



What to do if you admit a turtle to your Wildlife Centre

This document has been prepared with the combined input of several vets experienced in treating freshwater turtles.

ABOUT US:

The **Turtle Oblonga Network's** aim is to ensure every turtle receives *professional and compassionate care*.

The **Network's** services include:

- Rescue of turtles.
- Rehabilitation of sick, injured and orphaned turtles.
- Advisory service to community and wetland managers.
- Community information through information dissemination and displays.
- Workshops and training for wildlife professionals.



Found or Rescued Turtles

We are keen to examine any Oblong turtles found and/or rescued, to establish trends and collate data. If in the Perth metropolitan area, we are interested in examining and measuring all dead turtles. Please double-bag and chill (don't freeze) before calling us. Information we collect includes -

- Weight, length and gender.
- Where and why they are being found / rescued / injured.
- Meteorological conditions at time of rescue.
- Information obtained from basic necropsy examinations.

All of this assists in building up a picture of what's going on in our native turtle population.

If injured or in poor health, we'll take the turtle into care where it will be rehabilitated before being returned to its home lake. If the home lake is considered unsuitable, we will relocate the turtle to a healthier long-term release site.

A FEW TURTLE FACTS; OUR LONG-NECKED OBLONG TURTLES :

- Only live in fresh-water which is still and turbid.
- Are carnivores; they don't eat plant matter.
- Can only eat, swallow and defecate in water.
- Are sensitive and easily stressed so should be kept in a quiet part of the Centre.
- Preferred Body Temperature is 24-26°C.
- Must be at their PBT of 24-26°C for examination, to heal and to digest food.
- Are at risk of burning if placed on a heat pad, or unprotected water heater.
- Are easily stressed and sensitive to noise.
- Are stoic and do not display typical signs of pain. As well turtles are voiceless so cannot vocalise to indicate pain.
- Have shells which are living bone with nerves; any shell fractures will be painful; Meloxicam will be required as soon as possible.
- Are listed on the *IUCN Red List* as *Near Threatened* so every turtle is important.
- Procedures such as debriding and shell repair must be carried out under anaesthetic, and with pain relief.
- If wounded, are prone to fly-strike; keep in a flyproof area.
- Breathe air and can drown in water if trapped, weak or have shell fractures.
- Can climb and can disappear very quickly, so place in a secure, covered container.
- Are reptiles. Reptiles, even with a severed spine, can move their head and limbs although they are unable to walk in a co-ordinated way.
- Medication should be injected into the front legs.
- Have a prominent jugular vein which is the best route for euthanasia.





ADMISSIONS:

Please see the flow chart on Page 6 for additional information.

Types of Admissions

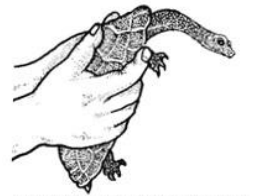
Adult turtles are generally admitted due to motor vehicle accidents, dog attacks or being found in dangerous locations. In Summer adult turtles admitted may be dehydrated, thin and debilitated. Hatchlings are also admitted when found on the journey from the nest to the nearest lake or wetland.

Rescue details

If possible, gather some background about the circumstances surrounding the turtle's rescue. **Please, if you do nothing else, get the rescuer's name and phone number** so that, if necessary, we can follow up with the rescuer for more information as well as providing them with information about the turtle's outcome.

Handling

The turtle will be dirty but other than a gentle tepid rinse, please don't attempt to clean it as the shell is as sensitive as skin. When handling turtles be prepared for them to squirm strongly; take care not to drop them when this happens. Use something like small towel which will make the turtle less slippery – use both hands as shown. Although turtles don't have teeth, they may occasionally bite. However, they're unlikely to do more than scratch you with their claws in an effort to escape your grasp. To minimise the risk of dropping the turtle and cracking its shell, it is recommended that one person hold the animal, and another carry out the examination. Cover the head to calm the animal.



