

BSAVA Factsheet for Owners:

Green iguanas

This factsheet has been prepared to help you understand the care requirements of green iguanas. There are several species of iguana – this factsheet is specific to green iguanas. It is advisable that you read this information before taking on the responsibility of owning a green iguana so that you are aware of their requirements, such as for housing, nutrition, handling, routine and veterinary care. Whilst this factsheet details a broad range of information, please speak to your vet if you have any further questions. Always research green iguana ownership thoroughly to make sure you can provide them with the best care throughout their lives.

Green iguanas (*Iguana iguana*) originate from the tropical and subtropical regions of Central and South America. They are arboreal lizards, meaning they spend a lot of their time climbing and sitting in elevated places. In their natural rainforest habitat, these herbivores feed on leaves, fruits and flowers and spend a lot of time basking in the sun. Green iguanas can grow very large, up to 7 feet in length. Their large size, high vitamin D requirement and arboreal nature means they have specific care needs in order to allow them to thrive.

Keeping female iguanas

Due to their territorial nature, and to reduce unwanted confrontation or injury, green iguanas should be housed individually. However, a common problem encountered in female iguanas is that, if they are not kept within sight and smell of a male, they can enter 'pre-ovulatory stasis'. This is where the female produces the follicles that eventually lead to eggs, without the eggs subsequently developing; this can lead to lethargy, weight loss and collapse. To combat this condition, a vet can advise you on ovariectomy (where the ovaries are removed) or a female can be kept within sight and smell of a male.

Housing

Size

If kept in ideal conditions, captive iguanas can live to be 15 to 20 years old. Female iguanas will reach lengths of around 5 feet, and males can reach lengths of between 6 and 7 feet. This means that the enclosure will need to be particularly large. Particular attention should be paid to the height of the enclosure, as iguanas are natural climbers. Having an enclosure length that is at least twice the length of the animal and an enclosure width at least equal to the length of the animal will ensure they have adequate floor space. An enclosure for an adult green iguana should, therefore, be at least 12 feet long by 6 feet wide by 6 feet tall.

Young iguanas can be housed in smaller enclosures as they grow, with the enclosure size being increased to accommodate their size and movement. Young iguanas who are housed in particularly large enclosures may find it difficult to find resources, such as food and water. They can be housed in glass, Perspex®, or wooden enclosures, providing the material has adequate strength to house them and is easily cleaned. All enclosures should be well ventilated.

Heating and lighting

Iguanas will need an artificial source of heat to create a temperature gradient in their enclosure. Their preferred optimal temperature is between 25 and 35°C, and due to their large body size, they need larger sources of heat in order to heat up their entire body. For smaller animals, one heat bulb may be sufficient. As the animal grows, banks of bulbs will be needed to adequately heat up their body. Heat rocks should be avoided, as these can lead to thermal burns. The temperature in the hottest spot should be around 35 to 38°C and in cooler spots should around 25°C. Thermometers should be included in the enclosure to monitor the temperature gradient.



Iguanas require UVB lighting in order to synthesize vitamin D3, thus ensuring the enclosure has UVB radiation bulbs is essential. UV light cannot penetrate glass or Perspex®, so this lighting should always be provided inside the enclosure. UVA and UVB bulbs should be included in both hotter and cooler spots, so that the iguana does not have to choose between heat or UVB radiation. Routine checks on all bulbs should be carried out, and any faulty bulbs changed as soon as possible. Owners should take every opportunity to make use of natural sunlight where possible, to ensure healthy vitamin D3 synthesis (see Handling). A Solarmeter® can be useful to measure the UV intensity within the enclosure; green iguanas, being partial or open sun baskers, require a UVI (ultraviolet index) range between 0, away from the light source, up to 7.4 in the basking zone.

Humidity

As their natural habitat is rainforest, green iguanas prefer between 75–100% relative humidity, which keeps them hydrated and avoids conditions of the kidneys. Humidity levels should be maintained using an automatic misting system or drip system (as hand misting will unlikely provide the humidity required). Shallow water baths should also be provided as iguanas will immerse themselves in water. A hygrometer in the enclosure can measure humidity.

Substrate

Substrate is the material used to cover the floor of your pet's vivarium. Substrate should be easy to remove and clean. Common substrate used in iguana enclosures include peat substitutes, which are naturalistic and help maintain humidity, as well as newspaper (which can be readily replaced when soiled) or artificial reptile carpet (which can be removed and cleaned). Substrate should be cleaned regularly, particularly when soiled by faeces and dropped food. Do not use sand or chippings substrates as these can be ingested and can cause gut impaction.

