

Katja Bredlau-Morich, Author of *Kinesiology Taping for Horses*

KINESIOLOGY TAPING FOR DOGS

The Complete Guide
to Taping for Canine
Health and Fitness



PIONEERING
APPLICATIONS
from a
Certified Canine
Physiotherapist

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Muscle Taping

There are three different types of muscles:

- **The smooth musculature:** These muscles are regulated by the Autonomic Nervous System (ANS), which unconsciously regulates the gut, heart, lungs, and other internal organs.
- **The cardiac musculature:** This is regulated by its very own heart sinus node, and it can only be found in the heart muscle, as indicated by the name. The cardiac muscle also cannot be controlled consciously.
- **The skeletal musculature:** These muscles are responsible for the movement of the body. They are attached via tendons to the skeleton and cross over bones and joints, and sometimes over two joints. During muscle contractions, the muscle fibers shorten, moving the attached bones closer to each other, while flexing the joint. When the muscles relax and stretch the muscle, fibers elongate and the bones move away from each other, causing the joint to straighten again. The skeletal musculature can be controlled

voluntarily and cause the muscles to contract and relax.

Skeletal muscles are the ones you can and want to influence with kinesiology tape. Every muscle has a tendon of origin, a muscle belly with muscle fibers and a tendon of insertion. The tendons attach the muscle to the bone and the muscle belly goes over the articulated bone and joint.

The muscle belly consists of many muscle fibers and these fibers are made of millions of tiny muscle myofibrils. When the muscles contract, these tiny fibrils and filaments glide by each other and into each other. As a result, the muscle shortens, bringing the two bones closer to each other and movement begins. This is a very simplified version of muscle work, but it is the basic principle for muscle activity and the formation of motion. A requirement for an effective *Muscle Taping* is good anatomical knowledge of the skeletal musculature, the origin and insertion, and the direction of the muscle. The origin is usually closer to the body and attached to the less mobile bone. The insertion is usually farther away from the body and attached to the more mobile bone.

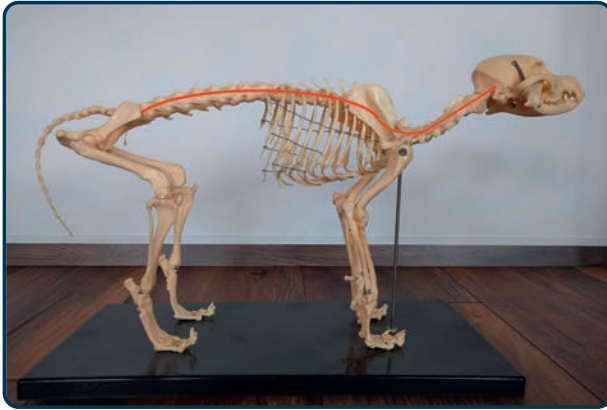
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For example, let's look at the *M. longissimus*, the long back muscle. Anatomically this muscle consists of various segments: the *M. longissimus lumborum* (lumbar segment), the *M. longissimus thoracis* (thoracic segment), the *M. longissimus cervicis* (neck segment), and the *M. longissimus capitis* (head segment). But these segments all run parallel to the spine, transitioning smoothly into each other, one behind the other. The transitions of the segments are very fluid, and it is difficult to precisely separate one segment from the other. Since

these transitions are so smooth it is generally referred to as one long muscle with its origin on the pelvis and sacrum, and the insertion is at the occiput, at the back of the head. When this muscle contracts and all four paws are solidly on the ground, the dog's back will hollow slightly. When the dog's front paws are off the ground, this muscle contraction supports him standing up on his hind legs, and when this muscle just contracts on one side of the spine, it is responsible for the lateral flexion of the body to the right or left.



*The complete application of Muscle Taping on the *M. longissimus* with an additional stretch-free anchor crosswise at the primary end near the shoulder blades.*



The M. longissimus dorsi, the long back muscle (here schematically painted in a red line parallel to the spine) consists of multiple segments. The most frequent problems that can be treated with kinesiology tape are located in the lumbar and thoracic segments.

If muscles are overworked, sore, tight, or maybe underdeveloped, you can help them with kinesiology tape in conjunction with massage, stretching, or manual therapy, for example.

Application of a Muscle Taping

When taping a muscle, the muscle should be pre-stretched as much as possible. In the case of the long back muscle, the dog should be in the “sit” position and the dog’s nose should point down toward the sternum if the dog can.

