



Terrapins^{.co.uk}
Helping you become a better terrapin owner

TURTLE GUIDE BOOK



Contents

Introduction	5
Is a Turtle the Right Pet for you?	6
Common Turtle Profiles	8
Aquatic and Semi-Aquatic Turtles	8
Red-Eared Slider	9
Terrestrial Turtles	14
Eastern Box Turtle	14
Ornate Box Turtle	14
Semi-Aquatic Turtles Commonly Mistaken as Land Turtles	15
Getting Started with your Turtle	17
Where to Buy a Turtle	17
Healthy Turtle Checklist	18
When to Buy a Turtle	19
Determining a Turtles Age	19
Providing the Correct Living Space	19
Setting up an Aquatic or Semi-Aquatic Turtle Terrarium	20
Internal Power Filters	21
External Power Filters	21
Setting up a Home for Land Turtle	25
Where to Place your Turtles Home?	26
Finding a Suitable Place Indoors	26
Finding a Suitable Place Outdoors	27
Transporting a Turtle	27
Ongoing Care for your Turtle	28
Feeding a Healthy Diet	28
Meat & Fish	29
Vegetation	29
Commercial Dried Food	30
Additional Dietary Supplements	30
Feeding the Right Amount	31
Grooming your Turtle	32
Caring for your Turtle whilst on Vacation	32
Helping your Turtle Hibernate Safely	33
How to Spot when your Turtle is Ready to Hibernate	34
Hibernating an Older Turtle	34
Providing Suitable Hibernation Conditions	34

Bringing your Turtle out of Hibernation	35
Breeding Turtles	36
When do Turtles Breed?	36
Mating Behaviour	37
Fertilizing the Eggs	37
Tips for Successful Mating	38
Handling the Eggs and Checking if they are Fertilized	39
Providing a Safe Incubation Chamber	39
Caring for Baby Turtles	40
Looking after your Turtles Health	41
Important Hygiene Measures	41
Common Turtle Health Problems	42
Diarrhoea	42
Respiratory Distress	42
Swollen Eyes	42
Shell Injuries	43
Mineral Deficiency	43
Vitamin A Overdosage	43
Vitamin D3 Overdosage	43
Difficulty Laying Eggs	44
Turtle Behaviour and Activity	45
Body Language	45
Pacing or Swimming Back and Forth	45
Digging in the Ground	45
Stretching out Flat on all Fours	46
Standing Tall, Legs Extended, Head Held High	46
Withdrawing Limbs in to Shell Suddenly	46
Ramming another Turtle with its Shell	47
Burrowing in to the Ground	47
Laying on its Back	47
The Senses	47
The Turtles Shell	48
Training a Turtle	49
Take Advantage of its Natural Tendencies	49
Taming a Turtle to Your Touch	49
Using a Mealworm Machine	50
Summary	51

Best Buys	52
Turtle Quiz	53
Questions	53
Answers	54
Disclaimer & Copyright	55



Introduction

Turtles are one of the oldest species living on planet earth today. In fact, like crocodiles they have been around since dinosaurs walked the earth – long before humans existed.

In ancient times the earth's climate was a much warmer place and today's turtles are still adapted to those conditions. This is why you will not see many wild turtles surviving in colder climates.

The natural habitat of today's modern turtles lies in the tropical and sub-tropical regions of the world. However, by hibernating through the winter months, some species of turtles have been able to adapt to the changing seasons and survive quite comfortably in parts of North America, Europe and Australia.

In the UK, freshwater turtles (the kind you would keep as a pet) are usually referred to as terrapins with turtles only being used to describe the wild saltwater species. In this guide I will use the term turtles to describe all species – saltwater or freshwater.

This fascinating long past and uniqueness in appearance make turtles a popular choice of pet for many children and adults alike.

Unfortunately, too many people purchase a turtle as a pet without understanding much about the conditions that are needed to keep a turtle healthy.

This often leads to turtles being set-free in the local lakes and rivers as the owners lose interest in their once loved pet. It is sad to report that very few of these 'released' turtles survive for more than a few months because of the specific conditions that are needed to thrive.

It is my aim in this guide to educate you on the wonderful world of turtles and how to successfully keep them as pets. If shown the right amount of love and care, turtles can be a fantastic addition to your family and provide you with joy and entertainment for many years.

I myself have had a pet red eared slider turtle, named Terry since 1999 and he still provides me with a great centrepiece for my home and hours of entertainment. You can see a photo of Terry below:



Is a Turtle the Right Pet for you?

Before buying your first turtle you need to be sure that a turtle is the right pet for you. Turtles can live for 30-40 years so they are a long-term pet; you need to be sure you can care for one properly for the full length of its life.

Factors affecting your decision:

1. Do you have space for an aquatic turtle?

Turtles that live in water will need a large aquarium as a living space. Although many turtles are very small when they are young, they can grow quickly and reach sizes of up to 12 inches (30cm). A medium-sized aquarium that holds 52 gallons (200 liters) of water will weigh around 550 pounds (250kg) when complete with all accessories.

2. Do you have a yard or garden?

Although it is not necessary, some turtles will thrive when exposed to fresh air outside during warm summer months.

3. Can you provide a warm environment for your turtle?

Many turtles require a warm environment to survive; therefore you may need to buy an aquarium heater to keep the water at the best temperature for your turtle.



4. Do you have time for regular cleaning of your turtle's environment?

Turtles are naturally very messy eaters. Even with the best filtration, a turtle's aquarium and living space can become messy quite quickly. You should be willing to give your turtles home a good clean every week.

5. Can you afford to keep a turtle?

Keeping any kind of turtle can be expensive. From buying the right food through to purchasing special equipment and covering vet bills the costs can mount up. Aquatic and semi-aquatic turtles can be particularly expensive to keep. That said, once you have bought the initial tank and accessories – if looked after properly you should not need to spend much more than \$20 (£10) a month on your turtle.

6. Do you have access to a cold cellar or unheated basement?

Depending on the type of turtle you purchase and your location in the world, your turtle may benefit from hibernating in the colder months of the year. For this purpose a cold cellar or unheated basement is an ideal location for your hibernating turtle.

7. Can you suitably accommodate an indoor aquarium?

Just like if you keep fish, a turtle's aquarium needs to be suitably positioned in your home – away from drafts, direct sunlight and excessive vibrations (e.g. from a stereo or washing machine).

8. Is there a trained veterinarian in your local area?

Should your turtle ever become ill you will need a veterinarian who is trained to treat turtles. Before purchasing your turtle you should locate your nearest specialist and ensure you will be able to get there quickly in the event of an emergency.

9. Do you own any other pets?

If the turtle will live in the same house as another animal you must ensure that the animals will get along. For example, cats can be very inquisitive of a small animal such as a turtle. If there is a potential conflict between your new turtle and another animal you should take steps to ensure you can provide a safe environment for all your animals.

10. Is there someone who can look after your turtle when you are on vacation?

Just like when you buy any new pet, you need to plan ahead and ensure you know someone who can look after your turtle while you are away. Ideally this person should be able to look after your turtle in your own home to avoid the stress a turtle can suffer during transportation and a change in its surroundings.

11. How many turtles would you like to keep?

The number you would like and the number you are able to keep may be different. Turtles can grow very large and so you should ensure the living space you can provide is large enough for the number of turtles you would like.



12. Do you want a male or female turtle?

If you only want to keep one turtle then its sex is not overly important. The behaviour of both male and female turtles is very similar. However, if you wish to keep more than one turtle then you should ensure that you only purchase all males or all females unless you wish to breed them.

Once you have given consideration to all of these points you can then go ahead and purchase your first turtle. Be sure to find a specialist aquatics store to purchase your turtle from. An ordinary pet

store may lack the skills and knowledge to look after a turtle properly and this could mean you inadvertently purchase a turtle that is already sick.

Common Turtle Profiles

As mentioned earlier, turtles are one of the oldest animal species alive today. Fossils of turtles dating back as far as 180 million years ago have been found around the world. Many of these fossils have shown that back then, turtles were slightly larger than today's turtles at around 20 inches (50cm) in length.

Interestingly the fossils also showed that 180 million years ago, many turtles had small knobbly teeth. This is different to the modern day turtles that have no teeth but instead rely on horny and jagged edge jaws to tear up their food to eat it.

The largest turtle around today is the leatherback sea turtle which is more than 5 feet (1.5m) long and weighs as much as 1,800 pounds (800kg)! Compare this to the smallest aquatic turtles (e.g. spotted turtles) which are commonly only 4.5 inches (10-12cm) long and around 4 ounces (120g) in weight.

Aquatic and Semi-Aquatic Turtles

Wood Turtle

Latin Name: Clemmys Insculpta

Size: Female 5 inches (13cm), male up to 9 inches

(23cm) **Natural Location:** USA and Canada (protected in

all states) **Habitat:** Bogs, woodlands, and pasture edges

Behaviour: Active by day. Can climb over wire-netting fence 6ft (2m) high. Very intelligent.

Care: Terrarium or outdoor enclosure with hide box; air temperature should be 65-80F. Good candidate for outdoor enclosure if temperature permits.

Diet: Beetles, snails, worms, berries, and fruit.

Hibernation: Yes – hibernates under water or rarely burrows under the soil or land.



Common Musk Turtle (Stinkpot)

Latin Name: Sternotherus Odoratus

Size: Up to 6 inches (15cm)

Natural Location: USA (Florida) to southern Canada

Habitat: Still waters, abundant vegetation, gentle slopes

Behaviour: Active day and night, big eater.

Care: Semi-aquatic terrarium and garden pond; provide water temperature of 68-77F (20-25C) for specimens from northern US and 73-82F for those from southern US. Air temperature 75-82F (24-28C). May be kept in a garden pond spring and summer when temperatures permit.

