

Why does the dog have a patchy re growth?

As groomers its not uncommon to have dogs coming in for grooming with a patchy regrowth of the coat – its sometimes even shorter in areas compared to when the dog went home the last time . The owner might question you and accusing you of causing the problem.

But its not our fault – it's the nature of the coat that play tricks with us.

I will try to explain what Is happening and why -

There is primary two types of hairs that makes up the coat – guard hairs and wool/undercoat .

(Dogs also have tactile hairs – what we usually call whiskers)

The guard hairs can be of different texture depending on the breed of the dog. And the dog can have different types of guard hairs on different body parts – as collies for example that have short guard hairs in their face and on the part of the legs and then long guard hairs on the body.

The wool is shorter and softer in texture and mostly look the same all over the body.

If we start with the basic – What is a double coat ?

Every breed is in fact double coated – all dogs have a shorter woolly undercoat to keep them warm and stronger longer guard hairs that is aimed to protect the undercoat from being wet and dirty. But thru selective breeding we have changed the coat in some breeds and it can now days be hard to see the difference between the wool and the guard hairs – as in poodles for example. We have also aimed for less undercoat in some breeds and they can for the naked eye appear as single coated – yorkies is one of them.



Guard hairs on a poodle

Spaniels ,terriers ,schnauzers all have a typical “ double coat” that works just like nature intended – strong shiny guard hairs that protects a short thick wool that keeps them warm – but they are not for some strange reason included in the term “ double coated” in the discussions.

The breeds that traditionally are classed as “double coated” in grooming terminology are the ones that have a longer wool and longer guard hairs – but there is still a clear definition between the wool and guard hair and the hair lays down. They are seldom styled – most of them are left natural and just get a tidy up. Typical example are Golden retrievers , Tibetan spaniels and New foundlands . Included in this group is the “Nordic type” breeds as well – dogs that have a spitz type coat with thick short wool and longer stronger guard hairs and both the wool and guard hairs are standing out from the body rather than laying down. The naming Nordic type comes from the fact that most of them originates from cold climates – Siberian Husky , Norwegian elkhound and Samoyed is some of them.

Now when we have established what a double coat is – let’s look at how the coat works.

As mentioned before – all dogs have a double coat – wool and guard hairs. They share the same hair follicle – but have two separate growth cycles. The cycles are run by several factors as hormones, temperature, daylight, nutrition ,stress and genetics

There is 4 stages in the growth cycle

Anagen or Growth Phase

The anagen phase is the first phase of new hair growth. Dogs that do not tend to shed heavily have a longer anagen phase. Dogs that continuously shed have shorter anagen phases. The amount of time the hair follicle stays in the anagen phase is genetically predetermined. Poodles for example spend almost 98% in the anagen state – their coat grows more or less constantly. Other breeds with short hair spends only a short time in this phase.

Catagen or Regressing Phase

The catagen phase is the transition phase. The catagen phase begins when the cell creation signals to stop. Hair stops growing during this phase as the outer root sheath attach to the hair.

Telogen or Rest Phase

Telogen is a rest period between the catagen and anagen phases. This period varies depending on the type of coat the dog has – in most breeds this is the longest period in the cycle. Breeds with a “Nordic” type of coat – as Huskies, Elkhounds can spend several years in this phase. This is nature’s way of using the nutrition/energy in a good way – in a cold climate you need the energy to keep you warm – not to grow coat.

Exogen or Shedding Phase

The final phase, exogen, is the shedding phase. This phase occurs when the hair falls out and the follicle moves back into the anagen phase. The length of this phase depends on the season .

A new phase have lately been introduced when we talk about coat growth phases – “**kenogen**”: It applies to hair follicles that have passed the telogen stage, lost their hair fibre (exogen), and remain empty for a certain time before a new anagen phase is starting.

(The Hair Follicle: A Comparative Review of Canine Hair Follicle Anatomy and Physiology . Monika M. Welle and Dominique J. Wiener ,2016)

The hair follicles are all in different stages all over the dog – some are resting – some are preparing to shed –some shed and some are creating new hair. There is a practical reason for that – creating new hairs demands a lot of nutrition so if all hairs fell out at the same time there would be a huge amount of nutrition needed to create a full coat again – and its going to be tough to fill that demand.

