

LIVE TURTLE TRANSPORT

Sea turtles must be transported in a climate-controlled environment, protected from extremes of heat and cold, and kept moist. In general, the best range of temperatures for transport is between 21°C and 27°C (70°F and 80°F; see additional conditions for cold-stunned turtles below). If a turtle is transported at temperatures greater than or equal to 23.9°C (75°F), it must be cooled by keeping a wet towel on the carapace and by periodically applying water. Water and wet towels must not be used when transporting turtles at temperatures less than 23.9°C (75°F) or at any time they are exposed to an air-conditioned environment. The only exception is that any open wounds should be kept moist with clean freshwater regardless of temperature. At temperatures less than 23.9°C (75°F), juvenile turtles (less than 32 centimeter (cm) curved carapace length – 32cmCCL) may be kept from drying out during transport by applying a thin layer of water-based, water soluble, non-petroleum lubricant (e.g., K-Y Jelly) to the carapace and all the soft tissues (except the eyes and any open wounds). Larger turtles (≥ 30 cm straight carapace length) do not need a lubricant because they are less likely to dry out due to their low surface to volume ratio; therefore, use of a lubricant should be avoided to minimize risking of accidental slippage and injury during handling. Turtles must be placed in sturdy containers with sufficient holes for adequate ventilation during transport. Turtles must not be transported in water. The containers housing turtles during transport must be padded but must not contain any material that could be accidentally ingested. The containers must be secured during transport so they do not slide around or tip over.

COLD-STUN TRANSPORT PROTOCOL

Cold-stunned turtles occur when the water temperature drops below 11°C (51.8°F). For a turtle, the body temperature at or below **55°F is the cutoff for normal systematic function**. Rapid rises in temperature ($>3^{\circ}\text{C}/5^{\circ}\text{F}$ per hour) during transport, housing, and/or subsequent treatment should be avoided to the maximum extent practicable. Gradually warming by $3^{\circ}\text{C}/5^{\circ}\text{F}$ per day is the preferred regimen.

- Measure the turtle's body temperature using a temperature gun.
- Keep the vehicle at ambient temperature where the turtle was found. If you are picking up a turtle on the beach, do not turn on the heat in the vehicle. If you are picking up a cold-stunned turtle from another vehicle or rehabilitation facility, try to keep the temperature of the vehicle as close as possible (within $3^{\circ}\text{C}/5^{\circ}\text{F}$) to the turtle's current core body temperature. Make sure to constantly monitor the temperature throughout the duration of the transport. **Do not increase/decrease the temperature by more than $3^{\circ}\text{C}/5^{\circ}\text{F}$ per hour. Never drop the temperature of a cold-stunned animal. The standard re-heat rate at the rehab facility is $3^{\circ}\text{C}/5^{\circ}\text{F}$ /day.**
- To avoid drying out in conditions $<75^{\circ}\text{F}$, apply a thin layer of non-petroleum lubricant to the surface of the carapace and all soft tissue except for eyes and open wounds on juvenile turtles. Place dry towels on all turtles if $<75^{\circ}\text{F}$. **Do not use water or wet towels in conditions $<75^{\circ}\text{F}$, in air conditioning, or if the turtle is exposed to a draft or wind.** Be sure to keep open wounds moist with

clean freshwater during the duration of transport.

- If transport travel time is more than 45 minutes, apply ophthalmic eye gel to the lower edge of the closed eye. The turtle will blink the gel onto the surface of the eye. Do not put anything into the eye unless it is specifically labeled as ophthalmic.
- When transporting a turtle in/out of the vehicle or from an aircraft to vehicle be aware of the air temperature. All transfers of a turtle from one vehicle to another, from aircraft to vehicle or from a vehicle to a rehab facility should be done as quickly as possible. Plan out the turtle transfer before it occurs. The animal should remain in any transport container it arrived in to minimize exposure to air. **Do not delay transfer of turtles due to photo opportunities or other non-medical reasons.** Back up one vehicle to the other vehicle or into the rehab facility to avoid any temperature change. At the rehabilitation facility, the vehicle should be backed into the facility before the turtle is removed. **Do not allow the turtle's temperature to rapidly fluctuate by more than 3°C/5°F due to outdoor air contact.**
- Make sure that all transport containers are padded, clear of any materials that may be accidentally ingested and secure before transportation begins. **Do not allow the containers to slide around or tip over during travel.**

Transport by flight:

- The cabin temperature must be kept between 21°C and 27°C (70°F and 80°F).
- Rapid temperature changes must be avoided.
- Turtles must be accompanied by an animal care specialist at both transporting and receiving locations.
- Turtles must be transported in containers as approved by the State Sea Turtle Stranding Coordinator (e.g., wooden crate, banana box, plastic container, or other appropriate container) for transport. Additional foam padding or blankets may be used during transport.

Containers must be handled and secured during transport in an upright position. The top of the container must be clearly marked. Containers must be ventilated, padded if necessary, and be free of material that could be accidentally ingested.