Diet: Carnivorous

Hibernation: Dependent on place of origin, winter cooling generally sufficient.

Special Notes: Poor swimmer. If kept in a garden pond ensure the shore is gently sloping for easy exit. The name 'Musk Turtle' comes from the foul-smelling musk the turtles secrete when disturbed.

Red-Eared Slider

Latin Name: Trachemys Scripta Elegans

Size: Up to 10 inches (25cm)

Natural Location: Southern USA, east and west of the Mississippi

Habitat: Quiet waters with lots of vegetation and warming quickly in the sun's heat.

Behaviour: Active by day, enjoys basking in the heat and is a lively swimmer.

Care: Aquarium – water temperature 79-82F (26-28C), air 79-90F (26-32C). Can be kept in garden pond in hot weather (70F or 21C and above).

Diet: Adults are mainly herbivorous, young are carnivorous.

Hibernation: Not necessary, even to breed.

Special Notes: This turtle is best kept as a solitary turtle – does not mix with other turtles well.

Mississippi Map Turtle

Latin Name: *Graptemys Pseudogeographica Kohnii*

Size: Females up to 10 inches (25cm), males up to 5 inches (13cm)

Natural Location: Southern USA

Habitat: Rivers and ponds with abundant vegetation, insects and fish

Behaviour: Active by day.

Care: Aquarium with island for sunning, water 72-82F (22-28C), air 72-82F (22-28C). Garden pond when temperature is above 72F (22C).

Diet: Primarily eats insects, and fish. May also eat some vegetation. Especially likes snails, molluscs, worms, and insects.

Hibernation: Not needed.



Painted Turtle

Latin Name: *Chrysemys Picta*

Size: Up to 10 inches (25cm)

Natural Location: Around the Mississippi

Habitat: Calm waters that are rich in vegetation

Behaviour: Active by day, fairly constant alternation between sunning and foraging.

Care: Aquarium and/or garden pond; water and air temperature 68-77F (20-25C). In aquarium provide an overhead spot lamp above an island for warming.

Diet: Omnivorous (half meat/half vegetation)

Hibernation: Winter cooling if breeding is desired.



Spotted Turtle

Latin Name: Clemmys Guttata

Size: Up to 5 inches (12.5cm)

Natural Location: Eastern and North Eastern USA.

Habitat: Small, marshy meadow and woodland ponds.

Behaviour: Active by day, when the water is warm. Needs shallow water; likes to bask in the sun when the water is cold.

Care: Semi-aquatic terrarium and outdoor enclosure. Water temperature 72-81F (22-27C), air temperature 72-82F (22-28C). May enjoy a garden pond when temperatures permit.

Diet: Carnivorous.

Hibernation: Yes, from the first winter. Provide winter cooling the second year to breed this turtle.

Special Notes: Males have a longer head than females. Hatchlings have a yellowish-brown pattern.

Reeves' Turtle

Latin Name: chinemys Reevesii

Size: Up to 7 inches (17cm)

Natural Location: Indonesia, Japan, South Eastern China.

Habitat: Calm fresh and brackish bodies of water.

Behaviour: Active by day.

Care: Shallow aquarium and garden pond; both should provide a way to climb out of water as turtles is a poor swimmer. Garden pond only when water temperature reaches 80F (27C). Air temperature 75-82F (24-28C).

Diet: Carnivorous.

Hibernation: No

Special Notes: Reproduces readily in captivity.

Common Snake-Necked

Turtle Latin Name: Chelodina

Longicollis **Size:** Up to 12 inches

(30cm) **Natural Location:**

Eastern Australia

Habitat: Still and slow flowing water, shallow shore.

Behaviour: Active by day. Lively swimmer. Likely to bite during mating season.

Care: Spacious aquarium. Water temperature 73-82F (23-28C) and air temperature 75-82F (24-28C).

Diet: Carnivorous.

Hibernation: No.



Special Notes: This turtle, a member of the side-neck family, turns its head and long neck and tucks it under its shell for protection.

 Terrapins.co.uk

Malayan Box Turtle

Latin Name: Cuora

Amboinensis **Size:** Up to 8

inches (20cm) **Natural**

Location: South East Asia.

Habitat: Shallow lakes and ponds.

Behaviour: Active by day. Poor swimmer. Spends time on land.

Care: Semi-aquatic terrarium with underwater climbing aids (rocks, plants, etc) so that turtle can easily reach the surface. Land portion of terrarium should be 30-40% of the total area. Water temperature 75-86F (24-30C), air temperature 79-86F (26-30C). Temperature should NEVER go below 64F (18C) otherwise turtle may develop respiratory infections.

Diet: Omnivorous (half meat)

Hibernation: No.



Spiny Soft-Shell Turtle

Latin Name: Trionyx Spiniferus

Size: Male 6 inches (15cm), female up to 18 inches (45cm).

Natural Location: Central and Eastern

USA **Habitat:** Marshy rivers, streams

and lakes. **Behaviour:** Active by day.

Care: Aquarium and garden pond when temperatures permit. Water temperature 72-81F (22-27C). Use fine sand in the bottom of the aquarium. Must be able to extend its neck to reach the surface of the water from the bottom of the aquarium.

Diet: Carnivorous.

Hibernation: Dependent on origin.

Special Notes: There are 23 species of the Trionyx worldwide, be sure of species before purchase. Some African soft-shells can grow to 24 inches (60cm) and are likely to bite. Turtles best when kept alone. The shell is very sensitive and injuries heal poorly. Only recommended for experienced keepers as water must be kept very clean and a bite can cost a finger!



Terrestrial Turtles

Eastern Box Turtle

Latin Name: Terrapene Carolina (4 sub-species)

Size: Around 4-8 inches (10-21cm) depending on sub-species.

Natural Location: Eastern USA.

Habitat: Damp open woodlands and meadows.

Behaviour: Crepuscular (active in morning and evening twilight)

Care: Terrarium and outdoor enclosure. Air temperature 64F (18C) at night to 82F (28C) in daytime. Box turtles like the early morning and late afternoon sun.

Diet: Hunts earthworms, grasshoppers, crickets, and locusts. Some eat greens and mushrooms.

Hibernation: Yes – depending on area of origin.

Special Notes: In all but Floridian box turtles, the iris in the male is reddish-brown to orange, while the iris of the female is yellowish-white to yellow. For experienced keepers only.

Ornate Box Turtle

Latin Name: Terrapene Ornata

Size: Up to 6 inches (15cm).

Natural Location: USA.

Habitat: Grassland; sandy; semidry soil, near water.

Behaviour: Secretive and crepuscular.

Care: Terrarium and outdoor enclosure. Air temperature 64F (18C) at night to 82F (28C) in daytime. Box turtles like the early morning and late afternoon sun.

Diet: Hunts earthworms, grasshoppers, crickets, and locusts. Some eat greens and mushrooms.

Hibernation: Yes, even in first winter.

Special Notes: These turtles do not do well in captivity. Like to hide in burrows.

Semi-Aquatic Turtles Commonly Mistaken as Land Turtles

Painted Wood Turtle

Latin Name: *Rhinoclemmys Pulcherrima*

Size: Up to 8 inches (21cm).

Natural Location: USA.

Habitat: Moist areas near to rivers, ponds and lakes.

Behaviour: Excellent swimmers, climbers and diggers.

Care: Semi-Aquatic terrarium with 1/3 water and 2/3 land. Water temperature 80F (27C), air temperature 80-82F (27-28C). High humidity needed (85-95%). Spot lamp in one corner provides a warm spot of up to 97F (36C).

Diet: Omnivorous (half-meat).



Vietnamese Leaf Turtle

Latin Name: *Geoemyda Spengleri*

Size: Up to 6 inches (15cm).

Natural Location: Southern China, Vietnam, Indonesia.

Habitat: Rivers and streams in tropical mountain rain

forests. **Behaviour:** Active by day.

Care: Semi-aquatic with 50-75% land area. A rocky bottom provides good footing. Water temperature 75-79F (24-26C), air temperature 75-79F (24-26C).

Diet: Mixed.

Hibernation: No.

Special Notes: Has a pronounced hook on upper jaw which is used for climbing – should NOT be trimmed. High mortality rate. May enjoy a strong current in water.



 Terrapins .co.uk

Spiny Turtle

Latin Name: Heosemys Spinosa

Size: Up to 8.5 inches (22cm).

Natural Location: Thailand, Malayan Peninsula, Sumatra, Borneo.

Habitat: Mountain streams of tropical rain forests.

Behaviour: Active by day.

Care: Aqua-Terrarium with 40-60% land area. Water temperature 75-79F (24-26C). Likes fast- slowing, shallow water with secure footing,

Diet: Mixed.

Hibernation: No.

Keeled Box Turtle

Latin Name: Pyxidea Mouhoti

Size: Up to 7 inches (18cm).

Natural Location: Vietnam, Laos.

Habitat: In and around the waters of tropical rain forests.

Behaviour: Juveniles are semi-aquatic, whereas older turtles are mainly terrestrial. Like to burrow in the moist, leafy forest floor and enjoy the green shade.

Care: Semi-aquatic tank. Water and air temperature 73-77F (23-25C). Soil temperature 68-71F (20- 22C).

Diet: Omnivorous.

Hibernation: No.

Getting Started with your Turtle

How easy it is to buy a turtle depends on where you live in the world. In places where turtles live commonly in the wild there are likely to be many sellers looking to provide you with your new pet.

