

TOP 5 / PEER REVIEWED





## TEACHING TARGET

WHEN CARING FOR RECUMBENT DOGS, EMPATHY IS KEY; MAKE SURE YOUR TEAM IS KNOWLEDGEABLE ABOUT HOW TO KEEP PATIENTS COMFORTABLE AND AT EASE.

# Care Tips for Down Dogs

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Recumbent patients (ie, down dogs) can present for various reasons. Intervertebral disc disease, fibrocartilaginous embolism, and trauma are the common neurologic causes, but orthopedic disease, cancer, neuromuscular disease, endocrine disorders, and other conditions can cause prolonged recumbency. Regardless of the cause, clients need to nurse their pets to keep them healthy and comfortable and it is important that veterinary team members clearly communicate the required at-home care, which should involve the following considerations.

# TOP

## Top 5 Care Tips for Down Dogs

- Provide proper bedding
- Teach bladder management
- Rotate, massage, & provide basic therapies
- Know nutritional needs
- Monitor for pain & neurologic changes.

# 1 Provide Proper Bedding

Appropriate bedding offers support and prevents development of further problems. Too much bedding may cause the patient to struggle to right itself, leading to reinjury or a new injury. Too little bedding increases the risk for decubital ulcers (ie, bed sores) at various pressure points, creating more stress on the recuperating body.

Keep bedding clean and dry. Recumbent patients often lie in the same position for hours, creating a natural buildup of dirt, hair, and oil from the skin. Some patients may eliminate on their bedding, which should be replaced with clean, dry bedding as quickly as possible. Make sure the patient is completely dry after bathing or hydrotherapy because moisture may build up and lead to decubital ulcers or other skin issues. Clip the patient's hair around the urogenital area to help facilitate cleaning and reduce moisture buildup, and apply a diaper rash cream or ointment to create a barrier and help prevent rawness or urine scald. Baby powder also can help prevent moisture buildup.

Use dry, soft, smooth-surfaced bedding (eg, towels, blankets, comforters, sleep pads used for camping, pet beds) to minimize

skin irritation. Pillows can help brace patients or lift them into a sternal position while letting their legs hang in a normal position (ie, frogging). Place a waterproof cover on the pillow to minimize moisture buildup and soiling.

## Bladder Management

### PALPATION & EXPRESSION

Many recumbent patients require bladder expression; it is important that owners be taught how to palpate the bladder, as well as how and when to express it.

- Using one or both hands, depending on the patient's size, place fingers on both sides of the abdomen.
- Start just below the ribs and squeeze gently inward.
- Slide fingers caudal until the bladder is located; palpate for size and tone. (The bladder has been described as a water balloon in the abdomen.)
- Apply gentle pressure to express the urine.
- Avoid expression if the bladder:
  - Is small; this will allow it to fill and the patient is more likely to feel the need to urinate.
  - Has a strong tone; it may have lost its elasticity from being overdistended for too long or may be an upper motor neuron bladder that requires medication to relax the detrusor and urethral sphincter muscles.

Note: Frequent bladder expression can be painful, and applying too much pressure may result in rupture and the need for emergency surgery.

### INTERMITTENT CATHETERIZATION

If the owner is unable to express or empty the patient's bladder, intermittent catheterization may be necessary. Intermittent catheterization, which is not typically performed on female patients because they require sedation or general anesthesia, requires aseptic technique.

### LONG INDWELLING OR CLOSED CATHETER SYSTEM

If these systems are required, the patient may need to be hospitalized for maintenance. The catheter and supplies differ for each system, but the placement technique is similar.<sup>13</sup>

# 2 Teach Bladder Management

Instruct owners of recumbent patients on basic bladder management. Pets that can urinate on their own should be given adequate sling

# Rotating patients that cannot move on their own helps take pressure off their limbs and relieve pressure points.

## Monitoring Urine Stream & Quantity

Owners should be encouraged to monitor their pets by answering these questions:

