

Essentials of Pain Assessment

- History
- Examination
- Investigations

General tips

- ✓ Think like a detective
- ✓ Active listening
- ✓ Be patient and empathetic
- ✓ Persons-in-pain often want to get a lot off their chest
- ✓ They've often been stigmatised, dismissed or not believed
- ✓ Adopt a **bio-medical-psychosocial-environmental** approach
- ✓ Assess the whole person and their environment
- ✓ Don't rush: You won't get all the information you need in one sitting

Pain history

- ✓ *What happened at the time you developed the pain?*
 - often gives clues as to mechanism and cause of pain
 - inciting event
 - injury, trauma, illness?
 - stress, duress, abuse? (Risk factors for chronic pain)
- ✓ *What was the mechanism of injury?* (e.g. whiplash, sprain, nerve injury)

Pain

- ✓ Timing: acute or chronic
- ✓ Site
 - point with one finger to where the pain is worst?*
- ✓ Radiation (referred pain)
- ✓ Intensity: pain score /10 at rest & movement
- ✓ Qualities (neuropathic or visceral) (burning, shooting, aching, colicky)

- ✓ *What makes your pain worse?*
- ✓ *What makes your pain better?*
- ✓ Family history of pain (pain, arthritis, migraine)
- ✓ Impacts of pain on function, mood, work, quality-of-life
- ✓ Patient's insights and expectations
 - What do you think is causing your pain?*
 - Are you worried about the future?*
 - Are you worried about becoming disabled?*
 - What do you expect from this visit today?*
- ✓ Collateral history
 - What have other doctors said?*
 - What do significant others (e.g. spouse) say?*
- ✓ Treatments
 - past and present
 - effects
 - medications
 - over-the-counter analgesics (esp. in headache)
 - opioids
 - benzodiazepines
 - alternative therapies

Screening

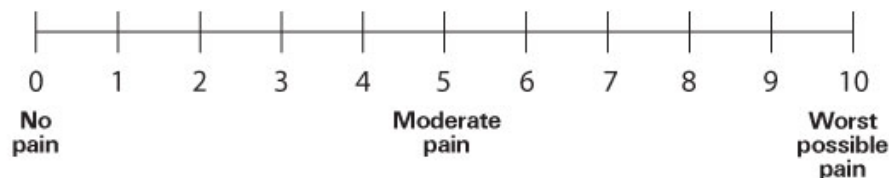
- ✓ **Red flags**
 - T.I.N.T**
 - Tumour, Infection/Inflammation, Neurological, Trauma**
- ✓ Renal, respiratory, sleep apnoea, peptic ulceration, pacemakers, seizures
- ✓ **Yellow flags**
 - Psychosocial factors that predict chronic pain & disability
 - C.H.A.M.P.S**
 - Catastrophizing** (doomsday state-of-mind), **Hypervigilant** ('meerkat'), **Anxiety**, **Medicalised**, **Passive**, **Stress**, **Substance-use** (chemical coping).

Psychosocial history

- Depression, anxiety, sleep
 - Suicidality
 - Duress or abuse
 - Coping skills (passive or active)
 - Substance use: smoking, alcohol, opioids, medications, THC, drugs
 - Social supports
 - Compensation or legal issues
- ✓ General medical history
- allergies

Pain scores

Verbal Numerical Rating Scale (VNRS)



- ✓ Measures pain intensity
- ✓ Unidimensional score (/10) for a multidimensional problem
- ✓ Useful for acute pain
 - Meaningful reduction in pain 3/10
 - Acceptable pain $\leq 3/10$
- ✓ Less useful for chronic pain (most persons score 6-7/10)
- ✓ Children (faces scales)

Categorical Rating Scale (CRS)

None

mild

moderate

severe

Pain questionnaires

BPI: Brief Pain Inventory (short-form)

<http://www.hnehealth.nsw.gov.au/Pain/Documents/BPI.dec06.pdf>

- ✓ A multidimensional pain questionnaire
 - measures pain qualities, impacts, QoL, sleep
- ✓ Pain diagram: pain site, radiation, body surface area affected by pain
- ✓ Easy and quick to use
- ✓ Patient can complete in waiting room and from visit-to-visit

Neuropathic pain

DN4 – QUESTIONNAIRE

To estimate the probability of neuropathic pain, please answer yes or no for each item of the following four questions.