What is never suggested is that you take a turtle from the wild. It is unfair on the turtle to remove it from its natural environment purely so it can become your pet. Wild turtles are also much more likely to be carrying illnesses and disease that could lead to significant treatment bills in the future.

Where to Buy a Turtle

In essence there are two main places you can look to buy a turtle from:

1) A Pet Shop

Preferable the pet shop should be a specialist reptile or aquatics store that shows knowledge of how to properly care for a turtle. It is always worth asking the store a few questions to determine how far their knowledge stretches.

Good knowledge will increase the likelihood your new turtle will have been properly cared for and will not be carrying any diseases.



You should never buy a turtle on the spur of the moment due to the responsibilities that come with it for many years. You should always find out exactly what care and equipment the species of turtle requires before buying it.

2) A Breeder

Breeders will often advertise in magazines, newspapers, and online offering various turtles for sale. It is very important that you visit the breeder and see where the turtles are kept and how they are cared for before you consider purchasing one. This will help you determine how well looked after the turtles are and how reputable the breeder is.

It may even be possible for the breeder to show you your new turtles parents. If this is possible then you should examine the parents carefully to ensure that there are no obvious signs of disease or illness that could have been passed on to the offspring.

Both a pet shop and a breeder should be able to advise you on the correct equipment you will need to care for your turtle and advise on any problems you encounter.

Healthy Turtle Checklist

Below is a checklist to help you examine and judge a turtles health before purchase:

Observation	Semi-Aquatic and Aquatic Turtles
Shell in good condition	<p><i>Young turtles:</i> Up to 1/3 of adult size: Firm and elastic shell, like a thumbnail.</p> <p><i>Adult turtles:</i> Hard and firm shell. All scutes (horny plates) firm and intact top and bottom. Algae growth is acceptable. Some turtles regularly shed their shell.</p>
Shell in poor condition	<p><i>Young turtles and adults:</i> Shell gives way when pressed, like crust on a baguette.</p> <p><i>Adults:</i> Firm, but then changes shape. Individual plates very bumpy or profile from the side as very bumpy.</p> <p><i>Plastron:</i> Holes in horny plate; pink, watery blisters under or in horny plate; loose or missing plates, bare (whitish-yellow) bone exposed.</p>
Skin healthy	Outside of heavy scales on neck and legs, skin is leathery, soft and elastic.
Skin not healthy	Cracked or infested with ticks and mites.
Eyes healthy	Clear, bright, opened wide.
Eyes not healthy	Cornea clouded, lids closed, swollen.
Nose healthy	Dry, no bubbles, no noise when breathing.
Respiratory tract not healthy	Bubbles at nose and mouth, opens mouth wide while craning neck, rattle when breathing.
Claws healthy	Claws loosely embedded or missing; nail bed inflamed (reddish or whitish) and/or swollen
Movement	<p>On land: All four legs used for forward motion; no dragging of rear legs (nerve damage).</p> <p>In water: When viewed from the front, does not tilt to one side when swimming (lung damage).</p>
General responsiveness	When picked up, the turtle either moves vigorously in defense or pulls back strongly into its shell.

When to Buy a Turtle

You should never buy a turtle until you are ready for the responsibilities that come with it. You should have thought long and hard about whether you wish to own a turtle.

You should also have decided which turtle you would like and already have bought and set-up the equipment it will need.



The best time of the year to purchase a turtle is in the summertime while the weather is warm. If you purchase during the winter it may be difficult to decide whether an unresponsive turtle is ill or is about to hibernate. Sick turtles are unlikely to survive hibernation and therefore purchasing well before hibernation is needed is the best policy.

It is also not advisable to buy a turtle that is just coming out of hibernation. If it had a health problem at the start of winter that problem is unlikely to be evident until around 4-8 weeks after it has fully awoken.

Determining a Turtle's Age



You cannot determine a turtle's age by counting the growth rings on its shell. However you can make a rough estimate of its age if you know how large it is now, and how large the species tends to grow. This method is most useful when the turtle is still young, if your turtle is around a third of the normal adult size it will be around 3 years old.

The growth rate of a turtle does slow as it ages and it is also dependent on its living conditions. Therefore this method only gives a rough estimate and it becomes more difficult to estimate a turtle's age as it reaches adulthood.

Providing the Correct Living Space

This is one of the most important factors in keeping a turtle. You need to ensure the space your turtle lives in suits its needs and is large enough to keep up with a turtle's fast growth rate. You should also be aware of the exact conditions your turtle needs e.g. water and air temperature, depth of water, % of land space, and stillness of water. You can refer to the [turtle profiles](#) in this eBook for more information on the needs of common turtles.

Setting up an Aquatic or Semi-Aquatic Turtle Terrarium

Although aquatic turtles spend most of their time in the water they are also partial to basking under a heat lamp. Semi-aquatic turtles obviously need both water and dry land to stay happy and healthy whilst in your care. This presents various challenges for you as the owner, constructing a set-up that contains suitable land and water with the minimum amount of maintenance can be a tricky task.

The amount of water or land your turtle will need depends greatly on the species you own. Some semi-aquatic turtles need a large and varied terrain so that they can dig, climb and explore. A rock or shelf that emerges out of the water should be enough to keep an aquatic turtle happy since it will only use it for basking.

Please refer to the [turtle profiles](#) section to find out the perfect set-up for your turtle.

Tip – Creating a land area without taking up valuable water space

For my Red Eared Slider I use 3 thick Perspex sheets, 2 which rest along the sides of the aquarium and another which sits on top. I then place a few rocks on the top sheet to give it a natural look and feel, you can also use Astroturf and soil to complete the look.

Using this method I am able to provide a resting and basking spot whilst still giving my turtle a full body of water to swim in.

One thing to make sure of is that your turtle can easily reach dry land, a strategically positioned large rock will help to achieve this and give your turtle something to help him or help on to dry land.

What you will need (as a minimum):

1) A Large Aquarium

Although your turtle may start out small and cute they do grow incredibly quickly. For this reason it is very important to buy the largest aquarium you can afford and accommodate. This way you will not have to replace the aquarium as the turtle grows.

To calculate the size of the aquarium which your turtle will need as a minimum you should take the length of the shell of the adult turtle and multiply it by 5. The resulting figure gives you the minimum width of your aquarium. If you take the length of the adult shell and multiply it by 3 this gives you the minimum depth and height of the aquarium.

For example a 6 inch (15cm) long shell would need an aquarium 30 inches (75cm) wide, 18 inches (45cm) deep and 18 inches (45cm) high. Keep in mind this is only a minimum, the aquarium can never be too large and the bigger it is the happier your turtle will be. If you wish to keep more than one turtle you should increase the resulting size by around 30%.

Recommended Terrapin Tank



Ciano Tartarium 60 Turtle Terrapin Reptile Glass Tank with Ramp

- Tartarium 60 Turtle Terrapin Reptile Glass Tank with Ramp
- The tartarium 60, terrarium glass, is equipped with supports and dry zone in high quality white plastic with high gloss finish Open top design for your turtle and for optimal exposure to heat, essential to their well-being and growth.
- Aquarium Dimensions L60 x W29.6x H19.5 cm RAMP DimensionsL22.5 x W13 x H15.7 cm

[>Check Price On Amazon](#)

2) A Powerful Filtration Unit

Power filters can now be bought in all manner of shapes and sizes to fit your particular aquarium set-up. Be aware that under-gravel filters are unsuitable for turtles because they suck and store all the contamination in to the gravel where they continue to pollute the water. Turtles are very messy eaters and so an internal or external power filter is the only way to go.

Internal Power Filters

An internal power filter consists of a small, submersible water pump which draws the water through a sponge or piece of foam, thus removing any particles and dirt. These are very effective and easy to clean, the drawback though is that they take up room in your aquarium and can easily be dislodged by large turtles.

You can easily lay these types of filters on their side to reduce the depth of water they need (since a turtle aquarium will never be full of water if you have a land area).

External Power Filters

External power filters work on the same principle as internal ones – pumping water through a sponge or some foam. The difference is that they are external to your aquarium which helps free up space and avoids your turtle dislodging the filtration unit.

Each external power filter has one tube which takes the dirty water from the aquarium to the filter, and another which takes the clean water from the filter back to the aquarium. External power filters are more expensive than internal ones and can be harder to clean. However, if you are pushed for space then an external power filter is a great choice for helping to keep your aquarium clean.

Recommended Terrapin Tank Filter



Fluval U3 Underwater Aquarium Filter 150L (40 US Gal)

- Top Access - for easy maintenance
- Adjustable flow control
- 3 Stage Filtration



1,430 Reviews

[>Check Price On Amazon](#)

3) An Aquarium Heater

Depending on where you live in the world and the type of turtle you have you may need the use of an under-water heater. This will help you keep the water temperature at the correct level as described in the [turtle profiles](#) section.

Be aware that turtles will always try and get as close to heat as possible, therefore it is a good idea to buy a heater with a guard to protect your turtle from nasty burns.

Recommended Terrapin Water Heater



HITOP Adjustable Aquarium Heater with Protective Cover, 25W 30W 50W 100W 120W Fish and Turtle Tank Heater for 5L to 120L Fresh Water and Seawater water Thermostat (50W)

- Safe: We adopt 2mm thickened explosion-proof glass, 33% thicker than normal aquarium heaters, more durable, much safer for both human and animals.
- Double Protection: Protective cover wrapping the heater tube, triangle streamlined design, full of modernity, not only double safety, but also space-saving and beautiful in your aquarium.
- Easy to Set Temperature: After set the temp you want, due to the automatic switch device and temperature detection system, aquarium heater will turn off automatically when its temp reaches your pre-set, also will turn on when lower than it, safe and easy adjustment.