Furnishings

An iguana's natural behaviour includes climbing and basking on branches. The enclosure should contain a diagonal branch that accommodates the animal's length and weight in the hottest part of the enclosure, in order to bask, and another horizontal branch in a cooler part of the enclosure, in order for the iguana to remain elevated whilst keeping cool. Reptile branches can be brought from pet stores. Do not introduce any wood from the outside environment without first disinfecting it thoroughly, to prevent the introduction of microorganisms or parasites. Ensure no sharp edges are present on branches. Branches should be firmly and safely secured to the enclosure walls to prevent movement or falling.

As iguanas live in tropical rainforests, providing them with artificial foliage can mimic their natural environment, whilst also providing them with privacy and areas they will feel more secure. Ensure any artificial plants are kept clean. Both young and mature iguanas will benefit from a place to hide, such as an empty cardboard box or plant pot. The enclosure should also have space for a food bowl, smaller water bowl for the iguana to drink from and, ideally, a larger, shallow water bowl for them to immerse themselves in. All furnishings should be routinely disinfected with an animal-safe disinfectant, along with the enclosure itself.

Feeding

Iguanas are herbivores and should be fed a wholly vegetarian diet. A particularly important factor to consider in a green iguana's diet is that they are getting enough calcium. Both young and mature iguanas should be fed daily and, ideally, in the morning so that they digest their food whilst basking during the day. Any uneaten food should be removed at the end of the day to prevent spoilage.

Diet

The majority of their diet, 50 to 60%, should consist of green leafy vegetables, such as dandelion leaves, kohlrabi, alfalfa hay, parsley, turnip greens, rocket, chard and clover. Iguanas feed predominantly on leaves, so these should form the largest proportion of their feed. Other than the leaves, vegetables that are high in calcium can then make up 30 to 40% of their food. Ideal vegetables include okra, broccoli, green beans, cucumber, carrots, peppers, sweet potato, parsnips and celery. Do not cut vegetables, such as carrots and parsnips, into circles as this can present a choking hazard – instead, grate these before adding to the rest of the food.

Lastly, no more than 10% of an iguana's diet should be made up of fruit (as these are nutrient-poor). Ideal fruits to include are apples, pears, tomatoes, apricots, strawberries and occasional edible flowers, such as rose petals, pansies or dandelions. There are certain vegetable leaves that should only be fed in small amounts, as they can bind to other sources of calcium, thus reducing the amount available to digest. These include spinach, beet greens and Swiss chard. Other greens that should also be fed in small amounts include cabbage, kale and mustard greens, as these contain chemicals that can cause a condition called hypothyroidism if fed in large amounts.

Supplements

Iguanas require a higher calcium intake than phosphorus. Therefore, a calcium supplement (which does not contain phosphorus) should be added to an iguana's food every ➡



day. Calcium powder that has been specifically formulated for reptiles is available. However, most vets recommend that young iguanas, who require vitamin D for growth, are given a vitamin D supplement twice a week. This should be separate to the calcium powder. Egg-laying females may require both calcium and vitamin D supplements. For further advice on dietary supplements for iguanas at different life stages, speak to your vet.

Water

Clean, fresh water should be supplied daily. Green iguanas like to immerse themselves in water, so a large, shallow bowl of water can be supplied in addition to a drinking bowl. Water should be replaced at least daily and as soon as it is soiled. It should be noted that many iguanas prefer to drink from water droplets that form on the inside of the enclosure, rather than from still sources of water, which is why an appropriate humidity is important.

Life stage feeding

For young iguanas, ensure that food is presented in a manageable way for them to eat. Tear leaves into smaller pieces and grate harder vegetables first. Juvenile, growing iguanas can be fed legumes, including lentils and pinto beans, as these are high in protein, but these should only form up to 5% of their diet.

Remember that young iguanas who are housed in large enclosures meant for adults may find it more difficult to locate their food bowl. As mentioned, the supplements required for a growing iguana (and for pregnant iguanas) will be different to adults, so making sure you have researched the correct life stage nutrition and spoken to your vet is important.

Handling

Iguanas will need to be handled in situations such as removing them from their enclosure in order to do a deep clean, taking them to the vet should they need to, or times when you wish to relocate them for exercise or to take advantage of sunshine in a safe, escape-proof area outside (doing this can take advantage of naturally vitamin D3 synthesis).

