Brumation

This Q-Tip barrier is useful in spring to know when your tortoise has emerged
What is brumation?

- Definition: Brumation is winter dormancy in cold-blooded animals with backbones like reptiles and amphibians.
- In late September and October, tortoises undergo physiological changes that are independent of body temperature.
- Greatly reduced metabolism—its heart rate and breathing slow dramatically.
- The tortoise is programmed to sleep and not to eat.
Why do tortoises brumate?

• It’s their adaptation to the cold
• They need a body temperature of 85 degrees to fulfill tortoise functions like looking for food, metabolizing the food, or mating
• When it’s cold, they need another strategy – brumation
• Sulcata and Leopard tortoises, from warmer climates, do not brumate
Where should my tortoise brumate?

• In its burrow
• Temperature needs to be between 35 and 55 degrees for optimum brumation
• A snug, well-insulated burrow allows the tortoise to:
  – Retain most of its moisture
  – Stay the right temperature so it does not use up its resources
What happens if my tortoise brumates in the closet or under the bed?

- It does a slow cook all winter, losing moisture and precious calories
- A large tortoise can afford the losses more than a small one that might die
- If it has survived in the past, it will probably be okay again
How will I know that my tortoise is ready to brumate?

• Your tortoise will decide when its time
• It will come out less and less often
• It will eat less and less
What can I do while my tortoise is brumating?

• Days of gentle rain may produce flooding
• Check inside of burrow for flooding
  – Use a mirror during the day
  – Use a flashlight at night
• If there’s water inside burrow, dig it up!
• Tortoise can hold its breath for several hours
• Remove litter near burrow opening
What can I do while my tortoise is brumating?

• Cover the burrow in a big rainstorm- remove immediately afterward to avoid greenhouse effect
What if the burrow collapses?

• If the burrow collapses, dig it up!
• Leave it open to dry (takes a long time to dry)
• When dry, put the burrow back together—or build a new one
• Put the tortoise back in the burrow
Medical considerations

• If a tortoise shows signs of URDS (drippy noise) in fall:
  – It may be too late in the season to treat it
  – Symptoms may disappear during brumation

• If your tortoise is coming out continually during winter, it is probably sick and needs a trip to the vet

• A very sick tortoise may need to be kept awake
Should I feed my tortoise if it emerges early?

• No. It’s still very cold and can’t metabolize the food

• It may come out when it rains, too, even if it’s quite cold. That’s normal. Tortoises survive by getting rain when they can.

• Let the tortoise go back in the burrow on its own
Fall Farewell

- Soak tortoise
- May eat lots or not much at all
- Mark day last seen
Spring Welcome

- Emergence: Late February to April or May
- Tortoise comes out to bask
- Soak tortoise in water after a few days
- May come out and stay out on patio or under a bush. Outside temp is warmer than in burrow
- Offer MegaDiet when browsing begins
- And enjoy!