[>Check Price On Amazon](#)

4) Suitable Lighting

All turtles need some form of lighting in an indoor aquarium. The use of a spot lamp over the land area of your aquarium will provide heat and light for your basking turtle. In addition you may decide to use a suitable UV light above the water to provide further heat and light across the full aquarium.

You should always ensure your turtle cannot touch the lighting otherwise it will be left with serious burns. It is also essential that you place some kind of heat-resistant cover over any lighting since, like with all light bulbs, if cold water is splashed on a hot bulb it can instantly shatter and cause nasty injuries to both yourself and your turtle.

Recommended Terrapin UV Light



LEDGLE 50W/75W Heat Lamp with Lampshade, UVA/UVB E27 Heat Lamp Bulb, for Reptile Turtle Chicken Coop Lizard Snake

- 1. Widely used: Suitable for all types of reptiles that need to warm up such as lizards, turtles and other reptiles. Provides warmth to your reptiles in cold weather and for healthy turtle growth. Provides essential UVB and UVA to promote their health.
- 2. Protective cover: The lamp cover plays a protective role and can effectively prevent animals from being scalded during use.
- 3. E27 lamp base & double bulbs: Equipped with 50W and 75W lamps, which can be changed as needed. One of the most common lamp sockets that you see in your home. You can easily find a suitable lightbulb to use with.

[> Check Price On Amazon](#)

Gravel, Sand and Rocks

Although gravel and sand is not essential it can help to maintain the quality of the water and provide your turtle with a more natural environment, plus it makes your aquarium nicer on the eye.

Some people decide that a bare bottom aquarium is best since this allows them to simply 'fish' out any faeces and uneaten food and maintain the quality of the water that way.

Sand or gravel is recommended though especially if you have a turtle which is not a naturally good swimmer. In this case sand and gravel will help provide grip for your turtle when pushing itself along at the bottom of the aquarium.

Rocks or at least some aquarium ornaments are recommended for all types of aquatic and semi-aquatic turtles. If there is nothing in your aquarium except a land area and water then your turtle may become quickly bored and frustrated in its surroundings.

It is not recommended that you place real plants in a turtles aquarium simply because turtles will usually eat real plants. You may try plastic plants instead, but, if your turtle tries to eat them, they should be removed at once since plastic is not good for a turtles diet!

Before purchasing your turtle you should ideally have the aquarium fully set-up, including water for at least 7 days. This allows the water to reach the right temperature but more importantly allows the correct nutrient balance to establish. This means when you add your turtle it is immediately in the right conditions for a happy and healthy life.

Setting up a Home for Land Turtle

In many ways it is much easier to set-up a home for a land turtle. There is no requirement to use an aquarium and water quality is not an issue. However it is still important that you take the individual needs of your turtle in to account. Remember that land turtles will need some water in their enclosure to drink from. You should ensure the turtle can easily reach the water with its mouth but that the water is not deep enough to cause your turtle problems should it fall in.

What you will need (as a minimum):

1) A Suitable Container

This could be made from glass, wood or even plastic, the important thing is that the sides are high enough to prevent your turtle from climbing out. If kept outdoors then a wire mesh or clear plastic around the enclosure is essential to stop your turtle being attacked by predators such as large birds, cats, and other animals.

If you are keeping the turtle indoors with other pets such as cats or dogs then you will also need to ensure the turtles enclosure is fully secured.

The larger the container the better, turtles are very inquisitive creatures and love to explore. Therefore if you can provide a large enclosure with varied terrain your turtle will live a much happier life.

2) Suitable Heating

If kept indoors then you will need to provide your turtle with an environment that reaches the temperature needed by your turtle. This can be achieved through a heat lamp or even a heat pad to line the bottom of your turtles enclosure.

Heat pads are freely available from specialist reptile stores and can even be placed underneath the rocks, soil or sand to provide heat without being unsightly.

If keeping your turtle outdoors then you need to be aware each day of the outside temperature. Should it ever dip below what is comfortable for your turtle you should either move your turtle inside to achieve the correct temperature or make use of outdoor heat pads and lamps.

3) Suitable Lighting

When kept outdoors your turtle will benefit from the natural sunlight, thus removing the need for artificial lighting. However, when your turtle is indoors you will need a suitable UV light to provide the lighting your turtle needs.

4) Soil, Sand, Rocks, Plants and Bark

Depending on the species of land turtle you own you will need to set-up an enclosure that mimics the turtles natural habitat as closely as possible. This may mean lots of soil, plants and bark to replicate woodland conditions or it may mean lots of sand, gravel and rocks to replicate a river-side environment – it may need a mixture of both.

It is up to you to find out the exact conditions your turtle needs and to provide an enclosure that gets as close to this natural environment as possible.

Where to Place your Turtles Home?

The positioning of your turtles enclosure, be it indoors or outdoors, aquatic, semi-aquatic, or land is crucially important. A correctly positioned home will help your turtle to stay healthy and avoid some of the many diseases and illnesses that can affect your pet.



Rooms with large windows are ideal as this increases the amount of natural light your turtle will see. However care should be taken to avoid direct sunlight as this can cause variances to the water temperature and promote excessive algae growth.

Even in light rooms you should still provide artificial lighting in the form of UV lights since the amount of natural light will not be enough to keep your turtle healthy.

Turtles are easily disturbed by noise and vibrations as well as sudden movements. Therefore you should avoid placing your turtles home close to household appliances such as washing machines, TVs, and stereos which emit sound or vibrations.

In addition you should also take care not to make sudden movements near your turtle as this could frighten it.

Drafts are also harmful to turtles since they can cause the temperature to change quite suddenly. Therefore you should not place your turtles home next to doors or windows and should avoid placing its home directly on the floor.

Finding a Suitable Place Outdoors

The main consideration for a turtle outdoors is that its environment suits the species, the temperature conditions are correct and it cannot escape or be attacked by wild predators.

However, you may also wish to avoid placing your turtle underneath trees where branches could fall and injure or even kill your turtle. You may also wish to place your turtle close to your home so that you can keep a close eye on it and take care of it with much more ease.

Transporting a Turtle

When you purchase your turtle the store or breeder you buy it from should provide you with a suitable container to transport your turtle home. Where possible you should avoid transporting your turtle, especially over long distances or during cold weather. Remember, keeping your turtle warm and safe is your highest priority.

When travel is essential (such as a visit to the vet) there are two ways you can safely transport your turtle:

1) The Polystyrene Box

My own personal and favoured method for transportation is a polystyrene box. It should be at least 0.5 inches thick (1.25cm) since this provides good insulation against the cold and is also much harder for your turtle to dig out of.

Simply make a few air holes in the lid to allow your turtle to breathe and when you wish to transport your turtle place a hot water bottle filled with warm water (around 86F or 30C) at the bottom.

Then, take a newspaper and soak it in warm water and scrunch up each sheet to line the box. This will then act as a source of moisture, warmth and protection. Then tape the lid closed and ensure your turtle cannot escape. You can then wrap the box in a blanket to add extra protection from the cold.

I have transported my turtle using this method for journeys of up to 8 hours without any problems.



2) The Transportation Tank

If you can't find a suitable polystyrene box, don't worry. You can buy a plastic transport tank for just a few pounds. the advantage is you can also use it as a safe tank to put your terrapin while they eat (to reduce mess in the main tank) or for while you clean their main tank.

The method is the same, use lots of scrunched up newspaper that's been made wet with warm water.

Recommended Terrapin Transport Tank



Ferplast Plastic Fish Aquarium GEO Large Aquarium Tank 6 Container for Small Animals Terrarium Insects Turtles, Sturdy Plastic, Ventilation Grills, Handle for Easy Transport, 30 x 20 x h 20,3 cm Blue

This is the same transport tank I use for Terry. He's successfully completed no less than 9 house moves like this. The lid is reasonably secure but offers good airflow and the size is just right for him. You want the transport tank to be only slightly bigger than your terrapin. This will keep them comfortable yet secure (plus a smaller tank is easier to transport!).

[>Check Price On Amazon](#)

Ongoing Care for your Turtle

If you have chosen your turtle and set-up its home the correct conditions it needs to thrive then you have taken the first step towards providing your turtle with a long and happy life. A well cared for turtle will provide you with an interesting an entertaining pet for many years. In this chapter we will look at the essential ongoing care your turtle will need.

Feeding a Healthy Diet

Just like humans, a turtle will always like certain foods more than others. However, the food it likes the most will not necessarily be the food that is best for it. A turtle needs a varied, nutritious diet to live a healthy life.

Your first step is to establish whether your turtle eats meat, vegetation, or both. The [turtles profiles](#) section of this guide will help you establish the diet your turtle needs.

If your turtle is aquatic or semi-aquatic you should always feed it in the water. Turtles are very messy eaters so in order to maintain water quality, it is recommended that you feed your turtle in a separate aquarium to its main living quarters.

Meat & Fish

Meat should never be the only part of your turtles diet, however it is a very tasty treat and helps to provide a varied diet.

You should stick to low fat meat where possible such as chicken, heart, reduced or fat-free ground beef or pork, and small fish such as shrimps, guppies and even filleted chunks of trout.



Ensure that any meat is small enough for your turtle to eat whole or easy to tear apart.

Your turtle may also enjoy water snails which you can breed in a separate aquarium and feed to your turtle for the occasional treat. Earthworms dug up from your garden can also be a tasty treat for most turtles.

Vegetation

Turtles will eat a wide range of plants which is why if you place plants within the aquarium they will often become uprooted and eaten. Some of the plants your turtle will eat include herbs such as parsley, lemon balm, and basil.

