

# **The Mastiff and the "Golden Years"**

**(Part 1)**

## **By Robin M. Smith, DVM**

### *The Senior or Geriatric Mastiff and their needs*

Someone suggested to me that I should write an article on older Mastiffs and their care. I had not really thought of that before because personally, I had not dealt with that concept UNTIL now... Ranger is 7 years old now, as of August and I see changes in him that I have not had before and I have had to deal with problems I have not had to before... so I think it is a good idea to address this issue.

If it were a PERFECT Mastiff world, which I wish it were... our Mastiffs would live forever. Unfortunately, our Mastiffs don't... and actually die sooner because they are a giant breed. We see a touch of gray on the chin or muzzle, sometimes as early as 3-4 years of age. We notice all of a sudden one day, there is a gray tinge in their eye. Or we notice that our Mastiff cannot get up and down off the bed as they used to. In practice, I see a lot of older dogs because, we, as owners are caring for them better and therefore they are living longer. But what do we need to know in order to help our Mastiffs as they age? I hope to help you with that in this article.

First off, all Mastiffs are different and will age at different rates. Just as in humans, some look old at 4 years of age and some do not look old until 7 years of age. We must learn to deal with the symptoms of aging actually before they occur. In order to do that, our Mastiffs should have regular veterinary check-ups. In these check ups, your veterinarian should, starting annually, then semi-annually, do a complete blood work-up and urinalysis. The complete blood count helps in the diagnosis of anemia, infection and bleeding problems. And sometimes it can help in diagnosing cancer. It provides insight into the immune status of your Mastiff. The serum chemistry profile is used to assess changes in the function of the liver, kidneys, pancreas and other organs. The urinalysis will be checked for evidence of infection, urinary or prostatic (in males) and to assess kidney function.

The other tests I suggest in the older Mastiff are having radiographs (x-rays) taken yearly and perhaps an ultrasound. I have found that many tumors in the abdomen and chest can actually be taken care of if diagnosed early. But our Mastiffs are very stoic and do not let us know there is a problem until the problem is bad. So, radiographs and ultrasounds can tell us if there is a splenic tumor or kidney tumor or other problem that needs to be addressed. Or if there is an enlarged heart, or fluid in the chest cavity.

From experience, I can tell you that a Mastiff is hard to examine completely. I can listen to the chest and feel the abdomen, but they are so big, you cannot assess some of the things you need to. I, even being experienced with Mastiffs, must obtain radiographs and ancillary tests to help me. For instance, a Mastiff MUST be standing to assess the heart. If they are lying down, you will detect what you think is a heart murmur... this is the heart rubbing on the ribs, not an actual murmur. The other hard area to assess for me is the males Mastiffs prostate. I can feel part of it rectally, but unless the Mastiff is a small Mastiff, one cannot feel all of the prostate, so I use

ultrasound to evaluate it. As the Mastiff gets older, insist that your veterinarian perform these tests to make sure they are healthy. Most veterinarians will be happy to help you and your Mastiff. If your veterinarian tells you that they feel that by examination your Mastiff is in great shape, well, still ask to have some minimal testing performed.

### Commonly Encountered Geriatric Diseases in Mastiffs

The following is a list of common disease processes I have encountered in older Mastiffs. While I know that there are a lot of disease that older dogs encounter, the following are ones that I have found particularly in older Mastiffs.

- Degenerative Joint Disease /Arthritis
- Urinary Incontinence
- Prostatic Disease
- Obesity
- Cardiovascular Disease (Heart Disease)
- Cataracts
- Cancer
- Dental Disease
- Diabetes
- Renal Disease

### Degenerative Joint Disease/Arthritis

This is probably the most common problem encountered in our aging Mastiffs. And sometimes it is encountered too frequently in our young Mastiffs. Hip dysplasia is devastating. If the Mastiff lives long enough, they will have pain involved with the hips and the arthritis. Elbow dysplasia is the other arthritic condition that causes problems. Even if your dog has no dysplasia and has been a show dog, just the natural aging process leads to decreased joint functioning, as it does in humans. Our Mastiffs are so large, that we really need to deal with these conditions early, and not wait until later.

