

Spectrum of Pain Relief Options:

Self-initiated or “Low-tech” Approaches	Treatment Targets (& common medications)	Professional-initiated or “High-tech” Approaches
Immediate Area of Pain:		
Massage, rubbing Moist heat Application ice Positioning Braces, orthotics, compression Remove source, cause of pain	Medications: NSAIDs / Coxib Treat cause (e.g. headache) Capsaicin or menthol cream Local Anesthetics	Physical Therapy (modalities) Electric stimulation (TENS) Specialize massage techniques Trigger Point Injections Low level Laser therapy Surgery
Region of Pain & Spinal level		
Reduce local irritation Contra-lateral stimulation Proximal/distal stimulation	Medications: Opioids, Anticonvulsant (gabapentin) Antidepressants NMDA antagonist Muscle relaxers (tizanidine)	Nerve Blocks (sensory, autonomic) Cryotherapy, Radiofrequency Prolotherapy (sugar injected in tendons) Peripheral Nerve Stimulation Spinal Cord Stimulation Epidural / spinal analgesia Physical manipulation, traction
Whole Body		
Diet, nutritional supplements Exercise, pacing activities Herbal or Aroma Therapy, Breathing techniques Yoga, Tai Chi		Acupuncture, Acupressure Work Hardening Functional Restoration Multidisciplinary Rehabilitation
Brain or Mind-Body Focused		
Relaxation, imagery, hypnosis Knowledge about condition Music, distraction Journal writing Change thinking, attitudes Reduce fear, anxiety, stress Reduce sadness, helplessness	Medications Opioids, Anticonvulsants Antidepressants Other co analgesics	Biofeedback training Counseling Electroconvulsive therapy Deep-Brain Stimulation Cognitive-Behavioral Therapy
Spiritual or Energy-Focused		
Prayer, meditation Self-reflection, re: life / pain Meaningful rituals Energy work (e.g. TT, reiki)		Spiritual Healing Magnetic Therapy Homeopathic remedies
Social Interaction-focused		
Improved communication Volunteering Problem solving Support groups Pet Therapy		Family therapy Functional restoration Vocational training Psychosocial Counseling

Potential Pain Amplifiers and Dampeners by Developmental Stage

<u>Age Group</u>	<u>Potential Amplifiers</u>	<u>Potential Dampeners</u>
Neonate	Vulnerable to cold stress Pain as a stressor Reflexive tensing to sudden stimuli Immature pain inhibiting system	Sucking reflex (sucrose pacifier) Fetal position (swaddle) Kangaroo care Music, heartbeat sounds
Infant	Muscle tension to escape pain / restraint Separation / stranger anxiety (>6 months) Environmental extremes	Familiar voices, music Parental interaction Cuddle, rocking
Toddler and preschooler	Fear of injury, bleeding, losing control Sadness, anxiety and/or anger Shame/guilt pain considered a punishment Cognitive distortion “magical thinking” Intense, prolonged stress Sensitization from pain earlier in life	Distraction (toys, books, pictures). Imagery (“blow away pain” with bubbles or magic, blanket / glove removes pain) Cuddling, rocking Parental interaction Reframe misconceptions, magically Listen to concerns, provide reassurance & understanding to allay fears
School-age child	Fear of injury, losing control/independence Sadness, anxiety and/or anger Embarrassed when exposed/naked Cognitive distortion (e.g. overgeneralization) Intense, prolonged stress Regression to an earlier stage of development Sensitization from pain earlier in life	Distraction (count, jokes, stories, music) Imagery (pleasant or guided), use volume dial (or switch) to lower pain Interaction with friends / family Reframe with rational explanations Information & behavioral rehearsal; what to expect and how it will look and feel
Adolescent	Fear of injury, losing control/independence Sadness, anxiety and/or anger Embarrassed when exposed/naked Cognitive distortion, variety of types Intense, prolonged stress; ineffective coping Sensitization from pain earlier in life	Educate about disorder/procedure & pain Provide for privacy/modesty needs Involve in decision-making Distraction (music, games, TV, hobbies) Imagery (pleasant or guided), relaxation Interaction with friends > family Reframe with rational explanations
Adult	Fear losing control/independence/identity Sadness, anxiety and/or anger Cognitive distortion, variety of types Intense, prolonged stress; ineffective coping Sensitization from pain earlier in life Social isolation, role interruption/conflict Concern about what others think Fear underlying meaning of pain Spiritual distress, loss of connections	Reduce misconceptions & distortions Active involvement in control of pain Allay fears and anxiety when possible Educate about disorder/procedure & pain Involve in decision-making Distraction (music, games, TV, hobbies) Imagery (pleasant or guided), relaxation Interaction with friends & family Coping skills training Promote spiritual/meaningful connections
Elder	See adult amplifiers Declining mental capacity Heightened sensitization from unrelieved pain Multiple comorbid conditions Fatigue, insomnia/sleep disturbances Grief over multiple losses	See adult dampeners Story-telling, life review Optimize independence Altruistic endeavors

Gain Control Model of Pain

