Capture and Restraint

Costa Rica Sea Turtle Medicine & Surgery
Nancy Mettee, DVM
Loggerhead Marinelife Center
Do no harm!

- Minimize handling to reduce patient stress and potential to do harm.
- Excessive handling of any patient, including hatchlings, creates stress which can compromise these wild animals. **Move slowly, surely, and deliberately.**
- Ensure that the head is above the water when capturing!
- If a turtle is becoming distressed by capture attempts and is hitting the tank walls, DRAIN THE TANK to reduce the chance of injury.
If any team member is uncomfortable they should be empowered to STOP THE JOB.

The plan can be re-evaluated and refined to ensure patient and handler safety.
The four Ps

☐ prepare
☐ partner
☐ plan
☐ protect
The first P: Prepare

- Ready the area and acquire all needed equipment before touching the patient.

- Crowd preparation may also be needed. This may include designating an educator so that they may discuss what is happening with visitors.
The second P : Partner

- Most turtles require at least 2 people to capture and restrain.

- You may also need a team to assist with door opening, crowd control, etc.

- Small turtles will need to have a person identified to restrain flippers to prevent self injury.
The third P: Plan

- Communicate all aspects of the plan with your partner/team before contact is made AND while the capture is in progress.

- Patient safety requires that all team members know what to do.
The fourth P: Protect

- One designated person attends to the turtle at all times.
- No turtle is left above ground without a keeper.
- If that person needs a break a replacement is identified.
Know the weak link

Each team member’s strength and experience should be taken into account. Better to arrange rest pauses to prevent undue strain. Calculate one lifter per 40 pounds of turtle as a minimum.
Appreciate individual differences and adapt!

- Apply only as much restraint as is needed for each individual. Sometimes less IS more.

- Some turtles require considerable effort to restrain and will struggle harder if they believe their attempts to evade will be successful. Other turtles will panic if they are restrained too heavily.

- Assess each situation, is the team or the patient struggling? If so, change tactics.
Capture with care

- Smaller turtles may require coaxing to within arm’s reach with a net or other device that has no sharp edges and can be easily sanitized.

- Move slowly with any object in the tank as fast movements can stress a patient and trigger the fight or flight response.

- Some turtles are quite aware what is going to happen and will watch your activity in the tank area.

- Commit to the plan and do not hesitate as that can increase stress.
How not to carry a juvenile green turtle.
Green turtles are especially fractious. Self injury due to strong flapping may cause claw avulsion, fractured finger tips, bleeding, and bruising.

To prevent excessive flapping many restraint methods may be employed. Smaller individuals may be held at the shoulders with both hands, larger ones may be "swaddled" in a towel or an assistant on “flipper duty” can be used during transport.

Most patients are less stressed if their head is oriented in the direction of movement. Transport in a padded bin can be helpful, even for short distances if the individual is extremely stressed.
Some turtles will relax with a hand or damp towel placed on the head or even pressure on the carapace.

Different techniques can be attempted, but if the turtle is not responding discontinue the method.

Turtles will typically exhibit strong escape efforts followed by periods of rest. Use this behavioral pattern to your advantage for procedures and transport.
Transport bins should be well ventilated with a lid to minimize stimulation and therefore stress. Padding with foam or towels beneath the turtle will reduce pressure. Towels rolled into a u-shape and placed beneath the cranial plastron can aid respiration and reduce cardiac compression (a major concern with patients over 50kg).

When dry docked overnight eye lubrication should be provided along with a wet towel over the carapace to provide humidity.

Be careful not to cover the head/nares as a wet towel can suffocate a weak patient.
Extended dry dock

- If the dry dock period is expected to be more than overnight coating the skin with an occlusive ointment such as A&D or vaseline will minimize dehydration and prevent the skin from becoming dry and cracked.

- Application of ointment onto the carapace and skull does not affect hydration, but can moisten the scutes and aid in removal of small barnacles and leech cocoons.

- Daily limb massage for patients in dry dock can help to reduce circulatory problems.
Thank you