Osteoarthritis, or degenerative joint disease, is a progressive deterioration of the synovial joint and bone structures caused by abnormal stress or injury. It is characterized by joint pain, inflammation of the synovial membrane and loss of the articular cartilage as a result of breakdown of the proteoglycans in the cartilage matrix. As the disease progresses, synovitis and joint enlargement occur, leading to decreased joint motion and abnormal changes within the joint. Space between the collagen fibers increases, and enzymes such as collagenase and gelatinase are released, causing further deterioration. Release of free-radical mediators also contributes to major cartilage degradation. The severity of the disease appears to correlate with the loss of glycosaminoglycan in the joint and surrounding tissues.

Basically, what all of that is saying is that the joint is losing its mobility due to loss of fluid and the concurrent inflammation that is going on due to the disease process. It is a normal aging process but in our giant breeds, we find the process is accelerated due to their size and weight.

So, effective treatment of the affected joints should center on decreasing inflammation, enhancing cartilage synthesis by the cartilage cells, and reducing the degradation of cartilage by the enzymes that are released, thereby attempting to restore as much joint function as possible.

There are many ways to deal with degenerative joint disease or Osteoarthritis. The following will outline these.

1) Chondroprotective Agents: These agents have recently been promoted for the management of degenerative joint disease in older dogs and cats. They are often marketed as nutraceuticals, or food additives. They are available in powder or compressed tablet forms and contain various combinations of glucosamines, glycosaminoglycans, chondroitin sulfates, or other ingredients and are theorized to help support repair of the articular cartilage by providing the building blocks for its repair.

Cosequin: A combination of glucosamine, purified chondroitin sulfate and manganese ascorbate. Is marketed as a nutraceutical and contains precursors of the cartilage matrix. There are no significant side effects reported with its use.

Glycoflex: Has freeze-dried Perna canaliculus mussel, brewer's yeast, and alfalfa in it. It is less expensive and is very palatable. The exact mechanism of how Perna works in controlling and preventing arthritis has not been clearly shown. The unique combination of complex proteins, glycosaminoglycans, amino acids, nucleic acids, and naturally chelated minerals may work to give a synergistic, biologic effect that helps repair articular cartilage and prevent further deterioration. It may also enhance the regenerative capabilities of the cartilage cells. This product has been shown to apparently improve joint lubrication, ease joint pain and improve mobility and range of motion in affected joints.

Adequan: Is used to form proteoglycan aggregates that provide the backbone for collagen formation in joints. The products found in this drug are theorized to provide replacement material for cartilage growth, to protect the cartilage cells, and to stop inflammation. This product must be given by injection, usually in the muscle. It has a low level of side effects and can be used in a variety of conditions. When I have used it in the Mastiff, I give 250 mg. Weekly for 3 weeks and if no improvements then stop. If there is improvement, I will continue weekly injections for a total of 6 weeks and then put the dog on Cosequin or Glycoflex for protection of the joints.

There are many others on the market, as shark cartilage, etc. I have used all of these products and have found them useful in certain cases. If you do use these products, and if all instructions are followed, you should expect to see favorable results in 3-4 weeks of starting the product and definitely in 6-8 weeks.

Some people will use these products starting at an early age in their Mastiffs. I think this is the ideal way to use these products in the Mastiff. I think that way the dog has the advantage of the product being available to their body when they may need it and not waiting until they do need it.

2) Non-Steroidal Anti-inflammatory Drugs: These are the aspirin like drugs that have anti-inflammatory properties. They work by prohibiting some of the molecules that cause inflammation.

Aspirin: This is still the most commonly prescribed drug in dogs and in people to control pain. I use it a lot in Mastiffs but if you use it at the dose that is stated for dogs, or 5 mg./ lb. is too high in my opinion. I give it at a dose of one 325 mg. (or 5 grain) aspirin (preferably buffered) per 100 lbs. So, for instance, Ranger is 175 lbs... I give him 1 ½ aspirin twice a day. Yes, that is a low dose but I find that Mastiffs are very sensitive to aspirin. I tend to use the buffered or enteric coated aspirin. Make sure it is 5 grain aspirin and not "extra strength". I also make sure that the aspirin is given with food. And if the dog vomits, I STOP the aspirin. Aspirin, as all of these drug can, may cause stomach ulcers as they do in people and it is harder for us to detect these ulcers in animals until it is too late. So, vomiting is a first sign to watch for.