With other muscles, you should also try to position the dog so the muscle is stretched as much as the dog will allow. If you are trying to tape the larger muscles on the hind legs like the *M. semitendinosus*, *M. semimembranosus* or the *M. biceps femoris*, the

dog should be lying on the side that isn’t being treated while the leg to be taped is stretched cranially as much as possible without making the dog uncomfortable.

It is always helpful to have an assistant or dog owner to lend a hand when applying a *Muscle Taping*. The helper can encourage the dog to stay in the desired position until the tape has been fully applied.

In this pre-stretched position, the needed length of tape will be measured. In the case of the long back muscle, you can see in the picture on page 69 how the tape is measured from the top of the shoulder blade, parallel to the spine, to the highest point of the pelvis. While cutting the premeasured tape into shape and rounding the corners, the dog can remain in a more comfortable position.

After cutting the tape (if the dog is quite small and/or thin, it is a good idea to split the tape lengthwise), the dog should go back to the same sitting position as before, so that the back muscle remains pre-stretched until the tape strip is fully applied. For *Muscle Tappings*, you always use the *End-to-End* technique.



- About an inch (2 cm) from one end of the I-Tape, tear the paper backing completely across and remove the paper.
- This end (primary end) will be applied with absolutely no stretch at the insertion of the thoracic segment of the *M. longissimus* at the top of the shoulder blade. Push it back slightly with a backup.
- Remove the whole paper backing until the last inch (2 cm) of the tape strip.
- Be careful not to touch the now open adhesive layer with your fingers and don't let it make contact with the hair yet.
- Hold the end of the tape strip (secondary end) with flat fingers and with a little stretch (about 10 percent

*After the clinical examination, the tape strip will be measured. The active area of the tape strip should cover the muscle belly completely—in this case, the *M. longissimus*.*

off-paper stretch) line it up along the direction of the muscle toward the sacrum, and with your other hand flat, apply the tape.

- Remove the paper backing from the last inch (2 cm) of the tape strip and apply this end (secondary end) with absolutely no stretch and a backup toward the muscle belly.
- Rub carefully but vigorously back and forth over the tape strip to create frictional heat and to activate the adhesive. After the application, let the dog stand up, lie down, or walk around.



The stretch-free primary end is positioned laterally to the spine and the tape strip is applied along the direction of the muscle.

When the muscle returns to its normal position, like standing straight, after the kinesiology tape has been applied, you can oftentimes see that there are waves in the tape strip. These waves are called “convolutions” and they are absolutely normal. In addition, these waves increase the lifting effect.



The tape is applied with a mild stretch (about 10 to 20 percent stretch) along the affected area of the muscle.



After applying the tape strip to the affected area, remove the paper backing from the secondary end, and put this end on stretch-free and with a “backup.” In this case, the long back muscle has been taped from the insertion of the thoracic segment to the origin of the lumbar segment.



Convolutions are an additional enhancement for the lifting effect. The purple Muscle Taping of the M. longissimus shows these waves very nicely.

Muscle Taping for the Long Back Muscle (M. longissimus)

Direction of the tape: Insertion to origin.

Recoil: Origin to insertion.

Effect: Support for the relaxation and stretching of the long back muscle.

Activation or Relaxation of the Musculature?

Due to the aforementioned structure of the muscle, with its origin and insertion and its ability to contract, there are two possibilities for a *Muscle Taping* application: Activation and support of the muscle contraction or relaxation and stretching of the muscle.

When the muscle is working and contracting, the muscle fibers shorten and the mobile and more distal part is brought closer to the less mobile and

more proximal part. In the case of the *M. longissimus*, the more mobile forehand is brought closer to the less mobile hindquarters.

When the muscle relaxes and the fibers elongate again, the insertion moves away from the origin. The mobile part (forehand) moves away from the immobile part (hindquarters) and the muscle stretches again.

Since kinesiology tape always recoils toward the primary end this leaves only two possibilities for the direction of the *Muscle Taping*:

Activation of the muscle (blue tape):

- Direction of the tape strip (black arrow): the primary end is located at the origin of the muscle, and the final end is located at the insertion of the muscle.
- Recoil (red arrow): toward the primary end at the origin of the muscle and along the direction of the muscle contraction.