INTERVIEW OF THE PATIENT

QUESTION 1:

Does the pain have one or more of the following characteristics?	YES	NO
Burning	<input type="checkbox"/>	<input type="checkbox"/>
Painful cold	<input type="checkbox"/>	<input type="checkbox"/>
Electric shocks	<input type="checkbox"/>	<input type="checkbox"/>

QUESTION 2:

Is the pain associated with one or more of the following symptoms in the same area?	YES	NO
Tingling	<input type="checkbox"/>	<input type="checkbox"/>
Pins and needles	<input type="checkbox"/>	<input type="checkbox"/>
Numbness	<input type="checkbox"/>	<input type="checkbox"/>
Itching	<input type="checkbox"/>	<input type="checkbox"/>

EXAMINATION OF THE PATIENT

QUESTION 3:

Is the pain located in an area where the physical examination may reveal one or more of the following characteristics?	YES	NO
Hypoesthesia to touch	<input type="checkbox"/>	<input type="checkbox"/>
Hypoesthesia to pinprick	<input type="checkbox"/>	<input type="checkbox"/>

QUESTION 4:

In the painful area, can the pain be caused or increased by:	YES	NO
Brushing?	<input type="checkbox"/>	<input type="checkbox"/>

YES = 1 point
NO = 0 points

Patient's Score: /10

Pain examination

General observation

- ✓ Starts in the waiting room, ward, even in the car park
- ✓ What do they look like?
 - Dress
 - Demeanour
 - Drowsiness
- ✓ Props
 - Walkers, sticks, wheelchairs, braces, splints
 - Files, x-ray packets
- ✓ How are they moving?
 - Gait
 - Sit-to-stand
 - Spontaneous arm and neck movements
 - Handedness
- ✓ Who's with them and how are they behaving?
 - How are they interacting?
- ✓ Affect, cognition (consider Mental State Examination)
- ✓ Pain behaviours
- ✓ Cues and clues
 - Medic alert bracelets
 - Magnetic necklaces
 - Tattoos
 - IV track marks
 - Scars and wounds
 - Cigarette, alcohol or drug smell
 - Cupping, heat packs, pain-patches
 - Implantable devices







Examination tips




- ✓ Don't hurt the patient
- ✓ **One finger test:** ask patient to point to site of pain **with one finger only**
- ✓ Look, feel, move
- ✓ Compare sides
- ✓ Compare like-with-like
- ✓ Move from non-painful to painful site

- ✓ Pupils (small-opioids; big-stimulants)
- ✓
- ✓ **POST:** Pain Oriented Sensory Testing
-testing for allodynia and sensory changes

<http://fpm.anzca.edu.au/documents/fpm-post-professional-document-ed02-p3.pdf>

POST definitions, equipment and clinical techniques.

Terminology	Equipment		Technique	Transmission	Inference
Dynamic Mechanical Allodynia (Brush-evoked)	Camel hair brush OR Cotton wool ball		Tangentially stroke the skin 2cm brush stroke over 1 sec, then repeat	A β → 2 ^o neuron	central sensitization of nociception
Punctate Mechanical Allodynia	Cocktail stick (toothpick) OR <i>blunt</i> end of Neurotips™		Stimulate the skin using a cocktail stick OR <i>blunt</i> end of Neurotips™ 2 stimuli/sec, repeat	A δ → 2 ^o neuron	central sensitization of nociception
Pressure-evoked Mechanical Allodynia	Index finger		Press soft tissues with tip of index finger until nail bed "blanches" Apply the stimulus for 1 sec, then repeat	A δ → 2 ^o neuron (C fibre?)	central sensitization of nociception
Cold Allodynia	128 Hz steel tuning fork		Apply the steel 'prongs' of a tuning fork to the skin Apply the stimulus for 1 sec, then repeat	A δ → 2 ^o neuron	central sensitization of nociception
Warmth Allodynia (Optional)	C-sized battery warm water bath (such as baby-bottle warmer), thermometer, stopwatch		Warm battery in water at 45°C for 5 minutes; apply base of battery to the skin Apply the stimulus for 1 sec, then repeat	C fibre → 2 ^o neuron	peripheral sensitization of nociception
Hyperpathia Temporal Summation	Cocktail stick (toothpick) OR Neurotips™ needle (optional)		Stimulate skin at 2 stimuli per second (2 Hz) for 30 seconds & assess for change in pain scores, and after-sensations	A δ → 2 ^o neuron	central sensitization of nociception clinical analogue of 'wind-up'

Hyperalgesia (Optional)	Neurotips™ needle		Stimulate the skin using Neurotips™ needle 2 stimuli/sec, repeat	Aδ → 2 ^o neuron	central sensitization of nociception
Touch Sensation	Cotton wool		Touch the skin using a single 'dabbing' motion	aβ fibre → dorsal columns	Intact aβ fibre & dorsal columns function
Vibration Sensation	128 Hz steel tuning fork			aβ fibre → dorsal columns	Intact aβ fibre & dorsal columns function