- *Is the stream normal (ie, strong, solid), sporadic, squirted intermittently, dribbled, or non-existent?*
- *Can the pet posture to urinate?*
- *Does the pet urinate its normal quantity or is there a decrease?*
- *Are the color and odor normal? (This is particularly important because pets unable to urinate are more susceptible to urinary tract infections.)*

Note: The owner's answers may indicate a potential problem or worsening of a problem that should be evaluated by a veterinarian. Any patient that cannot urinate should be evaluated immediately.

support and taken outside several times a day. Rolled towels or luggage straps can also be used as makeshift slings, although patients and owners may find the commercially available Walkabout ([walkabout-harnesses.com](http://walkabout-harnesses.com)) or Help 'Em Up ([helpemup.com](http://helpemup.com)) harnesses more comfortable for patients. Care should be taken to ensure the penis or vulva are not occluded so that the patient can urinate. Make owners aware that patients with neurologic conditions may urinate when even minimal pressure is placed on the abdomen so they can avoid accidental voiding when lifting their pets. Patients with both lower motor neuron and upper motor neuron bladders may have urine spill over and out when a sling is used.

Bladder management for patients that cannot urinate on their own can include palpation and bladder

expression, intermittent catheterization, or use of a long indwelling or closed catheter system (see **Bladder Management**).

Owners should also be advised to monitor their pet's urine stream and quantity (see **Monitoring Urine Stream & Quantity**).

## 3 Rotate, Massage, & Provide Basic Therapies

Just like humans, canine and feline patients can become stiff when they remain in the same position for long periods of time and may also get decubital ulcers at pressure points. Patient rotation, massage, passive range of motion (PROM) exercises, and thermotherapy can help.

Rotating patients that cannot move on their own helps take pressure off

their limbs and relieve pressure points. Patients down in the pelvic limbs need only the hindquarters rotated, whereas patients down in all 4 limbs should be rotated into right lateral, left lateral, and sternal positions, always keeping the head elevated to prevent aspiration pneumonia. Rotate patients with known or suspected spinal disorders with special care, as the twisting motion can exacerbate their problem or cause reinjury.

Basic massage techniques and PROM exercises will help keep the joints and muscles limber and loose, as well as increase blood circulation (see **Recommended Basic Routines**, page 34). Owners can also perform more advanced physical rehabilitation exercises at home but only after a definitive diagnosis has been reached and a specific physical rehabilitation plan been developed by the veterinarian because such exercises may cause further injury.

Thermotherapy (ie, cold- or warm-packing an area of concern for 10 to 15 minutes throughout the day as needed) also can easily be incorporated into a patient's at-home protocol. Cold-packing is beneficial for swelling and assisting vasoconstriction, edema, and pain relief, as well as immediate post-operative care and following physical rehabilitation. Warm-packing is beneficial for vasodilation, increasing cellular

## Recommended Basic Routines

### Passive Range of Motion (PROM) Technique

- Gently flex and extend the toes several times.
- Repeat at the carpal and tarsal joints, then repeat at each joint while working up the leg through the hips and shoulders.
- Follow with a bicycle motion, flexing and extending the entire leg.

### Massage

- Effleurage technique: Glide the fingers over the muscle body; begin with gentle pressure that is gradually increased.<sup>14,15</sup>
- Petrissage technique: This involves simply kneading the muscles.<sup>14,15</sup>

Note: Massage prior to PROM benefits some patients by helping relax the muscles, whereas massage following PROM may benefit others by helping them relax.

These websites provide more information for canine rehabilitation training and certification:

- University of Tennessee: [utvetce.com](http://utvetce.com)
- Canine Rehab Institute: [caninerehabinstitute.com/ccrt.html](http://caninerehabinstitute.com/ccrt.html)

metabolism, relaxing muscles, pain relief, reducing seromas, and before physical rehabilitation exercises.<sup>1,2</sup> Always discontinue thermotherapy if cyanotic tissue (cold-packing) or skin irritation is evident. Always place a clean, dry towel between the patient and the warm or cold pack to prevent skin damage. Hydrotherapy is also often recommended.

