

# Snake Shedding: Ecdysis and Dysecdysis

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All reptiles shed their skins, referred to as ecdysis, in a manner that differs from species to species. Snakes shed or "slough" their skins in one piece, including eye caps, as opposed to lizards who look like they are recovering from a bad case of sunburn during a shed. In general, snakes will slough at least once a month. The frequency of shedding depends on many factors: species, age, nutritional and reproductive status, the presence of skin parasites or bacteria, and ambient enclosure temperature and humidity. Generally speaking, younger snakes will shed more frequently than adults and shedding often precedes mating and giving birth. The most common causes of improper or incomplete shedding are related to husbandry and nutrition.

## Recognizing an impending shed

A snake about to shed is referred to as being "in the blue." The signs you will see indicating a shed is about to take place are consistent and include:

- Skin becomes dull.
- Eyes become cloudy or 'bluish.'
- Increase in nervous behavior (because they cannot see well).

After three to four days, the eyes become clear again and the snake begins seeking out rough surfaces in its enclosure such as branches and rocks (which should be relatively smooth - not pumice) and should be readily accessible. Shedding will progress from nose to tail and will take anywhere from seven to 14 days. Never handle a snake that shows signs of an impending shed or is actively shedding. Snakes will generally not eat during a shed. Force-feeding is not necessary, and in fact, harmful. Once complete, the shed skin should be removed and the snake checked for a complete shed, including eye caps.

## Why are some sheds incomplete?

There are many reasons for the shedding process to be incomplete or improper, referred to as dysecdysis, the most common related to poor husbandry and/or nutrition. Dysecdysis is a symptom of another problem and not a primary problem in itself. A good rule of thumb is to have your snake checked by an experienced reptile veterinarian if you observe an incomplete shed. This will rule out medically treatable causes such as mites or bacterial infections of the skin. Other causes of dysecdysis include: trauma, dermatitis, malnutrition, and over-handling. Your veterinarian can guide you in appropriate treatments once the underlying cause has been determined.

## Husbandry techniques for an incomplete shed

Humidity is very important for reptiles with requirements varying from species to species. Most snakes require an environment of 50% to 70% humidity, but you should check what your snake's specific requirements are and make sure you have a reliable method to monitor this.

Incomplete sheds can often be managed by increasing humidity (during the shed or making correct overall adjustments if too high or too low). For tropical, arboreal snakes such as the Green Tree Python or Emerald Tree Boa, spraying with luke-warm plain water from head to toe on a daily basis may be beneficial (i.e., not just during the shed). You can also try placing your snake in a well-ventilated box of damp moss or paper towels.

Often, soaking a snake is recommended for an incomplete shed. This can also be beneficial but must be monitored. Never place your snake in a container that is deep enough to allow drowning and never leave a soaking snake unattended. This works well for smaller snakes of 3 feet or less. For larger snakes, finding a large enough "container" might be your biggest challenge. In this case, your snake can be placed in a clean plastic garbage can, bath tub or similar receptacle (a child's plastic swimming pool works well, too). Place your snake between layers of damp towels with room to move in and out of the layers. This movement will help the snake to remove the sloughing skin.

Retained eye caps or "spectacles" can be very dangerous for your snake. They can harbor dangerous bacteria as well as make it difficult for the snake to see. Removing them is not difficult, but make sure you are properly trained in this procedure first or you may do permanent damage to the cornea.

## Summary

A healthy snake will shed on a regular basis - generally around once a month. Normal shedding, ecdysis, is a necessary

### Shedded snake skin



### Close-up of shed skin from the head showing eye caps



process for growth in snakes and is highly dependent on numerous factors with the most important being good nutrition and proper humidity. As a result, malnutrition and humidity that is too high or too low for your particular species, as well as the presence of mites or skin bacteria, trauma, and too much handling can all result in your snake not shedding properly. Complete shedding should always include eye caps. Retained eye caps can present serious problems for your snake and should always be removed, whether naturally or by hand with proper training. Any time you suspect problems, consult with a qualified reptile veterinarian.