

Opioid Equivalency Table (morphine, oral)								
Analgesic	Strength (relative)	Equivalent dose (10 mg oral morphine)	Bioavailability	Half-life of active metabolites (hours)	Oral-to-parenteral ratio	Speed of onset	Duration	Chemical / structural class
Paracetamol (non-opioid)	1/360	3600 mg	63–89%	1–4				
Aspirin (NSAID, non-opioid)	1/360	3600 mg	80–100%	3.1–9				
Ibuprofen ^[7] (NSAID, non-opioid)	1/222	2220 mg	87–100%	1.3–3				
Diffunisal (NSAID, non-opioid)	1/160	1600 mg	80–90%	8–12				
Naproxen ^[7] (NSAID, non-opioid)	1/138	1380 mg	95%	12–24				
Diclofenac ^{[7][8]} (NSAID, non-opioid)	1/14 (est.)	160 mg (est.)	50–60%	1–4				
Nefopam (Centrally-acting non-opioid)	5/8 (est.)							
Indomethacin (NSAID non-opioid)	1/64 (est.)							
Piroxicam (NSAID non-opioid)	1/120 (est.)							
Dextropropoxyphene ^[9]	1/13–1/20	130–200 mg						
Codeine	1/10–3/20	67–100 mg PO	~90%	2.5–3 (C6G 1.94; ^[10] morphine 2–3)				
Tramadol	1/10	~100 mg	75% (IR), 85–90% (ER)	6.0–8.8 ^[11] (M1)				
Opium (oral)	1/10	~100 mg	~35%	2.5–3.0 (morphine, codeine)				
Tilidine	1/5	50 mg						
Dihydrocodeine	1/5	50 mg	20%	4				
Anileridine ^[12]	1/4	40 mg						
Alphaprodine	1/4–1/6	40–60 mg						
Tapentadol	3/10 ^[13]	32 mg	32% (fasting)					
Pethidine (meperidine)	1/3	30 mg SC/IM/IV, 300 mg PO	50–60%	3–5				
Benzylfentanyl	1/2							
AH-7921	4/5							
Hydrocodone	1	10 mg	=80%	3.8–6				
Metopon	1	10 mg						
Pentazocine lactate (IV) ^[14]	1	10 mg SC/IV/IM, 150 mg PO						
Morphine (oral)	1	10 mg	~25%					
Oxycodone ^[15]	1.5	6.67 mg	=87%	3–4.5				
Spiradoline	1.5							
Nicomorphine	2–3	5–10 mg	20%	4				
Morphine (IV/IM)	3	3.33 mg	100%	2–3				

Clonitazene	3	3.33 mg						
Methadone (acute) ^{[16][17]}	3–4	2.5–3.33 mg	40–90%	15–60				
Methadone (chronic) ^[17]	2.5–5	3.33 mg	40–90%	15–60				
Phenazocine	4	~2.5 mg						
Diamorphine (heroin; IV/IM) ^[18]	4–5	2–2.5 mg	100%	<0.6				
Dezocine	4–6	1.6–2.5 mg	97% (IM)	2.2				
Hydromorphone ^[19]	4	1.5 mg SC/IV/IM, 7.5 mg PO	62%	2–3				
Oxymorphone ^[15]	3–7	10 mg PO, 1 mg IV	10%–	7.25–9.43				
U-47700	7.5	15 mg		1.5-3				
Levorphanol ^[20]	8	1.25 mg	70%	11–16				
Desomorphine (Krokodil)	8–10	1 mg–1.25 mg	~100% (IV)	2–3				
N-Phenethylnormorphine	8–14							
Alfentanyl	10–25							
Trefentanil	(10–25)+							
Brifentanil	(10–25)+							
Acetylfentanyl	15							
7-Hydroxymitragynine	17	~0.6 mg						
Furanylfentanyl	20							
Butyrfentanyl	25							
Enadoline	25							
Buprenorphine ^[9]	40	0.4 mg	35–40% (SL)	20–70, mean 37				
N-Phenethyl-14-ethoxymetopon	60							
Etonitazene	60	160 µg						
Phenomorphane	60–80	0.13–0.16 mg						
N-Phenethylnordesomorphine	85							

N-Phenethylnor-desomorphine	85							
Phenaridine	(50–100)-							
Fentanyl	50–100	0.1 mg (100 µg) IM/IV	33% (SL); 92% (TD)	0.04 (IV); 7 (TD)				
Acrylfentanyl	(50–100+)							
14-Cinnamoyloxycodine	177							
Remifentanyl	100–200	50 µg–100 µg						
Ocfentanyl	125–250	40–80 µg						
Ro4-1539	240–480							
Sufentanyl	500–1,000	10–20 µg		4.4				
BDPC	504	~20 µg						
C-8813	591							
4-Phenylfentanyl	800							
3-Methylfentanyl	1000–1500							
Etorphine	1,000–3,000	3.3–10 µg						
Ohmefentanyl	6300							
Acetorphine	8700							
Dihydroetorphine ^[21]	1,000–12,000	0.83–10 µg (20–40 µg SL)						
2-Fluorohmefentanyl	18,000							
4-carboethoxyohmefentanyl	30,000							
R-30490	(10,000–100,000)-							
Carfentanyl ^[22]	10,000–100,000	0.1–1.0 µg		7.7				
Lofentanyl	(10,000–100,000)+							