## 4 Know Nutritional Needs

A recumbent patient's metabolic needs differ from a healthy patient's.<sup>1</sup> Use this formula to calculate a recumbent patient's daily caloric needs<sup>3-5</sup>:

$$\begin{aligned} &\text{Resting energy requirements} \\ &\text{(RER) (kcal/day)} \\ &= 70 \times \text{body weight (kg)}^{0.75} \end{aligned}$$

Recumbent patients, especially those normally very active, may have a decreased appetite or become anorexic for various reasons (eg, medications causing nausea or inappetence, pain, depression). It may be necessary to entice patients to eat while staying aware of their specific dietary needs. It is important that owners encourage patients to eat, but they should be cautioned about overfeeding, especially with obese patients whose extra weight impacts their joints and spine when recumbent.

If a patient will not or cannot eat enough to meet its nutritional needs, consider alternatives such as feeding tubes or total parenteral nutrition.<sup>4-6</sup> Do not forget patients' daily water requirements; for example, water intake is important to reduce the risk for cystitis and UTIs in down dogs with bladder impairment. Encourage patients to drink by adding small amounts of low-sodium chicken or beef broth to their water. Syringing water or administering subcutaneous fluids may also be recommended in some situations.

## 5 Monitor for Pain & Neurologic Changes

Educate owners about signs of pain or discomfort. These include decreased appetite, anorexia, trembling, being more quiet than usual, reluctance to move, panting, licking or chewing on a body part, hanging the head (which may indicate painful neck or shoulders), squinting (painful neck or head), arching the back (spinal pain/kyphosis), and tensing or flinching when touched.

Some patients exhibit behavior changes (eg, hiding, clinging to owners more than usual, trying to bite).<sup>7</sup> Patients with any of these signs should be evaluated by a veterinarian to assess the cause and initiate appropriate treatment.

# It is important to stimulate patients and remind them of things they used to do.

Various treatments are available for down dogs in pain. It is important to form an individualized plan for each patient, taking into consideration the many medications and complementary therapies available. For example, consider an NSAID such as carprofen vs a steroid to treat inflammation or gabapentin and/or amantadine for neuropathic pain. Drug interactions also need to be considered when forming a patient's drug protocol. Cold laser therapy, thermotherapy, acupuncture, and acupressure are now used more commonly in veterinary medicine.

- Cold laser therapy can treat a variety of issues (eg, pain, inflammation, edema); it stimulates metabolic and cellular repair and can help reduce fibrous tissue formation.<sup>8</sup>
- Thermotherapy can help with muscle relaxation and pain relief, and provide other benefits (see **Step 3**, page 33).
- Acupuncture, a good alternative for patients not responding to medication or for postoperative or chronic pain, must be performed by a trained, licensed veterinarian and involves inserting thin sterile needles into specific locations to stimulate the nerve and interrupt the pain signals.<sup>9-11,16</sup>
- Acupressure, which also requires special training, involves applying pressure to specific points to combat pain.<sup>12</sup>

## Conclusion

Down dogs require extra care, but owners and team members often find it a bonding experience. Humans should put themselves in the patient's position and think about how they would like to be treated. As well as the treatments and considerations above, it is important to stimulate patients and remind them of things they used to do, so take them outside and let them experience the fresh air, the grass, and the smells that hopefully they will soon enjoy again. ■

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## TEAM TAKEAWAYS:



**Veterinarians:** Many owners of recumbent patients can be taught to manage the nursing care of these pets at home; however, be careful to clearly delineate endpoints where evaluation by a veterinarian is necessary.

**Nursing Team:** Empower clients, who are likely worried and emotionally hurt, to find energy and comfort in the bond with their pets. Empower yourself to treat both client and patient with empathy.

**Client Care Team:** Schedule a follow-up call to check in on both the client and the recumbent patient in between appointments to give the family yet another reminder that the practice team cares about their wellbeing.