

# Pet Hair CONDITIONER Basics

*What to Look For*



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[www.bestshotpet.com](http://www.bestshotpet.com)



# How Cosmetology Defines HAIR CONDITIONER

A conditioner is anything that improves surface quality, corrects or prevents further surface damage to hair



Here Is Why We  
Should Condition Every  
Coat...



Shampoo (-) and Conditioner (+)  
cannot feed, resuscitate or enliven hair



**HAIR**  
is not alive!

Nothing more than dead proteins,  
mainly keratin

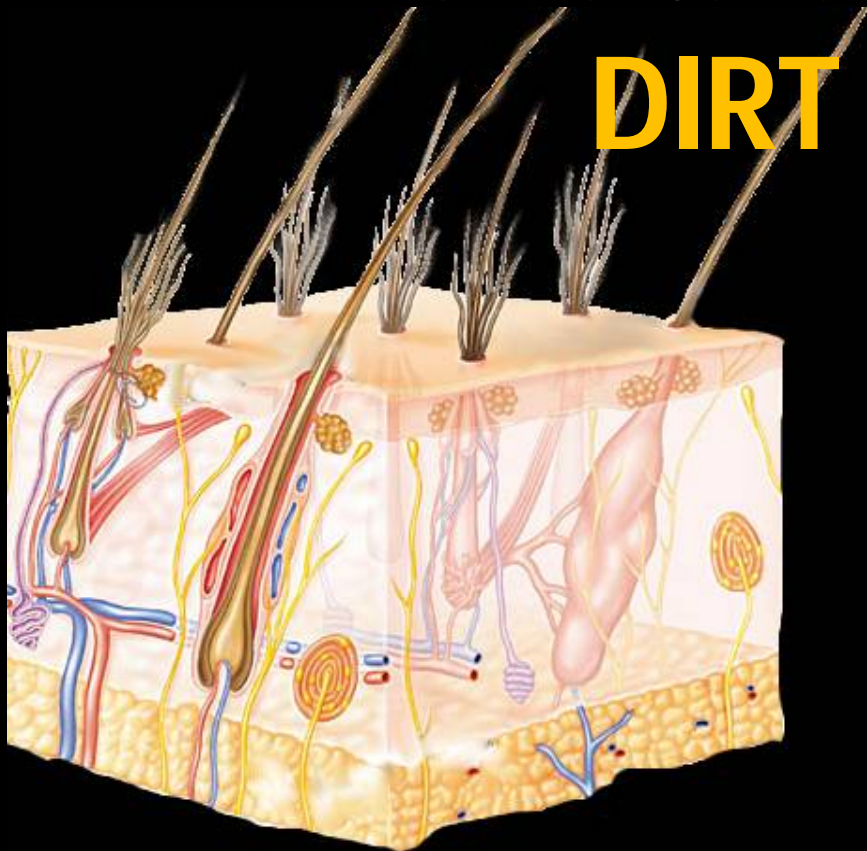


Shampoo cleans hair by removing **sebum**, debris and build-up.

Sebum is a thin oily layer produced by the skin's sebaceous glands to coat and protect the hair

Unfortunately it's a virtual

**DIRT MAGNET**



### Anionic (-) vs. Cationic (+) Surfactants

(-) Detergents bond to oils, but repel from the hair and skin while in water.

(+) Conditioner replenishes sebum depleted from the hair by environmental factors (sun, dust, pollutants, etc.) and when washed away during the bathing process itself.



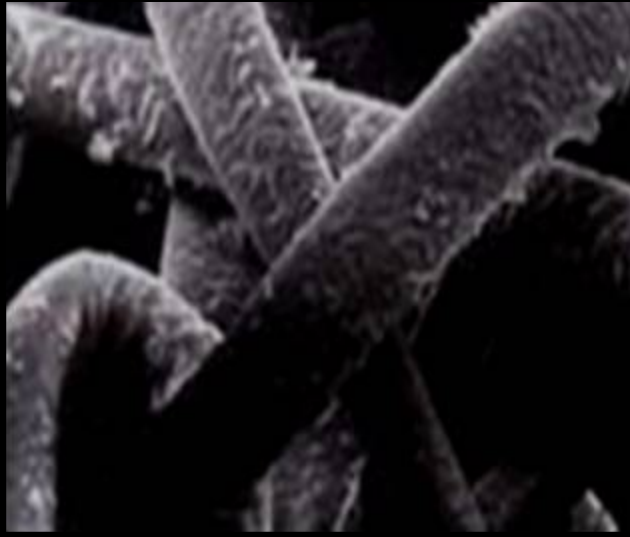
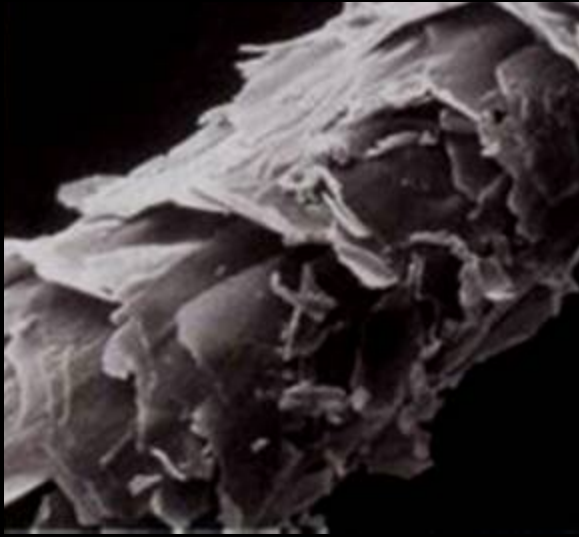
- Manipulating the hair's cuticles is essential to proper hair maintenance, extending manageability, and producing one's desired coat finish
- Conditioners play a key role in helping us manage a specific coat types **Porosity**



### What is Hair Porosity?

It refers to how open the cuticles along the hair strands are, and determines how well the hair strands retain moisture.





