەڭسەنگاندن	ھەڭسەنگاندن	ھەڭسەنگاندن	بەروار :			

You should write the date of the assessment in the space provided.

بەروار:

بەدىست دۆت

بەروار:

بەروار:

 The column called "Check when the goal is achieved" should be checked with patient has achieved this goal. دانیشتن بۆ ھەستان. ئامانچ= ۸ چركە يان كەمتر

If the patient already has a time of 8 seconds or less, then the patient is at a normal level of functional ability. In this case they do not need to work on this goal and you can check the box for "check when the goal is achieved." پرسیارنامهی خود ئیدارددانی ئازار - تیکرای نمره ئامانچ= زیادکردنی نمرهکان تائمو رادهیهی که دهتوانریّت

The goal is increasing the total score as high as possible. The highest possible score is 12. If the patient already has a score of 12, then you can you can check the box for "check when the goal is achieved."

لەماودى مانگى رابر دوودا ، بەشيّوديەكى گشتى خەوى خۆت چۆن ھەلدەسەنگيّنيت؟ ئامانچ = تارادەيەك باش يان زۆرباش

The goal is to have a rating of fairly good or very good. If the patient already has one of these ratings, then you can you can check the box for the column "check when the goal is achieved."

بەلاى كەمەوە ھەفتەى جارىك، ئايا تۇ چالاكيەكى رىغراو ئە نجام دەدەيت تا ئەو رادەيەى ئارەقت پىيكاتەوە؟ ژمارەى كاتژمىرەكان ئە ھەفتەيەكدا. ئامانچ – بەلاى كەمەوە ٢, ٥ كاتژمىر ئە ھەفتەيەكدا.

The goal is to do at least 2.5 hours per week. If the patient already does at least 2.5 hours of physical activity per week, then you can you can check the box for the column "check when the goal is achieved."

چالاکی ۱ : جۆری چالاکیهکه لیّره دا بنوسه، وه نمرهی ئاستی چالاکیهکهی له خانهی بهردهمی دا بنوسه

چالاکی ۲: جۆری چالاکیهکه لیّره دا بنوسه ، وه نمرهی ئاستی چلاکیهکه ی له خانهی بهردهمی دا بنوسه

چالاکی ۳: جۆری چالاکیهکه لیّره دا بنوسه ، وه نمرهی ئاستی چلاکیهکه ی له خانه ی بهردهمی دا بنوسه

The goal is for the score reported at the initial assessment to improve by at least 3 points during treatment. Research has shown that this is a meaningful improvement.

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پرسیارنامهی نازاری لهدهرو نجیّگیربوو- تیکرای نمرهکان نامانچ = تیکرای نمرهکان ۱۰ یان کهمتربیّت

The goal is for the total score to be 15 or less. If the patient already has a score of 15 or less, then you can you can check the box for the column "check when the goal is achieved."

نەخۈشەكە نىشانەكانى سوربوونەوە ، ئاوسان، گەرمبوونى شوێنى ئازارەكەى ھەيە ئامانچ – چيتر نەخۈشەكە ئەو نىشانانەى نەمێنێت

The goal is for it to be No – the patient does not have these symptoms. If the patient already is no for this goal, then you can you can check the box for the column "check when the goal is achieved."

بارەسەرەكان
ەرە ئجى ئەر چارمىمرائە بىدە كە كە يلانت بۇ دائارە ئەگەئئەخۇشەكەدا ئە نجامى بىدەيت.
یویسته چارمسهریکی وات دانابیّت که ههموو کیْشه پهیودندیدارهکان به چارمسهری سروشتیهوه له خزبگریّت که که بو نه و نه خوشه دیاریت کردووه. وردهکاری چارم
باریکراو بۇ ئەو كیْشە پەيوەندىدارەنە بە چارەسەرى سروشتيەو بنوسە كە مائوەئى چارەسەردا نيە.
🗌 ئازارو گۈړانگارى نۇسيسيّېتقى كە پيۆستى بەريْگەيەكى چارەكردنە بۇ شانەيەكى بەركەوتوو. ئەسەر بنەماى مانوەلى چارەسەركردنەكە.
🗌 ئازارو گۈرائكارى نۇسىسىيىتقى كە پېئوستى بەرپىگەيەكى چارەكردن ئىيە بۇ شائەيەكى بەركەوتوو. ئەسەر بىئەماى مائوىلى چارەسەركردنەكە.
🗌 ئازارو گۇرانگارى ئېرۇ پىيكى. ئەسەر بنەماى مانوەلى چارەسەركردنەكە.
🗌 ئازارو گۆرانگارى ئۆسپېلاستىكى. ئەسەر بىئەماى مانوەلى چارەسەركىردئەكە.
🗌 كەمبوئەي توائىاي ئەكار و چالاكى رۇۋائەدا. ئەسەر بنەماي مائودلى چارەسەركردنەكە .
🗌 تېكچونى خەو. لەسەر بنەماى مانودلى چارەسەركردنەكە.
🗌 كەمبوونەوى چالاكى جەستەيى لە ژيانى رۆژانەدا. لەسەر بىلەماي مانوەلى چارەسەركردنەكە.
🗆 كەمبونە وى مەرداى جولە جومگەكان بەشيوى چالاك و ناچالاك.
🗆 كەمبوونەودى ھۆزى ماسولكەككان
🗆 كەمپودنودى تواناى بە رگەگرتن و بەردەوامى ئەكاتى ئە نجامدانى چالاكيەكان
🗆 لاوازی له هه وسه نگی له شد ا