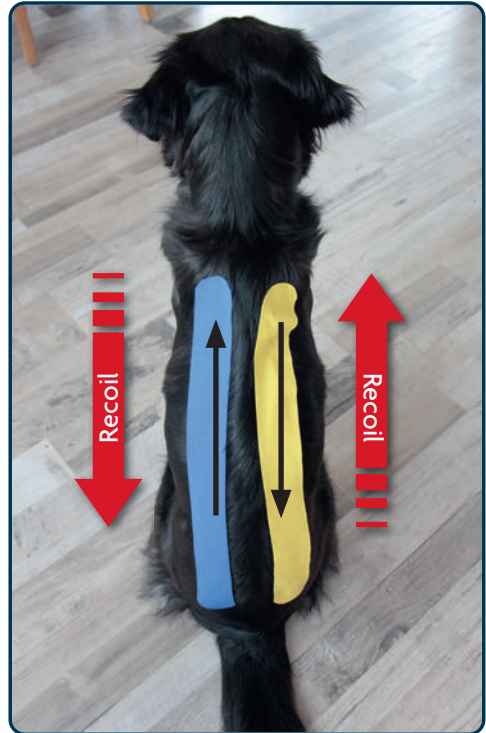
- Recoil (red arrow): toward the primary end at the insertion of the muscle and along the direction of the muscle stretching.

Even with light or medium tension in the muscles, it is better to use the activation method, because you still want to support the muscle with the tape and improve muscle activity. When the muscle is absolutely tight and hard as a rock, it is time to use the relaxation method.

Relaxation of the muscle (yellow tape):

- Direction of the tape strip (black arrow): The primary end is located at the insertion of the muscle and the secondary end is located at the origin of the muscle.

The recoil of the tape strip is always opposite the direction of the taping application. The blue strip was taped caudally to cranially and the recoil goes to the primary caudal end. The yellow strip was taped cranially to caudally and the recoil again is going toward the primary end, which in this case is located cranially.



Unilateral or Bilateral Muscle Taping

I am a big advocate of bilateral muscle taping. This means that even if the problem is only on one side—for example, a tight back muscle on the left side—I will also tape the right side of the back muscle in the same manner as the left.

In my experience, animals do not process the stimulation as logically as we humans do, and they react primarily to the stimulus of the tape. A unilateral taping application can lead

to issues of crookedness in the posture and maybe an uneven gait. For example, with horses in training, you can see the change, and riders can feel it when on the horse. This distortion is also not desirable when taping dogs, especially since it is more challenging to recognize since we don't ride them. Our goal in each treatment should be to improve the biomechanics of the animal, not to make the dog even more crooked because the muscle is only being taped on one side.



Bilateral taping application for the long back muscle. Both tape strips have the same direction of taping and the same amount of stretch. They run parallel on the right and left sides of the spine.

Caution

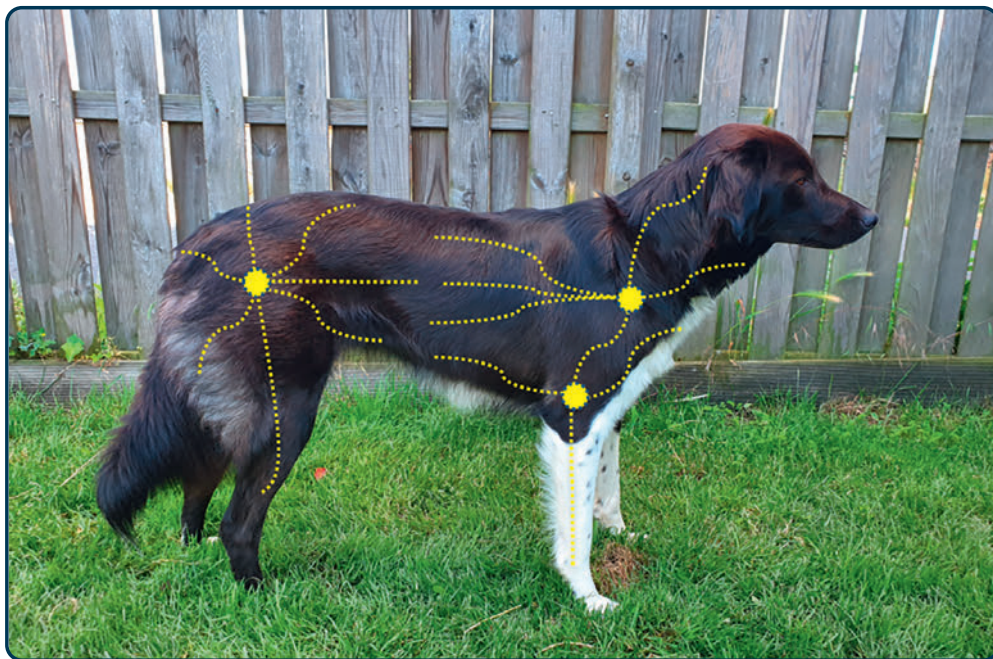
When a muscle is taped bilaterally and one of the tape strips starts to detach itself, always remove both tape strips at the same time to avoid a crooked posture or an uneven gait.