## What Conditioning Will Do:

- Act as a superior **sebum replacement** that repels oil, rather than attract
- Bolster **tensile strength**, protecting from further brush and tool damage
- Manage Porosity by **closing cuticles**, rehydrating & extending manageability
- Fill-in and repair damaged coat and split ends
- Enable Force Dryer to be one's **virtual brush**, reducing coat damage & effort
- Safely release tangles, mats, and shedding undercoat in the tub & with dryer
- Decrease drying time and reduce static
- and so much more!



# Conditioner Types (+)



## 1. Quaternary Ammonium Salts (Quats)

Nitrogen molecules with 1 or more long chains of carbon atoms

*Examples: Cetrimonium Chloride, Guar Hydroxypropyltrimonium Chloride, Behentrimonium Methosulfate, Behentrimonium Chloride, Stearalkonium Chloride ...*

## 2. Fatty Alcohols

Fatty Alcohols have 10 or more carbons. NOT like Ethanol or Isopropanol (only 2 carbons)

*Examples: Cetyl Alcohol, Cetearyl Alcohol, Lauryl Alcohol, Glycol Distearate ...*

## 3. Silicone Polymers

Repeating silicon and oxygen atom units

a. Dimethicone

b. Amodimethicone

c. Cyclomethicone

d. Dimethiconol

e. Phenyl Dimethicone

f. Dimethicone Copolyols

g. Quaternized Silicones

## 4. Other Conditioning Polymers

Organic Polymers: *Cellulose, Guar Gum, Starches, Hydrolyzed or Quaternized Proteins ...*

Synthetic Copolymers: *Polyquaterniums, Amino Modified Silicone-Polyether Copolymers, Amino Modified Organo-Silicone ... (too many to list)*

## 5. Old School Natural Fatty Acids

*Examples: Shea Butter, Coconut Oil, Aloe Vera, Jojoba Oil, Vegetable Glycerin, Olive Oil, Tea Tree, Argon Oil, Lanolin ...*

**NOTE: Combinations work best when formulating conditioners**



# A more detailed summary of Hair Care Silicones



**Dimethicone:** Also referred to as polydimethylsiloxane (PDMS), is the most commonly found silicone in pet grooming products to ease combing and brushing.

**Dimethiconol:** This silicone group can be combined with other molecules, such as the amino acids, fatty acids or other compounds, to form useful derivatives as cosmetic ingredients with superior lubricity and conditioning effects. ie. dimethiconol panthenol. They are often blended with other substances to resolve formulating difficulties found with using just dimethicone.

**Dimethicone copolyols:** Water-soluble silicones identified by PEG and/or PPG in the ingredient name. ie. PEG-8 dimethicone and PEG/PPG-20/23 dimethicone. The numeral designation depicts the total ethylene oxide and propylene oxide molecules in their polymer chain—the greater the number of molecules, the greater its solubility.

**Amodimethicone:** (*aka amine-functionalized silicones*) Modified to be more substantive to hair, its positive ion charge is strongly attracted to wet hair 's negative charge, making them well suited for conditioning treatments. Allow formulators to maximize conditioning ability with much less silicone ingredients. They are a good fit for dog grooming products because damaged canine hair is typically more porous and more negatively charged. ie. curly coats and soft undercoat. They are notably engineered not to build up or weigh down the coat.

# Hair Care Silicones continued



**Phenyl dimethicone:** Used for its high refractive index to create high gloss and stunning shine. Typically found in leave-in sprays and serums.

**Cyclomethicones:** Made of cyclic, rather than linear molecular chains. They are used as base fluids, carrying agents, and wetting agents in a wide range of personal care and hair products due to their varying rates of evaporation, high spread ability, and non-greasy feel.

ie. Cyclopentasiloxane (d5) is the most common found in conditioners.

**Quaternized Silicones:** Cosmetic scientists observed how amodimethicone had greater affinity to hair when formulated along with cetrimonium chloride, a very common Quat conditioner. They are typically used to bolster the hairs substance and increase its tensile strength to resist breakage.

**Protein/Silicone Copolymers:** Advanced copolymers of proteins and silicone that offer protection against cuticle damage caused by common grooming and styling practices like drying, combing and brushing. These polymers crosslink on drying to form a conditioning and protective network offering many functional benefits to hair care products.

ie. Hydrolyzed wheat protein PG-propyl silanetriol and Cystine bis-PG-propyl silanetriol.

SLIDE 1

**B  
E  
F  
O  
R  
E**

SLIDE 3

**WASH  
AWAY THE  
OILS**

SLIDE 2

SLIDE 4

**REPLENISH WITH  
CONDITIONER**

**Put it to the Test**

**Extend Manageability**

<https://www.bestshotpet.com/product/best-shot-3-step/3-step-trial-offer>