Your turtle will also eat certain vegetables such as green beans, celery, cauliflower, broccoli, sprouts and carrots. Some fruits can also be fed to turtles such as pears, apples, strawberries, blackberries, blueberries, raspberries and bananas.

To establish which vegetation your turtle will eat simply try a small piece of the vegetation – if your turtle likes it will eat it and you can give it some more.

Commercial Dried Food

One way to ensure your turtle receives a balanced diet is to feed it one of the several commercial dried turtle foods that are available from your local pet store. The dried food should never make up all of your turtles diet but it can for a good base to the diet.

Depending on the size of your turtle you may need to break some of it up (especially vegetable pellets) in to smaller pieces to allow your turtle to eat it.

The advantage of commercial dried turtle food is that it usually floats on the water's surface. This means you can easily scoop out any left-over's to avoid polluting the aquarium.

Recommended Terrapin Food



★★★★★
738 Reviews

Supa Turtle & Terrapins Food Superior Mix 1 Litre Bucket | Made Using Premium Quality Natural Ingredients

- Supa Turtle Food 1 Litre (Pack of 1) is a nutritionally balanced and delicious turtle food.
- Best fed as a complementary food in conjunction with freshly prepared foods.
- The Turtle Food contains only the highest quality natural ingredients: River Shrimp, Shrimp Flakes, Gammarus & Freeze Dried Tubifex.

[≥Check Price On Amazon](#)

Additional Dietary Supplements

There are several commercial dietary supplements available for turtles. These supplements provide minerals and trace elements that are essential for a turtles healthy growth and development.

Calcium is also very important for maintaining a healthy shell – especially when your turtle is still growing. There are various ways you can add calcium to your turtles diet:

1) Cuttlefish

A common treat for pet birds such as budgerigars, cuttlefish can also be fed to turtles to increase their calcium intake. Simply break a small part of the cuttlefish off and place it in the aquarium. Your turtle will nibble on it as and when it feels like it.

2) Ground Eggshells

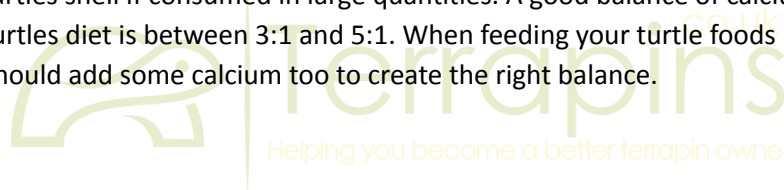
Another way to add some extra calcium to the diet is to add ground eggshells amongst the normal food you feed your turtle.

Ensure that the eggshells are well ground though, any large pieces of eggshell can be sharp and cause your turtle an injury.

3) Special Pet Store Preparations

Most good pet stores stock a special preparation of calcium which can be fed easily to turtles. If you do not see anything suitable on the shelf ask a member of staff.

Note: Bananas, tomatoes and peaches are all high in phosphorus which can cause MBD (rickets) and weaken the turtles shell if consumed in large quantities. A good balance of calcium to phosphorus in a turtles diet is between 3:1 and 5:1. When feeding your turtle foods high in phosphorus you should add some calcium too to create the right balance.



Feeding the Right Amount

Young freshwater turtles will need feeding one or two times daily whereas adult turtles only need to be fed every other day. Whenever you feed a turtle you should only give it half the amount of food it can eat in one meal.

To establish how much this is you can let your turtle go without any food for two days (one day for young turtles) and then weigh or measure a good amount of its favourite food.

Feed the turtle until its first eagerness subsides and it starts to become more selective or slow in its eating. Stop feeding and work out how much it ate and then feed half of this amount in future.

To determine if you are feeding your turtle the correct amount you should weigh it regularly and record its weight on a chart. Young turtles will be growing and should become heavier in proportion to their size. Adult turtles whose growth is either very slow or complete should be maintaining their weight.

If your adult turtle loses a significant amount of weight you should increase the amount or frequency of its feeding, if it gains weight then you should reduce the amount or frequency of feeding.

Excessive weight loss can also be a sign of illness, if in doubt take get it checked out by your vet.

Grooming your Turtle

Turtles need very little grooming but it's still a good idea to purchase a few simple tools to help maintain your turtles health and appearance:

1) A Disposable Syringe (Without Needle)

A syringe without a needle is very useful for administering any liquid based medication your turtle may need.



2) Tick Pullers

Although turtles kept as pets very rarely become infested with ticks it can happen – especially if keep your turtles outdoors for any period of time.

Tick pullers can be purchased from any good pet store.

3) Claw Clippers

If a turtle does not walk around enough or if the ground is too soft it may need its claws trimming occasionally. It is best to have your vet show you how to correctly trim your turtles claws before you attempt it yourself.

It is important to note that some male turtles (such as red eared sliders and painted turtles) have very long claws that should never be trimmed. These are a natural sex characteristic and are important for courtship. When approaching a female these turtles will vibrate their claws and tickle the female to begin courtship.

On rare occasions the horny beak around the turtles mouth may become too long if the turtles diet contains only soft food. The excess can be filed down by a veterinarian, however, be aware that some turtles such as the painted wood turtle naturally have a hook on their upper jaw to aid with climbing.

Caring for your Turtle whilst on Vacation

Although a healthy adult turtle can go without food for a day or two if you plan to go away for longer you should arrange for someone to care for your turtle well in advance.

Ideally the carer should be able to visit the turtle every day in your home – where possible you should avoid having to take the turtle out of its normal surroundings.

It is important you fully trust the person you leave responsible for your turtles care as this will put you at ease during your vacation. Ensure that they are aware of basic care for your turtle and understand its normal behaviour so they can spot if something is wrong. Make clear how important heat, light and clean water is to your turtles health.

You should show them how all the equipment works and how to use it such as the cleaning of a filter. Make sure you leave them replacement bulbs and filter cotton and show them where the fuse box is in case there is an electrical problem while you are away.

Leave them instructions for what, when and how much to feed your turtle. It is a good idea to portion out the food for your turtle in to separate bags or compartments. This will ensure your turtle is not under or over-fed while you are away.

Finally leave them your contact details such as your cell phone number, address of the hotel, etc in case they need to ask you anything while you are away.

It is also recommended that you leave details of your veterinarian such as a telephone number, address and directions for how to get there. You may wish to leave them some money to cover any emergency vet care that is needed.



Helping your Turtle Hibernate Safely

Some turtles whose natural habitat is subject to cold weather during winter go in to hibernation. However, not all turtles that are kept as pets will need to hibernate even if they would naturally do so in the wild. Please refer to the [turtles profiles](#) section of this guide to find out if your turtle needs to hibernate.

During hibernation a turtles heart rate and breathing slows down, their metabolism slows down and they hardly move at all. Like all hibernating animals turtles live off their fat reserves and a healthy turtle should have no problems hibernating successfully in the right conditions. You should not feed a turtle during hibernation.

How to Spot when your Turtle is Ready to Hibernate

Even if you have never seen a turtle go in to hibernation it is fairly straight forward to spot the signs that your turtle is ready. In October as the length of the day and strength of the sun decreases, turtles begin to lose their appetite and become more sluggish in their movements.

They spend less time swimming and more time lazing around in the darker areas of their home. If keeping your turtle indoors you can encourage hibernation by changing the conditions to match the natural conditions.

As the days get shorter and reduce the amount of time you have lighting on in the aquarium and slowly begin turning the temperature of your turtles heating down.

Once your turtle begins showing signs it is ready for hibernation you should stop feeding it. It can take a turtle up to a week to fully digest food and empty its bowels so before hibernation can begin the turtle should have gone 7 days without food.

You should always weigh your turtle before putting it in to hibernation and keep a record of its weight. When your turtle comes out of hibernation you will need to weigh it again and if it has lost more than 10% of its body weight you should take it to the vet for a check-up.

NEVER put an unhealthy turtle in to hibernation as a sick turtle is unlikely to survive. If you have any doubts about the health of your turtle you should take it to a vet before even considering hibernation.

Hibernating an Older Turtle

Even if your turtle is older and hasn't hibernated for a number of years it may still be possible to put it in to hibernation. Simply turn off the heating and lighting in the aquarium and wait to observe your turtle becoming more sluggish and losing its appetite.

If your turtle still does not respond you can place it in to its hibernation quarters for a week. If after a week it has still not gone in to hibernation then observe it carefully and weight it regularly. If it loses more than 10% of its weight in two to three weeks then you should take it to the vet for a check-up and avoid putting it in to hibernation.

A healthy turtle will hibernate within two to three weeks even if it has not hibernated for a number of years.

Providing Suitable Hibernation Conditions

When your turtle is ready to go in to hibernation you need to ensure you can provide it with the correct conditions for a safe hibernation:

Natural Hibernation:

If you keep your turtles outdoors in a seasonal location it is often quite easy to hibernate your turtle as it will do it naturally. Eastern, Three-toed, Ornate, and Desert Box turtles are prime contenders for natural outdoor hibernation. These turtles will find a suitable place on land to hibernate.

To help your turtle out all you need to do is observe it carefully and ensure that the hibernation spot it chooses is not in an area prone to flooding. You should also ensure it digs deep enough underground to avoid any cold frosts.

Artificial Hibernation:

Your first job is to find a place in your home that is cool enough at all times, this could be a cellar or even a modified refrigerator. To make your refrigerator suitable to house a hibernating turtle you should turn off the light that comes on when opening the door and ensure the turtle will be secure.

The refrigerator should be set up to maintain a temperature of between 40-44F (4.4-6.6C).

You should place each aquatic or semi-aquatic turtle in a small plastic box filled with moist, unmilled sphagnum moss. The vegetable bin or salad box compartment of your refrigerator may serve the purpose well. The moss acts as an artificial mud-bottom.