Caring for Australian Wildlife: Sharon White

FIRST AID:

Please see the flow chart on Page 6 for additional information.

Weak turtles, or turtles with wounds (usually dog attacks, or motor vehicle accidents)

Please keep out of water as weak turtles may drown. Turtles with shell fractures can drown if the lungs have been punctured which is probable given the size and location of their lungs: turtles' lungs are located under the top shell (carapace) and occupy the shell's length and breadth (see last page). Place turtles on a damp towel and cover container with a dark cloth in a quiet, fly-proof area. **Don't feed.**

Shell fractures

As the turtles' shell is living bone with nerves, any shell wounds will be painful. Administer pain relief (Metacam) and stabilise the shell with vetwrap before getting the turtle to the vet as soon as possible. **Don't feed.**

Turtles without wounds

Turtles without wounds may be placed in shallow water sufficient to cover their feet – this will help them rehydrate and de-stress. Cover container with a dark cloth in a quiet place. **Don't feed.**

Hatchlings - under 5cm top shell (carapace) length

Handle gently as hatchlings' shells remain soft for a couple of weeks after hatching. Place on a damp cloth in a small container. **Don't feed.** Some hatchlings may have unabsorbed yolk sac on their bottom shell (plastron) – the hatchling will absorb this as nourishment over several days.

Turtle Eggs

Turtle eggs are about 4cm long, oblong in shape and look like pebbles. Unlike other reptile eggs, turtle eggs are brittle and hard like birds' eggs. Handle with a minimum of movement before placing it in an egg carton padded with tissue for safety and to minimise further movement. Please call us as soon as possible for advice; we have the expertise and facilities to incubate the egg(s), if viable.





EXAMINATION & TREATMENT:

Please see the flow chart on Page 6 for additional information.

Preferred body Temperature

- Turtle should be placed on a towel dampened with warm water to avoid further chilling, and to maintain humidity,
- Turtles should be examined at their PBT of 24-26°C.
- Treatments should be given when the turtle is **maintained** at its PBT of 24-26°C.

Rehydration

- **Rehydration via tube is NOT RECOMMENDED without specific one-on-one training and/or experience. Please contact us for training opportunities.**
- For minor dehydration, turtles may be rehydrated in tepid water (24-26° C). **Note: 24°C feels cool rather than warm.**
- For sub-cutaneous rehydration, inject fluids under the skin around the front legs toward the shoulder.
- Rehydration fluids used are Saline or Hartmanns.
- Estimated shell weight is **not** deducted from the body weight when calculating dosages.

TURTLE FLUID CALCULATION TABLE FOR FIRST 3 DAYS

Weight	1/3 Deficit	Maintenance	ML/Day	AM	PM
100	3.3	2.0	5.3	2.7	2.7
200	6.7	4.0	10.7	5.3	5.3
300	10.0	6.0	16.0	8.0	8.0
400	13.3	8.0	21.3	10.7	10.7
500	16.7	10.0	26.7	13.3	13.3
600	20.0	12.0	32.0	16.0	16.0
700	23.3	14.0	37.3	18.7	18.7
800	26.7	16.0	42.7	21.3	21.3
900	30.0	18.0	48.0	24.0	24.0
1000	33.3	20.0	53.3	26.7	26.7

Injections

- First clean the injection site with an alcohol swab. Use the finest needle possible.
- Always give antibiotics and pain relief injections into upper body quadrants as the renal-portal system may flush medication through the kidneys before therapeutic levels are reached if they are injected into the lower body quadrants.
- I/M injections into front leg muscles. If repeating injections alternate between left and right front legs.
- S/C injections under loose skin around the front legs.

Imaging (X-rays)

Ideally, all turtles admitted should be X-rayed; it does no harm and can identify unexpected problems. In particular, large females, seawater immersions and all trauma cases should be x-rayed for eggs, water in the lungs, fractures and fish hooks. Eggs can be surgically removed from cadavers for artificial incubation.

