

**Table 1. Summary of the characteristics of the selected clinical trials**

Author, year	Study type	Participants	Laser Group I	Laser Group II	Control Group	Comparison intervention	Laser dosage	Number of sessions	Control	Follow-up (weeks)
Cetiner et al, 2006 <sup>2</sup>	Rand., pros., double blind	39	24		15	NA	GaAlAs - 830 nm, 7 J/cm <sup>2</sup> , 162 s	10	A, disconnected	4
Conti, 1997 <sup>9</sup>	Rand., pros., double blind	20	10		10	NA	GaAlAs - 830 nm, 100 mW, 4 J/cm <sup>2</sup> , 40 s	3	A, disconnected	3
Da Cunha et al, 2008 <sup>16</sup>	Rand., pros., double blind	40	20		20	NA	GaAlAs - 830 nm, 500 mW, 4 J/cm <sup>2</sup> , 20 s	4	A, disconnected	4
Da Silva et al, 2012 <sup>13</sup>	Rand., pros., double blind, parall.	45	15	15	15	GaAlAs - 830 nm, 70 mW, 105 J/cm <sup>2</sup>	GaAlAs - 830 nm, 70 mW, 52.5 J/cm <sup>2</sup>	10	A, disconnected	5
Demirkol et al, 2015 <sup>17</sup>	Rand., pros., double blind, parall.	30	10	10	10	occlusal splints	Nd:Yang - 1064 nm, 250 mW, 8 J/cm <sup>2</sup> , 20 s	10	NA	3
Emshoff et al, 2008 <sup>5</sup>	Rand., pros., double blind	52	26		26	NA	HeNe - 632.8 nm, 30 mW, 1.5 J/cm <sup>2</sup>	20	A, disconnected	8
Fikácková et al, 2007 <sup>7</sup>	Rand., pros., double blind, parall.	80	33	28	19	GaAlAs - 830 nm, 400 mW, 15 J/cm <sup>2</sup>	GaAlAs - 830 nm, 400 mW, 10 J/cm <sup>2</sup>	10	A, disconnected	4
Kulekcioglu et al, 2003 <sup>19</sup>	Rand., pros., double blind	35	20		15	NA	GaAs - 904 nm, 17 mW, 3 J/cm <sup>2</sup> , 180 s	15	A, disconnected	4
Lima et al, 2013 <sup>24</sup>	Rand., pros., double blind	58	32		26	NA	GaAlAs - 830 nm, 40 mW, 8 J/cm <sup>2</sup> , 60 s	12	A, disconnected	6
Mazzetto et al, 2010 <sup>8</sup>	Rand., pros., double blind	40	20		20	NA	GaAlAs - 830 nm, 40 mW, 5 J/cm <sup>2</sup> , 50 s	8	A, disconnected	4
Öz et al, 2010 <sup>14</sup>	Rand., pros., double blind, parall.	40	20		20	Occlusal splints	GaAlAs - 820 nm, 300 mW, 3 J/cm <sup>2</sup> , 10 s	10	30-90 days	5
Pereira et al, 2014 <sup>8</sup>	Rand., pros., double blind parall.	19	19 side face		19 side face	GaAlAs - 795 nm, 100 mW, 8 J/cm <sup>2</sup> , infra red, 40 s	GaAlAs - 660 nm, 100 mW, 4 J/cm <sup>2</sup> in TMJ, red 40 s	3	NA	3
Venezian et al, 2010 <sup>15</sup>	Rand., pros., double blind, parall.	48	24		24	GaAlAs - 780 nm, 60 mW, 60 J/cm <sup>2</sup> , 40 s	GaAlAs - 780 nm, 50 mW, 25 J/cm <sup>2</sup> , 20 s	8	NA	4