Lymphatic Taping

Lymphatic Fluid and Lymphatic System

Lympha is actually an ancient Greek word that was later transferred to Latin and means “clear water.” And that is what lymphatic fluid really looks like: a clear, yellowish fluid that

is the intermediate stage between blood plasma and tissue fluid. Delicate lymphatic capillaries absorb the free lymphatic fluid within the tissue. These capillaries join into larger lymphatic vessels and these empty into the lymphatic nodes, which are a collection point and filter for the lymphatic



Schematic drawing of the most important lymph node centers and their areas of inflow. With the help of Lymphatic Taping the reabsorption and backflow of fluid buildup to these nodes will be supported.

fluid. From these nodes, the lymphatic fluid is transported to the subclavian veins where it is reabsorbed into the bloodstream. In the picture you can see a schematic drawing of the most important lymph node areas: the axillary lymph node on the inside of the front leg and the inguinal lymph node on the inside of the hind leg as well as the main lymphatic node at the subclavian vein just in front of the shoulder blade. The lines indicate the direction of inflow for each lymphatic node.

The lymphatic fluid carries substances that can't be transported in the bloodstream. The lymph nodes not only clean and filter the lymphatic fluid but also contain *lymphocytes*. Lymphocytes are an important part of the immune system, defending the body against disease by fighting against antibodies that don't belong in the system.

Through infection, injury, and sometimes even an operation, lymphatic fluid builds up in dogs' extremities. Due to increased volume and enlarged pressure on the delicate lymphatic capillaries, these are squeezed shut and no longer able to reabsorb free fluid and move it to the lymph nodes.

In these situations, a lymphatic drainage is most helpful: a special, very gentle form of massage, which stimulates the lymphatic system and the

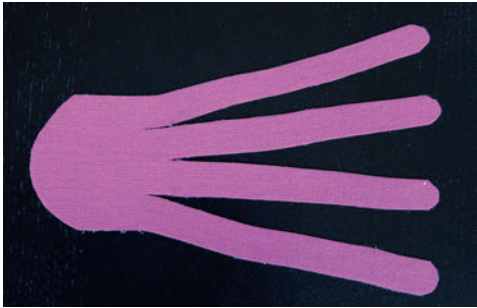
main nodes to improve the fluid movement. To further support the manual lymphatic drainage, a *Lymphatic Taping* can be applied on the affected extremity.

The Application of a Lymphatic Taping

The most important tape cut for this application is the Fan-Tape, which can be combined to create a lymphatic row or a lymphatic grid, depending on the size and shape of the swelling. The Fan-Tape has one closed end (primary end) and three to five fingers (see p. 44). The more fingers you cut for the Fan-Tape, the more surface you can cover by spreading the fingers out.

The *End-to-End* technique is used for the Fan-Tape and you always apply the closed primary end first and then one fan finger at a time.

After cutting the Fan-Tape into shape, tear the paper backing between the primary end and where the fingers begin and fold the paper backing over a little. This will help you grab hold of the fingers and the paper backing more easily and quickly when applying the tape.



For the Lymphatic Taping, the Fan-Tape is used, with its one closed end and its multiple “fingers” at the other end.



General Application of Lymphatic Tape

- Remove the paper backing completely from the closed end.
- Apply the end of the Fan-Tape at the lymphatic node pointing proximally and with absolutely no stretch.
- Take the torn paper backing of the first finger and point it distally toward the swelling.
- Since the tape comes off the paper backing with 10 percent pre-stretch, you don't need to add more than a mild stretch when the finger is applied in the distal direction toward the swelling. Or just use the off-paper stretch.
- To better apply the tape and get a good hold of the paper backing, tear it at the spot between the primary end and the fingers, and fold the paper over a bit as shown.
- The end of this finger will again be applied with absolutely no stretch.
- Use the same procedure with all the other fingers as well and spread them out generously over the swelling.
- The tape fingers can, thereby, be applied in a straight line or in a wave line. The wave lines enable you to cover even more surface.
- If it is a large swelling on the front or hind legs, it is helpful to start

