

# Abbreviations

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5-HT	5-hydroxytryptamine	CBT	cognitive-behavioral therapy
6-MAM	6-monoacetyl morphine	CCI	chronic constriction injury
6-MNA	6-methoxy-2-naphthylacetic acid	CCK	cholecystokinin
a-PC	activated protein C	CEA	continuous epidural analgesia
AA	arachidonic acid	CGRP	calcitonin gene-related peptide
AAG	alpha-acid glycoprotein	CHEOPS	Children's Hospital of Eastern Ontario Pain Score
AAMPGG	Australian Acute Musculoskeletal Pain Guidelines Group	CHIP	Checklist for Interpersonal Pain Behavior
AC1/AC8	adenylyl cyclase 1 and 8	CI	confidence interval
ACC	Accident Rehabilitation and Compensation Insurance Corporation; or anterior cingulate cortex	CNS	central nervous system
AIDS	acquired immune deficiency syndrome	COMT	catecholamine-O-methyltransferase
AL-TENS	acupuncture-like TENS	CONSORT	Consolidated Standards for Reporting Trials
ALA	aminolaevulinic acid	COX	cyclooxygenase
ALOS	average length of stay	CPNB	continuous peripheral nerve block
ALT	aminotransferase	CPSP	chronic postsurgical pain
AM	abdominal migraine	CREB	cyclic AMP response element binding protein
AMPA	$\alpha$ -amino-3-hydroxy-5-methyl-4-isaxazole propionic acid; or $\alpha$ -amino-3-hydroxy-5-methylisoxazole-4-propionic acid	CRIES	CRying, Increased vital signs, Expression, and Sleeplessness
AP	action potential	CRP	C-reactive protein
APRV	airway pressure release settings	CRPS	complex regional pain syndrome
APS	acute pain service	CRRT	continuous renal replacement therapy
ARDS	acute respiratory distress syndrome	CSA	continuous spinal analgesia
ASIC	acid sensing ion channel	CSAG	Clinical Standards Advisory Group
ASR	abdominal skin reflex	CSE	combined spinal-epidural
ATP	adenosine triphosphate	CSF	cerebrospinal fluid
AUC	area under the concentration-time curve; or area under the curve	CSH	combat support hospital
B1/B2	bradykinin receptors	CT	computed tomography
BAB	butyl amino-benzoate	CTS	carpal tunnel syndrome
BAN	British Approved Name	CVS	cardiovascular system
BDNF	brain-derived neurotrophic factor	DAG	1,2-diacylglycerol
BIS	bispectral analysis	DAGb	diacylglycerol
BK	bradykinin	DCD	donation after cardiac death
BPI	brief pain inventory	DH	dorsal horn
BPI-SF	short form of the BPI	DLF	dorsolateral funiculus
CaMK	calcium-calmodulin-dependent kinase	DNIC	diffuse noxious inhibitory controls
CaMKII	calcium calmodulin kinase II	DRASH	deployable rapid assembly shelter and surgical hospital
cAMP	cyclic AMP	DRG	dorsal root ganglion
		DS-DAT	Discomfort Scale for Dementia of the Alzheimer Type

DSP	distal symmetrical polyneuropathy	INR	international normalized ratio
EA	electroacupuncture	IP <sub>3</sub>	inositol triphosphate
ECG	electrocardiogram	IPSC	inhibitory post-synaptic currents
ECM	extracellular matrix	ISAP	International Society for the Prevention of Pain
ECMO	extracorporeal membrane oxygenation	IUPHAR	International Union of Pharmacology
ED	emergency departments	i.v.	intravenous
EDA	electronic dental anesthesia	IVRA	intravenous regional anesthesia
EDTA	ethylenediaminetetraacetate		
EEG	electroencephalogram	JCAHO	Joint Commission for Accreditation of Healthcare Organizations
EMG	electromyography	JRA	juvenile rheumatoid arthritis
EMLA	eutectic mixture of local anesthetics		
ENT	ear, nose, and throat	KCC2	potassium-chloride cotransporter
EPSP	excitatory postsynaptic potentials		
ER	emergency room	LA	local anesthetic
EREM	extended-release epidural morphine	LBP	low back pain
ERK	extracellular signal-regulated kinase	LIF	leukemia inhibitory factor
ESR	erythrocyte sedimentation rate	LMWH	low molecular weight heparin
ESWT	extracorporeal shock wave treatment	LOS	length of stay
		LT	low-threshold
FAS	functional activity scale	LTD	long-term depression
FBD	functional bowel disorders	LTP	long-term potentiation
FDA	Food and Drug Administration		
FEB	fentanyl effervescent buccal	M3G	morphine-3-glucuronide
FLACC	Face, Legs, Arms, Cry, Consolability	M6G	morphine-6-glucuronide
fMRI	functional magnetic resonance imaging	MAPK	mitogen-activated protein kinases
FPS	faces pain scale	MARAA	Military Advanced Regional Anesthesia and Analgesia
		MEAC	minimum effective analgesic concentration
GABA	gamma-aminobutyric acid	mEPSC	mini-excitatory postsynaptic current
GBS	Guillain-Barré syndrome	mGluR	metabotropic glutamate receptor
GDNF	glial cell line-derived neurotrophic factor	MIS	minimal intervention strategy
GI	gastrointestinal	MLAC	minimum local analgesic concentration; or minimum local anesthetic concentration
GlyR	glycine receptor		
GPCR	G-proteins coupled receptor	MMT	methadone maintenance treatment
GRECC	Geriatric Research Education Clinical Centre	MOR	μ-opioid receptor
GRS	graphic rating scale	MPQ	McGill Pain Questionnaire
		MRI	magnetic resonance imaging
H2RA	histamine H <sub>2</sub> receptor antagonist	MRP	multidrug resistance protein
HBOT	hyperbaric oxygen therapy	MS	multiple sclerosis
HCP	healthcare providers	MSD	maximum safe dose
HDU	high-dependency unit	MSF	Médecins Sans Frontières
HIV	human immunodeficiency virus		
HPA	hypothalamic-pituitary axis	N/OFQ	Nociceptin/orphanin FQ
HS	harvest site	N <sub>2</sub> O	nitrous oxide
		NBC	nuclear, biological, or chemical
i.a.	intra-articular	NCA	nurse-controlled analgesia
IASP	International Association for the Study of Pain	NCCPC	Noncommunicating Children's Pain Checklist
		NFCS	Neonatal Facial Coding System
IBS	irritable bowel syndrome	NGC	nucleus reticularis gigantocellularis
IC Ca	intracellular calcium	NGF	nerve growth factor
ICU	intensive care unit	NIRS	near-infrared spectroscopy
IHD	intermittent hemodialysis and filtration	NK1	neurokinin 1
IL	interleukin		
i.m.	intramuscular		
i.n.	intranasal		
INCB	International Narcotics Control Board		
INN	International Nonproprietary Name		