*Rand.: Randomized. Pros.: Prospective. NA: Not applicable*

Source: by the authors

**Table 2. Summary of the main outcomes of the selected clinical trials**

Author, year		Pain			Mouth opening		
		Experimental	Control	Comparison	Experimental	Control	Comparison
Cetiner et al, 2006 <sup>2</sup>	Before	7.56 (+ 1.46)	6.57 (+1.91)	NA	33.96 ± 8.35	35.83 ± 8.66	NA
	Immediately	2.25 (+ 2.05)	5.60 (+1.76)	NA	39.67 ± 6.45	38.67 ± 8.37	NA
	4 weeks	0.82 (+1.33)	5.19 (+ 2.01)	NA	40.96 ± 5.94	38.58 ± 8.42	NA
Conti, 1997 <sup>9</sup>	Before	56	44	NA	0.561	0.024	NA
	3 weeks	20	46	NA	0.035	0.098	NA
	4 weeks	6.87 (+ 2.12)		NA			
Cunha et al, 2008 <sup>16</sup>	4 weeks	3.62 (+ 2.45)		NA			
Da Silva et al, 2012 <sup>13</sup>	Outset				32.0 (+ 5.20)	31.90 (+ 4.40)	32.30 (+ 4.70)
	Immediately				32.93 (+ 5.51)	32.27 (+ 4.67)	34.73 (+ 5.35)
	5 applications				34.33 (+ 4.94)	31.87 (+ 4.54)	36.87 (+ 4.30)
	10 applications				37.20 (+ 4.81)	31.53 (+ 4.11)	36.87 (+ 4.22)
	5 weeks				35.80 (+ 4.98)	30.87 (+ 4.11)	34.80 (+ 4.42)
Demirkol et al, 2015 <sup>17</sup>	Before	6.45 (+ 1.707)	6.60 (+ 1.506)	7.40 (+ 2.459)			
	3 weeks	1.50 (+ 2.273)	2.0 (+ 2.39)	6.60 (+ 2.319)			
Emshoff et al, 2008 <sup>5</sup>	Before	38.2 (+7.6)	39.7 (+12.2)	NA			
	2 weeks	27.4 (+17.5)	25.2 (+12.7)	NA			
	4 weeks	20.9 (+17.7)	16.5 (+15.0)	NA			
	8 weeks	12.3 (+16.1)	11.8 (+16.8)	NA			
Fikácková et al, 2007 <sup>7</sup>	Worsening acute pain	0 (0%)	0 (0%)	0 (0%)			
	Worsening chronic pain	1 (4%)	0 (0%)	1 (6%)			
	Unchanged acute pain	1 (11%)	4(34%)	3 (30%)			
	Unchanged chronic pain	3 (12%)	8 (100%)	5 (28%)			
	Improved acute pain	8 (89%)	7 (66%)	7 (70%)			
	Improved chronic pain	20 (84%)	0 (0%)	12 (67%)			
Kulekcioglu et al, 2003 <sup>19</sup>	Before	42.88 (+27.0)	35.3 (+29.0)	NA	36.0 (+8.0)	37.4 (+11.2)	NA
	Immediately	10.5 (+8.4)	8.0 (+9.4)	NA	42. (+8.4)	40.8 (+8.9)	NA
	4 weeks	5.5 (+17.9)	5.3 (+6.4)	NA	43.7 (+7.4)	40.8 (+8.9)	NA
Lima et al, 2013 <sup>24</sup>	Without acute pain 1	0	34.4	NA	0	0	NA
	Without chronic pain	0	0	NA	19.2	19.2	NA
	Acute mild pain 1	0	65.6	NA	18.8	3.1	NA
	Chronic mild pain	0	7.7	NA	53.8	30.8	NA
	Acute moderate pain 2	53.1	0	NA	81.3	46.9	NA
	Chronic moderate pain	7.7	76.9	NA	26.9	34.5	NA
	Severe acute pain 2	43.8	0	NA	0	50	NA
	Severe chronic pain	50	15.4	NA	0	15.4	NA
	Severe acute pain 2	3.1	0	NA			NA
	Severe chronic pain 3	42.3	0	NA			NA
	Before	5.40	5.80	NA	48.25	47.90	NA

	8 applications	2.10	4.45	NA	50.60	47.30	NA
	7 days	2.50	5.15	NA	50.25	47.5	NA
	4 weeks	2.95	5.60	NA	50.55	46.35	NA
Öz et al, 2010 <sup>14</sup>	Before	48.5	NA	52.7	44.20 (6.14)		43.20 (6.57)
	5 weeks	16.8	NA	31.6	47.20 (5.51)		44.45 (5.90)
Pereira et al, 2014 <sup>8</sup>	Outset	7.38 (1.7)	NA	6.91 (1.6)			
	24 hours	5.04 (2.4)	NA	4.65 (2.5)			
	30 days	4.76 (2.8)	NA	4.20 (2.4)			
	90 days	4.84 (2.9)	NA	4.44 (2.5)			
	180 days	4.95 (2.9)	NA	3.73 (2.6)			
Venezian et al, 2010 <sup>15</sup>	Before	7.66	NA	6.49			
	Immediately	4.87	NA	3.45			
	4 weeks	5.37	NA	4.12			
	Before	7.99	NA	7.37			
	Immediately	4.8	NA	3.87			
	4 weeks	5.45	NA	3.87			