You should have treatments described for every problem that you selected in the Physiotherapy Problems section of the treatment plan.

PASSIVE TREATMENTS

- Research has shown that the other passive treatments listed above are not effective at treating pain, especially nociplastic pain.
- If you choose to provide a passive treatment, follow these guidelines:
 - Spend the majority of the treatment session providing the active treatments described in the treatment manuals
 - Only provide passive treatments during the first few treatment sessions
 - Educate the patient that the entire treatment is working to provide them with the knowledge and skills to take care of themselves.

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Educate the patient so that they understand that active treatments are an important part of treatment You can use this TNE to explain it.

ئا یا نه خوْشه که سود دهبینیّت اه بینینی شارهزایه کی تری بواری تهندروستی؟ سهر نجهی نهوانه بده که جیّبه جیّدهبن و وردهکارریه کهی بنوسه .
تيْبِينى : ويْنەى تيشكى ئيم ئار ئاى و تيشكى ئيّكس ، پيْويست و يارمەتى دەر نيە كاتيْك نەخۇشەكە ئازارى ھەبيّت جگە ئەم دوو بارە :
۱)نەخۇشەكە ئازارى نيرۆپاسيكى ھەيە كە ھاوتايە ئەگەل نيشانەكانە كانى فشار ئەسەر دەمارەكان ۲) نەخۇشەكە نيشانەكانى باريّكى تەندروستى ئەناكاوى ھەيە
وەك: شكاوى ، شيّر په نجه، كاودا ئيكواينا سيندردم.
□ پزیشك
ڭامرازى يارمەتى دەرو پائشتى كەر(دارشەق ، گۆچان، ھتد.)
شارەزاى بوارى تەندروستى دەروونى
تويَرُّەرى كۆمە لأيەتى
هيتر
ههر کرداریّک که نه نجامی دددهیتبه مه بهستی رموانه کردن
ئەو بەروارەي كە ئەخۆشەكە شارەزايەكى تىرى بىنيوە

It is your responsibility to work with the patient to help them see the recommended healthcare professional.

PHYSICAN REFERAL

- Section 6 any uncontrolled medical conditions that would benefit from support by a physician
- Imaging:
 - Images are not required for low back pain except if there are signs of nerve compression or a serious medical condition.
 - Should only recommend imaging for a potential nerve compression your assessment and total score 15 to 38 on the Pain Detect Questionnaire
 - You should refer for imaging if there are signs of a serious medical condition.

REFERRALS

Equipment

It is your responsibility to make sure that the patient has any equipment that they need to be able to do as much as they can in daily life and to remain safe.

Mental health professional

Sections 11, 12, and 13 of the assessment for the results of the screenings for depression, anxiety and PTSD.

Social worker

financial, legal, social support, housing, education, or anything else that is creating a stressful living situation.



بەبىركردنەودى تۆ ئەو نەخۇشە پۆيستى بەچەند دانىشتنى چارەسەرى دەبىۆت. دوبارەبوونەودى جارەكانى دانىشتن بۆ ئەم نەخۇشە چەندە؟

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- جار مانگانه
- 🗆 دوو هەفتە جارىك
- 🗆 ھەفتانە ۱ جار
- هەھتەي دوو جار
- هەفتەي ۲ جار
- ھيتر____

PRACTICE