NMDA	<i>N</i> -methyl- <i>D</i> -aspartate; or <i>N</i> -methyl- <i>D</i> -aspartic acid	QST	quantitative sensory testing
NNH	numbers-needed-to-harm	RA	rheumatoid arthritis
NNT	number needed to treat	RCT	randomized controlled trial
NO	nitric oxide	RICE	rest, ice, compression, elevation
NOS	nitric oxide synthase	RTA	road traffic accidents
NRM	nucleus raphe magnus	RVM	rostroventromedial medulla
NRS	numerical rating scale	Ry1	ryanodine
NS	nociceptive-specific		
NSAID	nonsteroidal anti-inflammatory drug	s.c.	subcutaneous
NT-3	neurotrophin-3	SAD	substance abuse disorder
NT-4/5	neurotrophin-4/5	SCS	spinal cord stimulation
NTS	nucleus tractus solitarius	SEP	somatosensory evoked potential
NUD	non-ulcer dyspepsia	SF-MPQ	short form MPQ
NYHA	New York Heart Association	SIRS	systemic inflammatory response syndrome
		SLED	slow low efficiency dialysis
OA	osteoarthritis	SNI	spared nerve injury
OIH	opioid-induced hyperalgesia	SNP	single nucleotide polymorphism
OP	occiput–posterior	SNRI	serotonin and norepinephrine reuptake inhibitor
OR	odds ratio	SOM	somatostatin
OSA	obstructive sleep apnea	SP	substance P
OTC	over-the-counter	SPID	summed pain intensity difference
OTFC	oral transmucosal fentanyl citrate	STAI	State-Trait Anxiety Inventory
		STRICTA	Standards for Reporting Interventions in Controlled Trials of Acupuncture
PACU	postanesthesia care unit	STT	spinothalamic tract
PAG	periaqueductal gray		
PAINAD	Pain Assessment in Advanced Dementia	T4	fourth thoracic
PAR	proteinase-activated receptors	TCA	tricyclic antidepressants
PAR2	proteinase-activated receptor-2	TCM	traditional Chinese medicine
PBN	parabrachial nucleus	TEA	thoracic epidural analgesia
PCA	patient-controlled analgesia; or postconceptional age	TENS	transcutaneous electrical nerve stimulation
PCEA	patient-controlled epidural analgesia	TNF $\alpha$	tumor necrosis factor-alpha
PCINA	patient-controlled intranasal analgesia	TNF	tumor necrosis factor
pCREB	phosphoCREB	TNS	transient neurologic symptom
PCTS	patient-controlled transdermal system	TOTPAR	total pain relief
PD	primary dysmenorrhea	TPBV	thoracic paravertebral block
PDPH	postdural puncture headache	TRI	transient radicular irritation
PET	positron emission tomography	trk	tyrosine kinase
PG	prostaglandin	trkA	tyrosine kinase A
PGE2	prostaglandin E <sub>2</sub>	TRP	transient receptor potential
PID	pain intensity difference	TTX	tetrodotoxin
PIPP	Premature Infant Pain Profile	TTX-R	tetrodotoxin-resistant
PKA	protein kinase A	TTX-S	tetrodotoxin-sensitive
PKC	protein kinase C		
PLA <sub>2</sub>	phospholipase A <sub>2</sub>	USAA	Uniformed Services Society of Anesthesiologists
PLC	phospholipase C	USAN	US Approved Name
PNB	peripheral nerve block	USP	United States Pharmacopeia
PONV	postoperative nausea and vomiting		
PPI	proton pump inhibitor	VA	Veterans Administration
PPP	Pediatric Pain Profile	VAP	ventilator-associated pneumonia
PRI	pain rating index	VAS	visual analog scale
PRID	pain relief and intensity difference	VDS	verbal descriptor scale
PROSPECT	Procedure-specific Postoperative Pain Management	VGCC	voltage-gated calcium channels
		VNRS	Verbal Numerical Rating Scale

VR1	vanilloid receptor 1	WDR	wide dynamic range
VRS	verbal rating scale	WFSA	World Federation of Societies of Anaesthesiologists
WADA	World Anti-doping Agency	WHO	World Health Organization
WBPQ	Wisconsin Brief Pain Questionnaire	WMD	weighted mean difference