The water level in the compartment should be shallow enough that a turtle can site at the bottom and crane its neck out of the water to breathe. The water temperature should be between 34-54F (1-12C). If the water temperature goes above 54F (12C) for too long, the turtle may come out of hibernation too soon.

You will need to change the water every three to four weeks to stop your turtle becoming ill. If the water turns yellowish or a whitish film forms on the surface you should change the water immediately. It is a good idea to put a fresh bowl of water in the refrigerator or cellar for several hours before changing the water. This will ensure the water stays at the same temperature during water changes.

Bringing your Turtle out of Hibernation

You should avoid purposefully bringing your turtle out of hibernation. A turtle will naturally awaken from hibernation when it is ready.

The length of hibernation depends on the type of turtle you own. Most turtles hibernate for between 4-6 months but you should ask a specialist for the exact period of hibernation your turtle needs.

You should check on your hibernating turtle every few days, increasing that to at least twice a day when you are expecting your turtle to awake. Once it does awake you should move its hibernation quarters to a warm room (72F or 22C) and wait until the water has reached room temperature.

Once the water is at room temperature you can place the turtle back in its normal living quarters. You should ensure the water in its normal living quarters is at room temperature – no heating should be used at this stage.

Once back in its normal living quarters you should begin to slowly increase the temperature and amount of light your turtle sees over several days. After 2-7 days your turtle should resume its normal level of activity and have its appetite fully restored. If your turtle is still not behaving normally after this time you should take it to the vet for a check-up.

Breeding Turtles

Most turtles will breed whilst in captivity if they are given the correct conditions and care. The female should always be given enough vitamins and minerals within her diet and supplements to allow her to produce strong eggs.

You should also ensure you have the correct set-up to keep the hatchlings and plenty of food to help them grow and develop. Before breeding any turtles you should do some research as to how and where to sell any turtles you do not wish to keep yourself.

When do Turtles Breed?

The age at which a turtle becomes ready to breed depends very much on the species and the care they receive. Many North American turtles have the ability to breed from the age of 5. In contrast European pond and river turtles do not reach sexual maturity until they are between 10 and 12 years old. Most other species reach sexual maturity somewhere between these two extremes.

The mating season for tropical and subtropical turtles is generally between the end of April and the beginning of May.

In many turtles the male will regularly extend its penis whilst in the water. Since the penis in most species is a large black 'blob' like shape it can cause concern the first time you see it.

Many inexperienced turtle keepers mistake the penis for the turtle having trouble going to toilet or having a prolapse (where an internal organ slips out of the body).

However it is quite common and is nothing to be worried about. The picture above shows a turtle penis extended from the body.



Mating Behaviour

Most aquatic and semi-aquatic turtles prefer to perform their mating ritual within the water although some may start out on the land.

Aquatic turtles use the whole area of the water to perform their mating ritual. In species where the males naturally have long claws on their front feet (such as Red Eared Sliders), the mating ritual is started by the male swimming up to the female and vibrating his long claws around the females face and neck.

This is then followed up by vigorous sniffing of the other turtles scent. Each species has its own unique scent and mating behaviour which means interspecies breeding very rarely takes place in the wild.

In some species after the sniffing ritual, the male vigorously nods his head up and down and bites at the female as she hides her head in her shell. Finally the male grasps the edges of the females shell with his claws while the mating takes place.

If the female remains unresponsive or the male is excessively eager the female may become injured by the males biting. In this situation the two turtles should be separated for a few weeks.

Fertilizing the Eggs

The male will have already formed and stored his sperm the previous summer. The female establishes her eggs in the previous summer and completes their development in spring. Hibernation does not negatively affect the ability to mate successfully.

Before the shell of the eggs are formed they are fertilized by the male. It may come as a surprise to learn that females can give birth up to 3 years after a mating has taken place!

This explains why occasionally, people buy an adult female and keep her on her own only for her to lay her eggs a couple of years later.

Tips for Successful Mating

To help maximize the chance of a successful breeding pair there are a few things you can do.

1) Individual Hibernation

If your turtles are from a species that requires hibernation ensure that each turtle hibernates separately to the others.

2) Keep Outdoors

If possible, keep a breeding pair outdoors during summer. This will almost guarantee a successful mating.

3) Keep the Turtles Separate for 1-2 Months

This is especially needed if you keep your turtles indoors. If you part the turtles for 1-2 months before you plan to breed them, taking care to ensure they cannot see or smell each other, the chances of a successful mating is drastically increased.

4) Reduce and then Increase the Artificial Lighting

Three months before you plan to mate your turtles you should decrease the amount of artificial light in their aquarium to around 6 hours a day. After two months increase the lighting gradually over 3-4 weeks up to a maximum of 12 hours of light a day. This helps to replicate the natural light during mating season.

5) Decrease and then Increase the Water Temperature

At the same time as you reduce the artificial lighting, reduce the water temperature by around 8-10F (4-5C). Turn off additional heat sources such as spot lamps and heating pads. At the same time you begin to increase the amount of artificial light you should begin to increase the water temperature too until it reaches the maximum recommended for your species.

6) Provide an Artificial Rain Shower

If your turtles spend a lot of time on land in the final week before an attempt at mating you should spray the aquarium and the turtles with a warm mist shower twice a day. This replicates the spring

rain showers and encourages turtles to get in to the mating mood. A plant spray will serve this purpose well.

Handling the Eggs and Checking if they are Fertilized

Once a successful mate has occurred the female will lay her eggs on the land (regardless of species). For this reason you should ensure your turtle has an easy accessible land area complete with damp sand that she can bury her eggs in. The sand should be at least as deep as the turtles shell is long.

Once the eggs have been laid you need to very carefully dig them up and remove them from the aquarium.

You should then place them in to small plastic containers half full with damp vermiculite. The containers with the eggs in should then be placed in an incubator.

To tell whether an egg is fertilized you can hold it upright between your thumb and forefinger in front of a bright light.

If the egg is fertilized you should be able to detect blood vessels inside even at an early stage. As time goes by the blood vessels will change in to a dark area as the turtle develops.

Unfertilized eggs will show a light area where the air pocket is inside the egg and a dark area where the drying yolk is. An unfertilized egg will also lose weight as time goes by whereas a fertilized one will gain weight.

If a turtle embryo dies in the egg do not assume its because of a mistake you have made during the mating process. The likely cause is a lack of nutrition in the parent turtles diet. In this case you should ensure your turtles have the right level of vitamins and minerals the next time you try to mate them.



Providing a Safe Incubation Chamber

The best way to provide a safe incubation chamber is to take a plastic aquarium and place two bricks on their side at the bottom. Fill the aquarium with water until it is just below the top of the bricks.

Place a plastic container which contains the eggs on top of the



two bricks and heat the water to 82F (28C) with an aquarium heater.

Cover the aquarium with a pane of glass to ensure the heat and condensation stays with the incubator. It is essential to ensure the glass is slanted so that any condensation does not drip directly on to the turtle eggs as this can kill the embryos.

The ideal humidity level for turtle eggs is between 95-100%. You can measure the level of humidity with a hygrometer hung by a wire on the aquarium wall.

This will then provide a warm, moist environment for the turtle eggs to thrive.

Caring for Baby Turtles

The amount of time it takes for a turtle egg to hatch depends on the species. Soft shelled turtle eggs hatch after around 30 days, painted turtles eggs can take up to 90 days and snake-necked turtle eggs can take up to 150 days to hatch.

Once it begins to hatch it can take between one and three days for a baby turtle to fully emerge from its egg.

You should never disturb a turtle that is hatching and never try to do anything to speed up the process. Leave the hatchlings in the incubator for a few days until the yolk sac on the navel has shrivelled and fallen off.

The hatchlings should be raised separately from their parents even though they require the same living conditions as their parents.

Baby turtles do not eat for around a week after hatching. This is because their metabolism is still adjusting from eating the yolk to being ready for solid food.

You should mince the food for baby turtles somewhat smaller than you would for an adult turtle. As with any turtle, be sure to feed babies a varied diet with the right vitamins and minerals. Be aware though that too many vitamins can be just as harmful as too little.

Looking after your Turtles Health

Although turtles are quite hardy creatures (you don't survive as a species for millions of years if you are not!) they are still susceptible to various diseases and illnesses. However, almost all health problems turtles experience come from improper care such as poor water conditions, an unbalanced diet, or incorrect water and air temperature.

Important Hygiene Measures

Water basins and the soil or sand around them are the perfect homes for parasites such as ticks or mites and bacteria such as salmonella. For this reason it is important to scrub the water basin clean regularly and to keep the soil or sand dry as much as possible. The water, soil and sand should be changed regularly.

In an aquarium for an aquatic or semi-aquatic turtle the water quality is of the highest importance. A good filtration system will help to keep water clean but this does not free you of any work.

Each week you should rinse out the foam or filter wool. This is done best when removing some of the water from the aquarium and rinsing the filter wool in that. This then preserves the good bacteria that builds up on the filter wool.

In addition you should change around 75% of the aquarium water every 2-3 weeks.

Always remember this rhyme – “The solution to pollution is dilution”. What this means is by taking out 75% of water and replacing it with a clean supply you dilute any pollution in the water and keep it clean for your turtle.

You can help to cut down on water pollution by regularly removing all uneaten food and any faeces with a net. You can also reduce pollution by having a small aquarium which you place your turtle in to feed it.

Ensure you thoroughly wash your hands after handling a turtle or any of its equipment to minimize the risk of transferring disease to yourself.