Phenylbutazone: This is a drug used to control inflammation. It is known to be toxic to cartilage forming cells, so long term use in dogs is not recommended. I find that this drug is too toxic to the lining of the Mastiffs' intestinal tract that I never use it at all and do not advocate its usage in ANY situation.

Rimadyl: The active drug in this compound is, carprofen. This drug is an excellent anti-inflammatory drug. I use it a lot in older Mastiffs and my dog, Ranger is on it right now. BUT, I must tell you that I dose it different in our giant breeds than what the bottle dose is. I use it at ½ mg./lb. (or half of the bottle dosage) initially. For instance, Ranger weighs 175 lbs. I started him at 75 mg. twice a day. If I had used the bottle dosage I would have had to start him at 175 mg. twice a day. I find the Mastiff is very sensitive to the higher doses and will start at the lowest dose possible and go from there. Does that mean I will not use the bottle dose? No, I will if I have to work up to it. I just will not start them at that dose. Right now I control Rangers' limping with ONE 75 mg. Tablet of Rimadyl per day. And make sure you give it WITH food.

Rimadyl has gotten a lot of flack due to some apparent side effects to the liver in some dogs. I think any drug can cause problems and no drug is totally safe. I would rather use it in short-term stints, but if used chronically, I recommend a chemistry panel to assess liver and kidney function every 6 months. So, use with caution, but if your Mastiff needs this drug, it can work wonders.

Ibuprofen: I do not use this in Mastiffs or other dogs at all because the dose that you have to use to help your Mastiff may exceed the toxic dose. Do not use.

Derm Caps: The omega 3 fatty acids are very potent anti-inflammatories and may help keep the pet more comfortable.

Nupro -an all natural dog supplement: I was introduced to this product through an alternative medicine veterinarian and Ranger is on it now. It is high in vitamins, minerals, enzymes, amino and fatty acids. It provides the necessary raw ingredients (missing from cooked and processed dog foods). It is suppose to cause increased energy and have blood-building capabilities. It has anti-inflammatory properties. It helps with digestion and relieves gas (That's a GOOD thing... as Martha Stewart would say).

I have been using it for about 2 months now with Ranger and I do think it has helped. He seems to just feel better.

Comfort: This is an antioxidant that has anti-inflammatory effects due to its free radical scavenging. I can't attest to this product, but I do feel that many people swear by it in their dogs. Again, it can have no side effects.

#### Exercise and Arthritis:

I get asked many times about whether the Mastiff should be exercised if there is an arthritic condition. I would say that this depends on how bad it is. I think that one should institute a walking program with your dog to try and keep the muscle strength. I do not think that any type of strenuous activity should be done. And the exercise should be started at a slow pace and gradually worked up. I take Ranger out with me when I work outside and he will run around at his own pace. But I do make sure he gets out regularly.

I also believe swimming is great in maintaining the mobility of the joints. Unfortunately, Ranger does not like the water too much. Again, activity should be increased gradually.

#### Alternative Therapy and Osteoarthritis and Aging:

For many years, I would not allow myself as a veterinarian to believe in alternative methods of veterinary medicine. I felt that it was a bunch of "voodoo" type medicine. I knew it worked occasionally, but I felt that my scientific approach and medicine was more appropriate. UNTIL one day, I came home and Ranger was showing signs of a lower disk problem in his back. This was about 4 months ago. I knew that he had a spinal cord compression because he was showing all of the neurological signs. I had x-rayed him previously and was very suspicious of an area of spondylosis between his last lumbar vertebra and his sacrum. He walked like he was drunk. He would drag his back paws and actually drag the top of the paw. He was uncomfortable. I immediately gave him an intravenous injection of high dose steroids, to decrease the inflammation and I started him on prednisone to decrease the inflammation. Well, the second day he was better but his attitude had changed. He was panting uncontrollably... he was urinating every 5 seconds... he was drinking gallons of water (even more than a normal Mastiff). I knew it was the effects of the steroids. I knew that people had told me about their Mastiffs reacting this way and I have just shunned it saying that it will pass. Well, it is different if it is your dog (how else do you think we really learn?). I immediately stopped the steroids. You must realize that you cannot stop steroids without speaking to your veterinarian, it all depends on how long they have been on them, but stopping them too soon can cause serious health problems. Anyway, I stopped them and it took several days for Ranger to start acting normal. He still had the back problem, just not as bad. I knew that I did not want to subject him to surgery or a myelogram (where they inject dye into the spinal canal to see where the disk problem is) because I worked at a referral practice where we saw a lot of neurological surgery cases. And I promised that I would never put Ranger through one of those back surgeries. Now, don't get me wrong... some things may be worth doing it. I just know that in giant breed dogs, back surgery is very traumatic and unless I had a very young Mastiff, I personally would not put them through the surgery unless I knew that they had an excellent chance of recovery. So... what to do? I decided to take him to a friend of mine's holistic veterinarian. I took Ranger and the veterinarian suggested diets for him and gave him some homeopathic medicine and did acupuncture on him. Well, right after the acupuncture,