But if some hairs are resting while others are created the nutritional demand will be much lower. (approx 30% of the nutritional intakes goes to the skin and hair – but as this is the less important part of the body organs it gets the left overs after the heart,lungs , brain and other organs have had their share)

We would also lose the purpose of the guard hairs if they all fell out at the same time – that would leave the dog without a “weather shield “ and exposing the wool to the elements

As I mentioned above – some breeds guard hairs can be in the resting phase for 4-5 years – while the undercoat usually have a 6 month cycle on most breeds –they shed and grow new undercoat twice a year as the undercoat is there to keep them warm in the winter and gone in the summer to keep them cool .

During spring they shed the thick winter wool and set a thinner summertime wool and then in the autumn is time to shed the summer wool and set a thicker winter wool again.

The shedding of the wool is much more synchronised and usually happens all over at the same time – at least it feels like that when it happens

When we clip a so-called double coated breed there is a high risk that the guard hairs wont grow back for a long time and the dog will look really stupid during that time. It all depends on where in the growth cycle the hair is when we clip the dog. It can grow back just fine but in worst case scenario it can be in its start of the resting phase and it will be 2-3 years before all hairs are out in normal length. Or the dog is elderly and the body decides that the nutrition is needed for more important things than hair....

A lot of elderly dogs also suffers from medical problems and that will also affect the growth as the body needs the nutrition to battle the sickness – not to create hair.



Patchy re growth of

the guard hairs on a collie – you can see how there is mostly wool and then single guard hairs here and there .

This dog is clipped with a 7F roughly 3 times per year – he mostly looks like this when coming in for his groom – but every second year his coat is back to normal.



Patchy regrowth of wool on a collie – you can see the new guard hairs coming up in the short area.

And it's sometimes an underlying medical problem that suddenly gets visual when you clip the hair. There are medical conditions that cause the hair follicles to go into a permanent resting state. You won't see it until you clip the dog as the hair isn't growing back – but it's not the actual clipping that caused it – it just made it visible.



One of them is a hair follicle disease called Alopecia X that causes the hair follicles to go into arrest and sometimes it won't be noticeable until the dog is clipped. Affected breeds are commonly Pomeranians, Chows, Keeshonds, Samoyeds, Huskies, and miniature poodles. Gradually progressive, symmetrical, non-pruritic, and non-inflammatory hair loss on the trunk, tail, thighs, and neck which spares the head and front legs. Hair loss initially involves the guard hairs, leaving a woolly puppy coat. Exposed skin may become darkened and scaly. It is believed to be caused by a hormonal problem.



A similar condition is Flank Alopecia – that’s when the dog gets hairless patches on the flanks on each side of the body. Its usual seasonal -so one of the names is Seasonal Alopecia.

The body can also decide to put the hair follicles in a permanent resting phase when we clip them short . This is mostly common in the ” nordic type” of breeds – but it sometimes occur in other breeds as well. The cause of this is still not known – one of the theory’s is that the cooling of the skin when the hair is gone gives a signal to the body to reduce the blood flow to the skin to keep the core heat and that affects the hair follicles growth cycle. Another theory is that hormones is disrupting the growth cycle. (A Colour Handbook of Skin Diseases of the Dog and Cat UK Version, Second Edition,Patrick J. McKeever, Tim Nuttall, Richard G. Harvey)

It doesn’t matter what tool you use when you clip the hair – the risk for negative effects will be the same.

But the shorter you go – the higher the risk.

And remember that this can happen to other breeds beside the ones we call “double coated” – but the problem is more common in them .



Patchy regrowth on a spaniel – this is common in spaniel type of coats (springer spaniel,cavalier ,cocker spaniel) when the dog gets older or have a medical condition.

Thyroid problem is a common cause for this type of patchy re growth. Lack of thyroid hormone delays the start of the growth phase and this area would be the first where they get new hairs .

So its always advisable that a dog that have this type of lack of re growth have a check up by the vets.

What can we do to prevent the patchy regrowth or treat it once it occur ?

Its not much we can do to prevent it. Especially if its down to medical conditions.

But there is a couple of things that can minimise the risks if it's a healthy dog:

Don't scalp the dog – try to leave at least 1 cm so the chilling effect of the skin wont be so drastic.

Once you have clipped the dog – use a de shedding tool – like a Furminator to remove all dead hairs .That will

keep the growth cycle active as it mimics the natural shedding.

Once the hairs starts to come back – wash and brush the dog on a regular basis to avoid the compacted undercoat. And again – use the de shedding tool to remove dead hair.

I find that the undercoat sometimes feels like Brillo and its hard to comb. But use a light silicon-based rinse/conditioner or a keratin-based conditioner when you wash it to soften the hairs and give them a bit of shine. That will keep the more separated and easier to brush/comb out.