Common Turtle Health Problems

Because your turtle cannot speak to let you know if it is in pain or feeling unwell it is up to you to observe it closely and spot anything unusual. Changes in behaviour such as how active your turtle is or how much food it eats can be clear signs that something is wrong. If in doubt you should always consult a veterinarian. You should also read the free bonus First Aid for Turtles mini ebook you should have received when you purchased this guide.

Diarrhoea

Symptoms: Loose, slimy stools. Blood in the faeces is cause for alarm.

Possible Causes: Improper diet, fungal infection, worms

Treatment: Take the turtle to a veterinarian immediately with stool samples if possible.

Respiratory Distress



Symptoms: With extended neck and gaping mouth, the turtle makes cheeping, moaning or snoring sounds, in between it lowers its head in fatigue. Water turtles spend most of their time under the heat lamp breathing with their mouth open.

Possible Causes: Lung infection, constipation, difficulty laying eggs (females), gas in the stomach or intestines, bladder stones, edema caused by kidney or heart disease.

Treatment: Do not raise the temperature! This could raise the turtles metabolism and be potentially fatal. Instead take the turtle to a veterinarian immediately.

Swollen Eyes

Symptoms: Eyes are swollen or mostly closed, turtle rubs its eyes with its front legs.

Possible Causes: Foreign bodies in the eye, injuries, exposure to drafts, vitamin A deficiency.

Treatment: Take your turtle to the vet immediately. The vet will rinse your turtles eyes with a sterile solution and possibly inject vitamin A.

Shell Injuries

Symptoms: Shell is cracked or has fallen away, dark 'burnt areas' are evident

Possible Causes: Your turtle has fallen on to a hard surface such as rock, in the case of burns your turtle has got too close to a heat source such as a spot lamp or aquarium heater.

Treatment: Superficial abrasions of the top shell layer are harmless and will heal with time. If the wound is deep enough to reach the bone or even skin your turtle must be taken to the vet immediately. In the case of burns you should take care to ensure the turtle cannot get as close to the heat source again.

Mineral Deficiency

Symptoms: The turtle eats gravel or sand in large quantities.

Possible Causes: A lack of mineral intake, under-feeding.

Treatment: Replace sand and gravel with larger stones that are too large to fit inside your turtles mouth. Provide vitamins, calcium and trace elements in your turtles diet, ensure you are feeding your turtle the correct amount (see [feeding the right amount](#)).

Vitamin A Overdosage

Symptoms: Shedding skin until the skin is raw

Possible Causes: Too much vitamin A in your turtles diet.

Treatment: Only by a veterinarian. Turtle must be kept incredibly clean to prevent infection. Wounds must be coated with a healing ointment. Avoid vitamin A preparations for several months.

Vitamin D3 Overdosage

Symptoms: The turtles shell becomes soft, with bleeding at the seams between the shell plates.

Possible Causes: Too much vitamin D3 in your turtles diet.

Treatment: Veterinarian treatment is needed. Handle the turtle very carefully, provide regular mineral supplements, do not allow access to sand or gravel. Grind boiled eggshells and sprinkle them over the turtles food. Use vitamin D3 only in low doses and provide regular UV light.

Difficulty Laying Eggs

Symptoms: Unsuccessful digging and unproductive straining while attempting to lay eggs.

Possible Causes: Mineral and hormone deficiencies can cause difficulty in laying eggs. Other possible causes include an egg that is too large, malformed eggs, a kinked or even twisted oviduct, obstruction by sand, or a bladder stone.

Treatment: Only by a veterinarian. Do not delay treatment, condition is potentially fatal.

Procedure for Dealing with a Sick Turtle

- 1) Move a sick turtle to a quarantine area. Cleanliness is of the highest importance.
- 2) Act immediately to correct any contributing factors to the illness such as drafts, cold or improper diet.
- 3) Contact your veterinarian for advice or to administer treatment.
- 4) If necessary apply ointment or administer medicine.
- 5) Limit the amount of time your turtle is allowed to bask under a spot or UV light.
- 6) Only return the turtle to its normal living quarters when it has fully recovered and shows no signs of illness.
- 7) Avoid placing a sick turtle in to hibernation.

Turtle Behaviour and Activity

Turtles are naturally silent creatures although occasionally you may hear them hiss during the mating season or if you are handling them too roughly. Noisy breathing could be the sign of a respiratory ailment and should be checked out by a veterinarian as soon as possible.

As with any pet you should become familiar with your turtles normal body language and behaviour. This helps you to understand your pet since it cannot talk to you and is essential for spotting any potential health problems your turtle may have.

Body Language

A turtles body language can tell you a lot about how your turtle is feeling and whether they are happy in their surroundings. Here are a few of the things to look out for:

Pacing or Swimming Back and Forth

If your turtle is constantly swimming back and forth along the side of its enclosure, or if it is regularly trying to climb out of its enclosure your turtle may not be happy in its surroundings.

You should check the [turtles profiles](#) to establish the right living conditions for your turtle. Is the water and air temperature correct? Is the amount of water and land space right? Is the current in the water too strong or too weak? These are all questions you need to ask yourself.

If your turtle has just been placed in to a new environment it may swim back and forth as it explores its new home. After a day or two it should have calmed down. Swimming back and forth can also be a sign that your female turtle is ready to lay her eggs and is searching for a suitable egg deposit site. In this situation refer to [the breeding section](#) to provide the right conditions.

Digging in the Ground

If your female turtle keep scraping or digging at the ground with her rear legs she may be trying to lay her eggs.

This behaviour can even be observed if there is no earth or gravel to dig in. Provide a suitable site for her to deposit her

eggs as [detailed here](#).

If you have a male turtle this activity could mean that your turtle is searching for food.

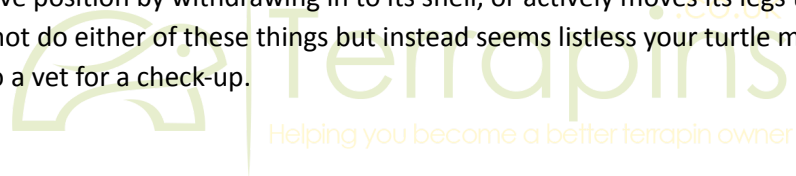
This is normal but if your turtle is constantly looking for food you may wish to double check if you are feeding it the right amount (see [here](#)). Take care to ensure that your turtle is not trying to eat the gravel or stones, this can be a sign of a [mineral deficiency](#).

Stretching out Flat on all Fours

If your turtle lays under the spot or UV lamp on dry land with all of its limbs extended outside of its shell it is nothing to worry about, your turtle is simply sunbathing.

Sometimes turtle will lay their head flat on the ground and close their eyes when sunbathing, although this may look like your turtle is sick it is completely natural and nothing to be concerned about.

If your turtle spend all day sunbathing then you should be concerned. Pick it up and see if it either assumes a defensive position by withdrawing in to its shell, or actively moves its legs to try and escape. If it does not do either of these things but instead seems listless your turtle may be sick and should be taken to a vet for a check-up.



Standing Tall, Legs Extended, Head Held High

When your turtle is standing tall with its legs extended and head held high it is assuming a posture so that it can take a good look around. On land this position also makes it easier for your turtle to empty its bowels and in water it may be reaching its head out of the water to breathe. This is perfectly normal behaviour.

Withdrawing Limbs in to Shell Suddenly

If your turtle suddenly withdraws its limbs inside its shell then it has been alarmed and should be left alone for a few minutes until it relaxes again.

You should avoid any sudden movements to prevent alarming your turtle.

Ramming another Turtle with its Shell

The aggressor may approach the other turtle diagonally from the front, perhaps nipping at the other turtles legs or neck. A male turtle often does this to a female to initiate a mating session. If the aggression leads to injuries you should separate the two turtles.

Burrowing in to the Ground

If your turtle burrows in to a hiding spot and has also stopped eating it may be showing signs it is ready to start hibernating. This happens in autumn when the days are shorter and sun is low in the sky. At other times in the year this behaviour can indicate a problem with the turtles health and you will need to take it to the veterinarian for a check-up.

Laying on its Back

If your turtle falls when trying to climb it may land on its back. Although it may look like your turtle is struggling it should be able to flip itself back over by itself. If the turtle is laid on its back for an extended period of time you should step in and help it out.

The Senses

Turtles have a well-developed sense of smell using it during mating and also when decided what food it will eat.

Aquatic turtles can smell just as well under water as they can on land as they use their sense of smell to navigate.

Vision is also one of the turtles strongest senses, allowing the turtle to detect potential food and danger from afar.

When up close it relies more on its sense of smell but its long distance vision is very good.

One of the turtles weaker senses is its hearing, detecting low-pitched sounds the best. Your turtle is also able to detect vibrations which is why you should not place your turtles home near anything which causes excessive vibrations.

It is very difficult to identify a turtles ears since they do not have an external ear. The ear drum lies directly below the skin (slightly behind the jaws) and is usually covered by leathery skin or scales.

The Turtles Shell

One of the most distinguishing features of a turtle is its shell, with each species having its own unique markings and characteristics. The shell is mostly made up of living material. Bony plates constitute the supporting structure of the shell, made up of areas of ossified skin, fused together with parts of the vertebrae, ribs and shoulder girdle.

The shell is therefore an integral part of the turtles skeleton – a turtle could never be removed from its shell.

The bone structure of the shell is covered by a sensitive membrane of connective tissue which protected only by the horny plates (scutes). The horny plates are the only part of the shell which are dead tissue and comparable to that of a humans fingernails.

You should take care when cleaning a turtles shell, the crevices between the horny plates are highly sensitive and should not be scrubbed or scratched. The plates on a turtles shell may grow thick and bumpy with age.

It is also normal and healthy for many aquatic species to regularly shed their skin and shell plates.

