

THE HAIRY TRUTH ABOUT HAIR

© By Nancy P. Melone, Ph.D.



Last summer I attended a major dog show. Not surprisingly, the excessive heat during the days before the show prompted several exhibitors to complain that their dogs were “naked” and had shed their coats. Several people described techniques that they used to keep their dog’s coat from completely falling out. The techniques ranged from bathing the dog in ice cold water to applying various commercial products to the coat.

As near as I could tell, none of the techniques had any scientific basis. I doubt that they were effective, although some people insisted that they were. Like these dog show exhibitors, the average dog owner learns to expect shedding as a seasonal annoyance but probably doesn’t really understand what causes it or what, if anything, to do about it.

Although it seems that your dog loses his coat all at once, shedding is really a gradual process where one coat merges into another. In this way, the dog is never without substantial covering to protect him from extreme temperatures or the sun’s harmful UV rays. Folklore abounds on what triggers shedding and how to prevent or minimize it. Here is the science behind shedding.

Genetics to some extent controls shedding but the environment also plays a major role in how those genes are expressed. Many people think that warm temperature triggers shedding but researchers have demonstrated that hair is not shed only during or just after the period of high temperatures but is shed in a seasonal pattern depending on the length of daylight. Coat growth and shedding are considered to be phototropic

(i.e., triggered and controlled by the amount of light).

Anyone who has lived with unsprayed female dogs knows, too, that hormones play an influential role in shedding. In addition to the normal (often twice a year) seasonal shedding, unsprayed females will also shed on or before the times they are receptive to males and able to conceive. Indeed, the research indicates that ovarian hormones trump the influence of even light (photo period) and seasonality when it comes to shedding! So, if mammary cancer and pyometra weren’t enough to convince you to spay your female, the tumbleweeds of hair might be!

Housedogs shed at different times than dogs that remain outdoors all the time. Housedogs with hair of normal length generally shed in the spring and the fall. In spring, for a dog that is groomed daily, shedding lasts about 5 weeks. Growing a new coat varies by breed. The average dog takes around 4-5 months, but some breeds can take up to 18 months to come back into full coat.

Coat types vary, too. For example, Poodles and some terriers have nonshedding curly coats. Nonshedding is a bit of a misnomer since the hair does fall out, but instead of falling to the ground as it does with double-coated dogs, it tends to collect in mats that remain on the dog’s body unless removed. Our Bernese Mountain Dogs have double coats consisting of long coarse guard hairs that serve to protect the dog from the elements and a fine, dense undercoat to keep it warm. When shedding occurs, the outer coat can turn reddish and dull. The undercoat often falls out in patches, giving the otherwise beautiful Berner a moth-eaten look.

Understanding shedding involves understanding hair growth. The process of growth and shedding takes place over three stages—a growth cycle (anagen), a transition cycle (catagen), and a resting cycle (telogen). New hair growth occurs during the growth stage. During the transition cycle, the old hair, now called a “club hair,” separates from the base of the hair follicle, and the hair stops growing. This club hair begins to work its way out of the hair follicle during the resting stage. A caring owner can accelerate the removal of the club hairs by brushing the coat daily. If the club hair is not removed by brushing, then during the early part of the growing stage the new hair

Many people think that warm temperature triggers shedding, but researchers have demonstrated that hair is not shed only during or just after the period of high temperatures but is shed in a seasonal pattern depending on the length of daylight.

will push the old club hair out of the follicle to make room for new hair growth. Don't be upset if during this period of shedding (resting cycle and early growth cycle) the coat appears very dull or takes on a reddish color. This appearance is normal.

When your dog begins to shed, the best thing to do is to remove the dead hair with a daily brushing. If you use a brush or comb, make sure that the bristles or teeth are of appropriate length for the coat. If they are too short, you will leave the mats behind in the undercoat. If they are too long, you may injure the dog's skin. Give him a bath to further loosen the dead hair so that it will be easier to remove. Always brush the dog before bathing. When the hair is completely dry, brush or comb again.

Mats typically form around the ears, armpits, and rear and groin areas. These are places where the hair is usually finer and softer. If you find a mat that is

difficult to remove, apply coat conditioner for several minutes to the area. This closes the barbs on the hair shaft, making the mat easier to remove. Once the hair is well hydrated, then use your fingers to untangle the mat. Burrs obtained on walks in the woods can often be removed by spraying non-stick cooking oil to the area in which the burr is embedded.

Notwithstanding the information presented in this article, there is considerable variation in the manner in which dogs shed—even among dogs of the same breed, living in the same household, and eating the same foods. So, if all the dogs in your household happen to shed at the same time, you should probably attribute it to luck and nothing more! Similarly, if your dog has a dog show next week and is “blowing coat”—forget the cold bath—you will probably have better luck with Elmer's Glue!

Special thanks to Bob Seaver for allowing me to use his cartoon in this article.



Photo: N. Melone