Ranger was full of himself. He ran around and started jumping up and actually jumped into my truck to go home. I could see that he felt better immediately.

Acupuncture is the stimulation of specific points on the body that have the ability to alter various biochemical and physiologic conditions to achieve the desired effect. It is a means of the body helping the body heal itself. It has been used about 4000 years on animals, as well as humans. In fact, it is still the treatment of choice for one quarter of the world's population. Acupuncture does more than relieve pain. How it works depends on the condition being treated and the points used. Acupuncture increases circulation, causes a release of many neurotransmitters and neurohormones (some of the "natural occurring pain-killing hormones"), relieves muscle spasms, stimulates nerves, and stimulates the body's defense systems.

It was interesting to watch as the veterinarian placed needles all over Rangers' legs and how Ranger just stood so still. He really relaxed after all of the needles were in place. So, it is not a painful procedure.

Chiropractic manipulation is also a field to examine for the treatment of Osteoarthritis, and although I have not been involved with this particular treatment, I know of a couple of veterinarians that are practicing this and find it very rewarding. Chiropractic medicine focuses on the neurological mechanisms and the biomechanics of the spine. So, anything that can cause malalignment of the spine can be treated with chiropractic manipulation. For example, a broken bone can not directly be helped with chiropractic medicine, but because the broken bone will cause the animal to walk differently, there will be an alteration of the spine which CAN be helped with chiropractic manipulation. I would caution you to only used approved veterinary chiropractic doctors since there are specific differences in our Mastiffs and humans.

Magnetic Field Therapy is another type of therapy to help with arthritis. It has been used in humans for many years and even in horses, but is becoming more popular with our dogs because it is easy to do. Magnets are thought to work by means of magnetic lines of force. Magnetic therapy can be used alone or in conjunction with other modes of therapy. Their only contraindications are on the use of infections, cancerous growths, fresh injuries or pregnant females.

Herbal And Botanical Medicine is another interesting and fast growing method to deal with musculoskeletal conditions, like arthritis. A few of them are the following:

1. Cayenne: When applied topically, it can reduce the pain of arthritic conditions.
2. White Willow Bark: Has analgesic, anti-inflammatory, antipyretic (reduce fever) and disinfectant properties. It is used to treat muscle pain, arthritis, headaches and fevers.
3. There are steroids in akebia, alisma, licorice and poria that have anti-inflammatory effects.
4. Alkaloids from the Berberidaceae are used to treat inflammation.
5. Corydalis, menisperma, and sinomenium are used to treat pain, especially in arthritis.
6. Ginsenoside Ro, isolated from the roots of Panaz ginseng, reduces paw edema in rats.

While there are many more that can be incorporated into the therapy for your dogs, please make sure that you consult your veterinarian, one that is versed in non-traditional medicine before giving your dog any of these supplements. Even though they do good, they can possibly have side effects.

According to Traditional Chinese Medicine, pain is caused by a blockage of Qi and blood in the channels and energy pathways of the body. I do not know much about this type of therapy but I do know a couple of my veterinary friends who are very much involved in these type therapies. I know that certain combination of herbs can be helpful in reducing pain associated with Osteoarthritis.

Ranger is doing well at this time. He gets acupuncture occasionally and he is on some herbal supplements. He gets regular exercise and is fed a high quality diet. There are a lot of things that can be done to help our older Mastiffs and their degenerative arthritic conditions.

In the next issue, I will address the aging Mastiff and some of the other conditions, how to identify them and what can be done to make their lives comfortable for as long as we can. I am one that truly wishes that our Mastiffs could be by our sides for longer than they are... and anything I can do to make that happen, well, it makes being part of the Mastiff world a wonderful thing.

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