Turtle X-rays can be confusing as both the bony sutures and the scute margins are visible and should not be mistaken for fractures (see diagram on Page 5). Anaesthetise/sedate for X-ray. Can also x-ray turtles conscious if they are placed in a cloth bag (with tie).

Shell Fractures

- Administer Meloxicam for pain relief and get the turtle to the Vet as soon as possible.
- For the severe pain of shell fractures, **Butorphanal Tartrate/Torbugesic™** may be used by your Vet at the suggested anecdotal dose rate. For information on repairing shell fractures, please ask your Vet to contact Perth Zoo.

Euthanasia Cases

Euthanasia should only be carried by your Vet once the turtle has been sedated. The best route for euthanasia is the jugular vein. Euthanasia should be carried out for any turtle with -

- Multiple mobile shell fractures and fractures in the region of the vertebrae.
- Major disruption of the coelomic membrane resulting in coelomic contamination and infection.
- Associated trauma to internal organs or girdle fractures.
- Debilitated animals with chronic lesions.

Abrasions & Wounds

- Do not flush cavity wounds.



- Flush superficial wounds with warm saline and apply dressings i.e. Melolin™, Duoderm-thin™ or Fixomull™, Vet-wrap.
- Cover with Melolin™ and Vet-wrap as a temporary dressing in the short-term.

Eyes

- Eye trauma may result from dog attacks or when dragged on hard surfaces in the case of vehicle collisions.
- Flush eyes with warm saline before applying Tricin™ applied 2-3 times/day.
- Corneal ulcers need immediate veterinary care. Bilateral blindness means euthanasia.
- Turtles can survive in the wild with one eye.

Blood testing

Blood tests for PCV and white blood cell count are useful diagnostic tools. Your Vet should have normal values but in case not

- PCV 17-35% TPP 60-76g/l Glucose 4 mmol/l

Skin and Shell Infections

Wild turtles rarely present with skin or shell infections. These infections are generally only seen in captive turtles.

MEDICATIONS:

Medications should only be administered under veterinary guidance or as per your agreed Wildlife Centre protocols. Turtles must be **maintained** at their PBT of 24-26°C and rehydrated before the administration of any medication.

Meloxicam/Metacam™

- Used for pain relief as well as an anti-inflammatory.
- Essential for fractured shell cases.
- The use of Meloxicam should be delayed if the turtle is severely dehydrated as when given to a dehydrated turtle the kidneys can be damaged with fatal consequences.

Ceftazidime/Fortum™

- Ceftazidime is the injectable antibiotic of choice for turtles (see note below).
- Recommended course for reptiles is for no less than five treatments, every three days.
- Inject into the front leg IM/SC.
- Used for deep infections and cracked shell infections.
- Turtles should not be returned to the wild until two weeks AFTER the last Ceftazidime treatment.

Note: Once reconstituted with sterile water for injection, Ceftazidime can be stored in the refrigerator for 7 days, or frozen for 6 months.

Enrofloxacin /Baytril™

- Enrofloxacin **IS NOT** the injectable antibiotic of choice for turtles.
- Enrofloxacin is very basic/alkaline, causing pain; the use of a fine needle and dilution with sterile water is recommended.
- Repeated injections can cause muscle necrosis particularly if the same injection site is used: alternate between left and right front legs.
- Oral Enrofloxacin is easy to administer when giving oral fluids or tube feeding, and is well tolerated.

Tricin™

- Flush eyes with warm saline before applying Tricin™.
- Dry docked patients need Visco Tears™ applied 2-3 times/day.

Stromectol/Ivermectin™

DO NOT USE. Stromectol is fatal for turtles.



Chlorhexadine and Povidone-iodine/Betadine™

- Topical wound cleaning solutions - do not use in the eyes.
- Chlorhexadine 0.05% (0.5ml in 1000ml warm water) - three times/day
- Povidone-iodine 0.5% (5ml in 1000ml warm water) - three times/day

REFERENCE MATERIAL:

Reptile Medicine and Surgery by Douglas Mader.