However in some species (especially land dwelling turtles) such shedding can be a sign of disease. A turtles shell should never become raw and tender during shedding.

Some turtles such as the box turtle have hinged joints within their shell.

This means that when they are attacked by a predator they can close their shell up completely – leaving no skin exposed. This is compared to other turtles which simply withdraw in to their shell with their leathery skin still visible and accessible.

Soft-shell turtles have a distinctively reduced shell. The flat bony carapace is covered only by a tough leathery skin with no plates. Most of the underbelly is only covered with skin. For this reason you should take extreme care when handling or cleaning a soft-shell turtle.

What makes soft-shell turtles amazing is that they can actually breathe through their skin even when buried in sand. As a result soft-shell turtles are very sensitive to dirty water and shell injuries which can easily become infected. That is why soft-shells are only recommended for experienced keepers.

The colour of the shell of your turtle will probably change over the years that you have it. For example as a Red Eared Slider gets older, their shell markings begin to become less obvious and less vivid than when it was younger. This is perfectly normal and should not cause you concern.

Training a Turtle

Believe it or not it is actually possible to train a turtle to your touch. As with any pet this will take a little effort and patience on your part but it will pay dividends in the long run with a friendly, fun and entertaining pet. You must ensure you provide the right living conditions to ensure your turtle is happy otherwise it will be very difficult to train your pet.

Take Advantage of its Natural Tendencies

Turtles are very intelligent creatures and can learn quite quickly. You may have success in training your turtle to respond using a specific sound. Remember that turtles do not have strong hearing and response to low-pitch tones the best.

Therefore if you play low notes on a musical instrument and reward your turtle with a tasty treat you may be able to train it to respond to that sound.

You will need a great deal of patience to achieve the response you desire, like all animals each turtle has its own personality and some may never master this trick.

You can also keep your turtle active in both mind and body by feeding it live food such as small fish and tubifex worms. Some of these treats will even seek out hiding places around the aquarium making your turtle rely on its natural hunting instincts. Keep in mind that although feeding live food is completely natural, some people may find it cruel.

Taming a Turtle to Your Touch

Turtles can have quite a nasty bite on them; although they do not have teeth, they do have a sharp beak like mouth and very strong jaws.

For this reason you should be very careful when handling a turtle but this is one of the best reasons for taming your turtle to your touch.

You can start to get your turtle used to your touch by hand feeding it its favourite food. Simply hold the food between your thumb and forefinger and hold it out for your turtle. If feeding an aquatic turtle then hold the food at the surface of the water.



It is important that you keep your hand very still otherwise you may scare your turtle and make it wary of you in the future. The turtle will sniff cautiously at the food (which will smell a little like your hand) and then when it is ready it will take the food from your hand.

Most turtles will soon become accustomed to your hand and to you as a person and will start to associate your arrival with something good to eat! Turtles are naturally wild animals though and some may never lose its natural wariness around you.

Using a Mealworm Machine

One of the most entertaining activities you can provide your turtle with is a mealworm machine. Simply take a plastic tube about 8 inches (20cm) long and drill a row of holes $\frac{5}{64}$ inch (2mm) in diameter along it.

Put several live mealworms in the tube and plug each end with a cork. Then hold the tube a few inches above the water in your turtle's aquarium.

The mealworms will crawl around the tube until they find one of the holes and then crawl through the hole and drop in to the water.

Your turtle will then pounce on the mealworm and enjoy a tasty treat. Because your turtle doesn't know when the next one will drop it will hover nearby patiently waiting for its next snack.

Be careful not to overfeed your turtle on mealworms – they are a treat and should never be a major part of the turtle's diet.

Summary

Turtles make fantastic pets that will provide you many years of entertainment when cared for correctly. Remember that turtles can live for a long time in the right conditions (up to and beyond 30 years!).

Therefore it is essential that you have well-thought through whether a turtle is the right pet for you before you buy it.

Each turtle species has its own unique characteristics and care needs and it is very important that you fully research what your turtle needs to stay happy and healthy. This may mean buying some expensive equipment, at least at the start and for turtles which can reach large sizes a big aquarium or living space will be needed.

In addition you will also need to ensure you provide the right heating and lighting as per your turtles needs. Your local specialist, veterinarian, or breeder should be able to advise you on the exact requirements for care your species has.

Take care to establish if your turtle needs to go in to hibernation and make the relevant arrangements to ensure you can provide everything it needs. Remember that an unhealthy turtle should never be put in to hibernation and you may need to make several trips to the veterinarian over the course of your turtles life.

Turtles need a varied diet which includes all the vitamins and minerals it needs. It also needs a clean and suitable environment if it is to avoid becoming sick. These are two most important aspects for owning a turtle – the right diet and good hygiene and maintenance.

If you choose to breed turtles you must be sure that you not only are able to provide the right conditions for the parents, but also that you can correctly care for the eggs and hatchlings. This may mean buying some extra equipment.

Remember at all times turtles are wild animals and therefore care should be taken around them (particularly with young children) to avoid any injuries to yourself or the turtle. That said, turtles can be tamed to the touch and can be very entertaining to watch.

If you decide to keep a turtle as a pet and provide all the correct care, you will be rewarded with a loveable and entertaining pet that can become a centrepiece for your home.



Best Buys

There are many weird and wonderful products you can buy to brighten up your turtles life. Below I look at some of my favourites.

Recommended Terrapin Ramp



LFS Turtle Bank Turtle Floating Basking Platform Dock Terrapin Basking Tray

- 🐢 New turtle bank floating basking platform (24 x 20 cm)
- 🐢 Suitable for small size turtles, salamanders, ceratophrys, terrapins and other aquatic pets
- 🐢 Platform with inclined ramp provides your pet rest, playing and feeding

[>Check Price On Amazon](#)

Recommended Terrapin Water Conditioner



Zoo Med WC-4 Repti Safe, 125 ml

- water treatment
- reptiles, turtle, lizard, arachnids
- Water conditioner

[>Check Price On Amazon](#)

Turtle Quiz

Questions

- 1) How large can a Red Eared Slider grow?
- 2) Name one semi-aquatic turtle that is commonly mistaken as a land turtle
- 3) Where can you buy turtles from?
- 4) When is the best time to purchase a turtle?
- 5) Name the 5 things you will need as a minimum to keep an aquatic or semi-aquatic turtle
- 6) Name the 4 things you will need as a minimum to keep a land turtle
- 7) Name 3 ways in which you can add calcium to your turtles diet
- 8) What 2 methods can you use to transport your turtle?
- 9) How long can you transport your turtle for in:
 - a. A polystyrene box
 - b. A cardboard box
- 10) What 3 basic grooming tools will you need?
- 11) How do you check if a turtle egg has been fertilized?
- 12) What are the 2 major signs your turtle is ready to hibernate?
- 13) What are the 3 main things you can do to keep your turtle healthy?
- 14) What should you do if your turtle has diarrhoea?
- 15) What are the possible causes of swollen eyes?
- 16) How can you tell if your turtle is not happy in its environment?
- 17) What are a turtles strongest senses?

18) When should you take your turtle to the veterinarian?

19) How can you tell if your turtle is basking (sunbathing)?

20) How do you tame a turtle to your touch?

Answers

1) Up to 10 inches (25cm)

2) Painted Wood Turtle, Vietnamese Leaf Turtle, Spiny Turtle, or Keeled Box Turtle

3) Pet stores or turtle breeders

4) In the summer while the weather is warm

5) A large aquarium, suitable filtration, suitable lighting, an aquarium heater, rocks, sand or gavel

6) A suitable container, suitable heating, suitable lighting and rocks, sand, soil, plants and bark

7) Cuttlefish, ground eggshells and special pet store preparations

8) A polystyrene box or a cardboard box complete with appropriate heat and moisture sources

9) a. Up to 2 hours – b. Up to 1 hour

10) A disposable syringe (without needle), claw clippers, and tick pullers

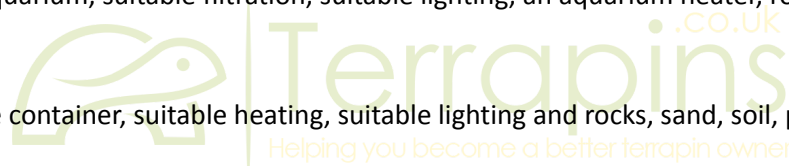
11) Hold it up to the light and look for small blood vessels

12) A loss of appetite and slow, sluggish movements

13) Ensure it has the correct living conditions, a proper and varied diet, and a clean environment to live in

14) Take it to the veterinarian immediately with stool samples (if possible)

15) Foreign bodies in the eye, injuries, exposure to drafts, vitamin A deficiency



- 16) It will swim along the side of the aquarium back and forth or will regularly try and climb out of its home
- 17) Smell and sight – hearing is its weakest sense
- 18) Whenever you are concerned about your turtle or in doubt about its health
- 19) It will sit under a heat source with all limbs extended and sometimes with its head flat to the ground and its eyes closed.
- 20) By hand feeding it food

Disclaimer & Copyright

All information contained within this guide from Terrapins.co.uk is meant for educational purposes only. None of the authors are trained veterinarians and the advice set out in this guide should never be treated as medical advice. Please consult a trained specialist if any doubt about the health of your pet. The other turtle related links in this guide have their own terms and conditions. Terrapins.co.uk is not responsible for the information given on those sites. Terrapins.co.uk is not responsible for the loss or mistreatment of your turtle.

This eBook and all of its content is copyrighted to Terrapins.co.uk. You may not sell or distribute this eBook or any part of it without express written permission. Anyone found to be breaking copyright law will be subject to prosecution at the highest possible level.