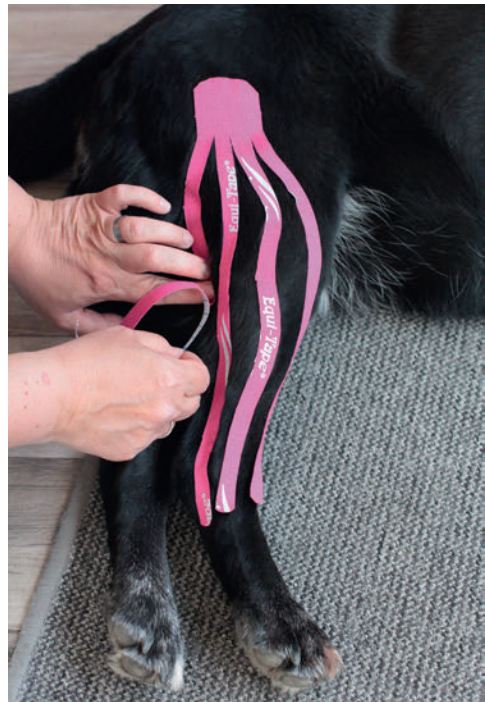
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applying the two outside fingers first and kind of framing the swelling on the right and left sides. Then you can apply and spread the middle fingers evenly over the swollen area.

- When rubbing over the tape to activate the adhesive, it is better to start from the primary end and work toward the end of the fingers. If you start at the fingers, you risk detaching the thin finger ends by accident.



Remove the paper backing at the primary end. Point this end toward the closest lymphatic node and apply it with no stretch.



The fingers of the lymphatic tape are applied with a mild stretch (about 10 percent as it comes off the paper backing) around and over the swelling in the direction of the paw.

The Lymphatic Row

The “lymphatic row” is suitable for larger dogs, and depending on their size you can apply two or three Fan-Tapes in a row. For smaller dogs, one Fan-Tape is usually enough. The lymphatic row is used when the swelling affects the whole extremity.

When applying a lymphatic row on the front legs, start at the primary lymph node at the subclavian vein just in front of the shoulder blade (bend the head and neck slightly toward the

opposite side) and work the fingers down toward the paw. Like a traffic jam, you have to clear the congestion at the beginning (lymph node), and you have to make space for the “cars” (the lymphatic fluid) to “drive on” (flow out).

When taping larger dogs with two or more Fan-Tapes in a row, it is important that the end of the next Fan-Tape is applied overlapping the finger endings of the previous Fan-Tape. You want to create a “lymphatic row” and a continuous lymphatic backflow throughout



Important for the lymphatic row: the end of the following (lower) Fan-Tape is applied on top of the finger endings of the previous Fan-Tape to ensure that the lymphatic row is continuous and there is no gap in between.

When there is a larger swelling, covering the whole extremity, multiple Fan-Tapes can be applied in a lymphatic row.



the whole extremity toward the lymphatic node.

The Lymphatic Grid

When there are swollen areas within the extremity—for example, around the carpal joint of the front leg or the tarsal joint of the hind leg—the lymphatic grid is primarily used. Instead of building a row, you take two or more Fan-Tapes and apply them at the same height. The ends are all pointed proximally toward the lymphatic node but are shifted against each other at an angle. The fingers of the different Fan-Tapes are applied crosswise over the swelling and pointing distally so that it results in a grid-like pattern. This grid should encircle and cover the swelling as much as possible.

You can also combine a lymphatic row with a lymphatic grid. Start proximally with the row and then add

For larger swellings on an extremity, you can apply several Fan-Tapes next to each other, so that they are building a grid-like pattern. The ends of the Fan-Tapes are still pointed proximally toward the lymphatic node, just at different angles.

several Fan-Tapes as a grid around a swollen joint.

This always depends on the individual situation, swelling, and also the size of the dog. The extremity of a Jack Russell Terrier is so short that you can cover a whole leg with just one Fan-Tape. For a Doberman Pinscher, you might need two to three Fan-Tapes.

I recommended securing all the thin and delicate finger endings of a *Lymphatic Tape* with an anchor (this anchor can be seen in light blue in the picture on p. 80). Anchors



are single I-Tapes that are applied around the extremity and over the finger endings without any stretch, to cover, secure, and protect the finger endings of the Fan-Tape without compromising or restricting the actual taping application. It is, therefore, very important to always apply these anchors without any stretch at all (see p. 49)!



To secure the taping application and especially all the thin and delicate finger endings, you should cover and protect them with a stretch-free anchor.

Lymphatic Taping

Direction of tape: from the lymphatic node toward the swelling.

Recoil: from the swelling toward the lymphatic node.

Effect: supporting the backflow of fluid buildup in the extremities toward the lymph node.