

**WALT Veterinary Dosage Recommendations Task Force**  
**Scanning Application: CW & Switched/Gated-CW**

**Feine:10 lb: Osteoarthritis/Degenerative Joint Disease**

**Contact Application with Constant Motion**

10# Feline Pathology / Anatomical Location	Area (cm <sup>2</sup> )	Dosage (J/cm <sup>2</sup> )	Power (Watts)	Time (Min:Sec)	Total Energy (Joules)	Irradiance, 25mm (W/cm <sup>2</sup> )	Irradiance, 50mm (W/cm <sup>2</sup> )
	Note 1.	Note 2.	Note 3.	Note 3.		Note 4.	Note 4.
Manus/Pes	40	3	1	2:00	120	0.20	0.05
Carpus/Tarsus	50	4	2	1:45	210	0.41	0.10
Elbow	60	5	3	1:45	315	0.61	0.15
Shoulder	90	6	4	2:20	560	0.82	0.20
Stifle	90	4	3	2:00	360	0.61	0.15
Hip	90	6	4	2:20	560	0.82	0.20
Back-Lumbar	100	7	5	2:20	700	1.02	0.26
Back-Thoracic	120	7	5	2:45	825	1.02	0.26
Neck	80	7	4	2:20	560	0.82	0.20
IVDD	120	7	5	2:45	825	1.02	0.26

**CANINE 50 lb: Osteoarthritis/Degenerative Joint Disease**

**Contact Application with Constant Motion**

50# Canine Pathology / Anatomical Location	Area (cm <sup>2</sup> )	Dosage (J/cm <sup>2</sup> )	Power (Watts)	Time (Min:Sec)	Total Energy (Joules)	Irradiance, 25mm (W/cm <sup>2</sup> )	Irradiance, 50mm (W/cm <sup>2</sup> )
	Note 1.	Note 2.	Note 3.	Note 3.		Note 4.	Note 4.
Manus/Pes	100	5	4	2:00	480	0.82	0.20
Carpus/Tarsus	100	6	5	2:00	600	1.02	0.26
Elbow	180	6	6	3:00	1080	1.22	0.31
Shoulder	200	8	7	4:00	1680	1.43	0.36
Stifle	180	7	6	3:30	1260	1.22	0.31
Hip	220	8	8	3:20	1760	1.63	0.41
Back-Lumbar	250	8	9	3:45	2025	1.84	0.46
Back-Thoracic	275	8	9	4:00	2160	1.84	0.46
Neck	220	8	8	3:20	1760	1.63	0.41
IVDD	275	8	9	4:00	2160	1.84	0.46

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**Wounds - Superficial or Acute**

**Non-Contact Application with Constant Motion**

Area (cm <sup>2</sup> )	Dosage (J/cm <sup>2</sup> )	Power (Watts)	Time (Min:Sec)	Total Energy (Joules)	Irradiance, 25mm (W/cm <sup>2</sup> )	Irradiance, 50mm (W/cm <sup>2</sup> )
Note 1.	Note 2.	Note 3.	Note 3.		Note 4.	Note 4.
25	3	1	1:15	75	0.20	0.05
50	3	2	1:15	150	0.41	0.10
100	3	2	2:30	300	0.41	0.10
150	3	3	2:30	450	0.61	0.15
200	3	3	3:20	600	0.61	0.15
250	3	3	4:10	750	0.61	0.15
300	3	4	3:45	900	0.82	0.20

**Wounds - Deep or Chronic**

**Non-Contact Application with Constant Motion**

Area (cm <sup>2</sup> )	Dosage (J/cm <sup>2</sup> )	Power (Watts)	Time (Min:Sec)	Total Energy (Joules)	Irradiance, 25mm (W/cm <sup>2</sup> )	Irradiance, 50mm (W/cm <sup>2</sup> )
Note 1.	Note 2.	Note 3.	Note 3.		Note 4.	Note 4.
25	5	1	2:05	125	0.20	0.05
50	5	2	2:05	250	0.41	0.10
100	5	4	2:05	500	0.82	0.20
150	6	4	3:45	900	0.82	0.20
200	6	5	4:00	1200	1.02	0.26
250	6	6	4:10	1500	1.22	0.31
300	6	6	5:00	1800	1.22	0.31

**Notes:**

1. The area to be treated is defined as:
  - a. For joints and musculoskeletal conditions – the area of treatment includes the joint and all biomechanically associated soft tissue, treated from 360° or from as many different directions as possible.
  - b. Wounds – the area of treatment includes the entire surface of the wound and a surrounding border of 2-3 cm of normal tissue. Treatment from multiple directions is recommended if possible, particularly for deeper wounds.
2. If a response to therapy has not been noted after 2-4 treatments the dosage should be increased.

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### **Scanning Application: CW & Switched/Gated-CW**

3. Power and time adjustment – If the laser device being used is lower power than the recommended power, the time can be increased proportionally. For example, with a continuous emission, a 4 watt laser delivers total energy of 240 joules in one minute; a 2 watt laser will deliver the same total energy in 2 minutes and a 1 watt laser delivers the same total energy in 4 minutes.
4. Irradiance is the intensity of the beam of light upon the irradiated surface.

**User should be familiar with device specifications. Consult device documentation or manufacturer regarding any information that is unclear or absent.**

#### **Additional Considerations:**

- These protocols are for “ideal” 10 pound feline and 50 pound canine patients with light skin and hair coats. The dosage and total energy should be adjusted up or down depending on size of patient, hair color and length, and skin color.
- Acute conditions may better respond to increased frequency of treatment or increased total energy.
- The recommended power and time are appropriate for CW delivery. If pulsing delivery is used, power and time must be adjusted to deliver the recommended total energy. Pulsed delivery may be of benefit in treatment with PBM but there is insufficient consensus to make recommendations in this document about when to use pulsed versus CW, or which specific frequencies to use if pulsing.
- These recommendations do not apply to super-pulsed lasers due to their different mode of operation.