Current Therapy in Reptile Medicine and Surgery by Douglas Mader, edited Stephen Divers.

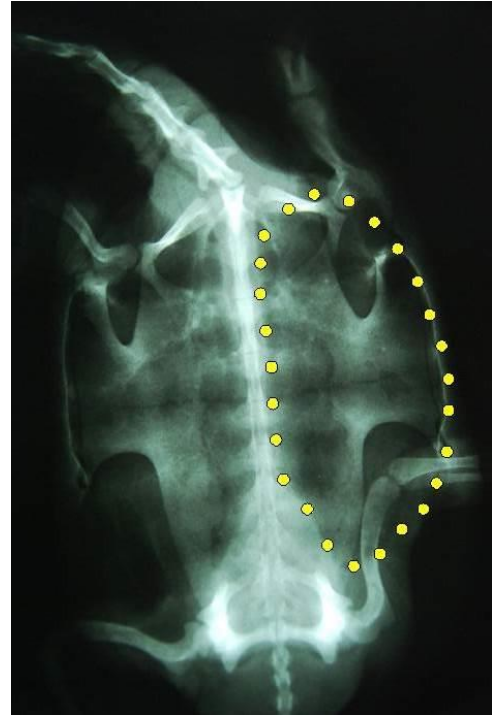
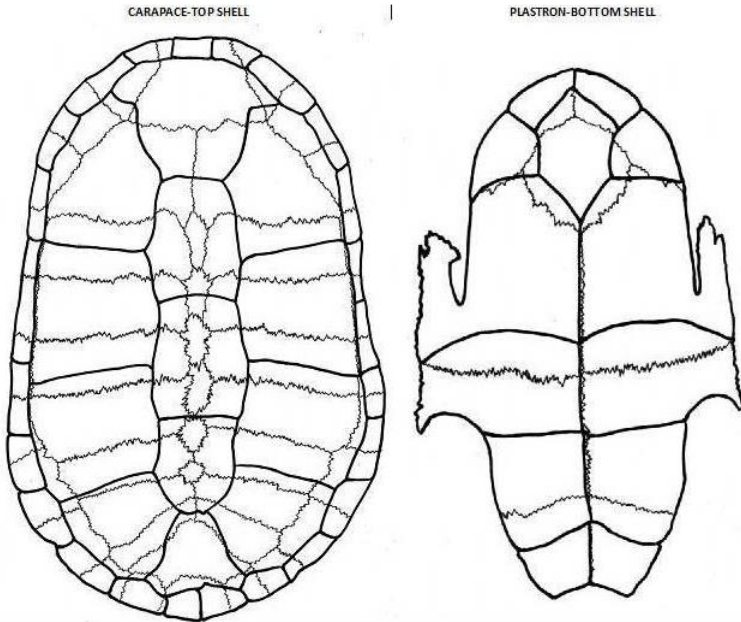


IMPORTANT ANATOMY

LEGEND:

JAGGED lines represent **SUTURES**
SMOOTH lines indicate **SCUTES**

**TURTLE LUNGS EXTEND THE ENTIRE LENGTH
OF SHELL AND ARE LOCATED UNDER
CARAPACE (TOP SHELL)**



EMERGENCY PHONE NUMBERS

For help, rescue and advice with wild turtle issues

0424 727 411 East Metro • 0424 727 624 South Metro • 0414 476 867 North Metro

If, for any reason, the Turtle Oblonga Network number in your area doesn't answer, please call one of the other numbers.

0428 984 445 Albany • 0438 813 919 Margaret River • 0437 910 054 Busselton

Please take the time to look at our website www.turtleoblonganetwork.org.au

and/or contact us at secretary@turtleoblonganetwork.org.au



For sick, injured or orphaned wildlife and to report suspicious,
malicious or illegal wildlife activity including poaching and hunting
Statewide Wildcare Helpline 9474 9055 (7 days)



TURTLE RESCUE & ADMISSION FLOW CHART