Always gauge the temperament and behaviour of an iguana before handling them; if they are showing frightened or aggressive behaviours, such as head-bobbing, extending their dewlap (the membrane on their neck) or swishing their tail, it is best to handle them another time. Great care needs to be taken when allowing children to handle iguanas, of the appropriate size, for short periods. Iguanas should not be grabbed or handled by their tails, as they display autotomy, where their tail can fracture off from their body. Thorough research into iguana behaviour, a predictable daily routine, avoiding handling iguanas that are settling into a new home and getting to know your animal's *individual* behaviour will all improve time spent handling them.

When picking up an iguana, make sure you approach them from the side in order not to startle them. Scoop them up using your hands to support their upper and lower belly. Their tail can be gently secured under your arm. In as far as possible, only lower them to the floor again when

they are calm. Always remember that iguanas have sharp claws and strong tails, so wearing clothing that protects your skin from scratches is advisable.

Reptiles can carry a species of *Salmonella* which can be transferred to humans, so good hygiene and hand washing should be observed whenever you have handled an iguana. Hand washing is sufficient to prevent the spread of any infection.

Older pets

Iguanas have a relatively long lifespan of up to 20 years old. They will likely slow down as they age, spending less time moving around their enclosure and more time basking. As your pet nears the upper end of this range, some changes to their care may be required to ensure they are kept happy and healthy.

Feeding

Like all animals, iguanas slow down as they age, and less energy is required. You may find that the amount of food your iguana leaves increases slightly. Ensure that temperature gradients are correctly maintained, as older iguanas require warmer temperatures to help them digest their food. You may need to make the size of individual vegetable pieces smaller if your elderly pet struggles to eat larger pieces. This can be done by tearing leaves up smaller and grating vegetables before including them with the rest of the food. Make sure that food and water bowls are as accessible as possible, as the iguana may find navigating the enclosure more difficult.

Environment

A stress-free environment is even more important for senior reptiles. Older animals are more susceptible to stress, so ensure there are no factors that could cause any pain or discomfort. Make everything in their vivarium easily navigable (some of the furnishings they could navigate when they were younger may now be less manageable) and ensure their water bowl is easy to access. Basking temperatures should be kept high to ensure an optimal core temperature. Iguanas may be more susceptible to bone fractures, so making sure that their climbing branches are easy to navigate is important. You may need to consider making branches and basking areas wider, to prevent any falls. Branches can be replaced with wooden boards, several inches wider than the animal's body. Handling times should be kept to a minimum for older iguanas, and handling by inexperienced or young persons should be avoided, as the bodies of senior pets will be more fragile.

Veterinary checks

As iguanas age, it is important to have a check up with a vet, particularly a vet who specializes in reptiles. For example, conditions involving the kidneys may take time to develop and may be more common in older pets. If you notice any concerning changes in your pet's behaviour, appearance or eating habits, it is advisable to have your iguana seen by a vet who can identify whether any changes to their care needs or medical treatment is required. For older reptiles, maintaining an optimum core temperature is particularly important, so ensuring that they stay warm when being

transported to a veterinary clinic is essential. Heat mats or hot water bottles that are safely covered can be used, and journeys should be planned to ensure that they are away from the enclosure for the shortest length of time.

How to medicate

Medication will likely be administered directly by your vet. Your vet will give you advice on how to administer any medication at home. Any topical medication will be applied directly to the affected area, such as a wound or skin infection, and it is important that all instructions provided by your vet are followed. It is important to monitor your pet's response to the medication and inform your vet if you have any concerns. Follow any storage and disposal instructions that come with the medication.

Shedding problems

Iguanas are discontinuous shedders, meaning they shed their skin in large pieces, but not in one go. Skin shedding happens sporadically as they grow; young iguanas will shed their skin more frequently (every few weeks), whereas adult iguanas may only shed once or twice per year. Always ensure there is an aid to shedding with a rough surface placed in the environment. The amount of time shedding takes varies depending on the age of the iguana and the humidity levels of their environment. Shed skin should be removed from the enclosure, and any water changed if contaminated. A relative humidity of 75% and above should be maintained by a spraying or drip system.



Difficulty shedding

Occasionally, your iguana may have patches of skin that do not come off as easily, this can include the spikes along their spine and tail. This is more likely to happen in older pets, or those who are not well hydrated. It is important not to pull off old skin that has not detached, as this can tear the skin underneath. If patches remain, your iguana can be bathed in shallow, tepid water to soften the skin and then placed back in the enclosure and monitored. This should be sufficient to aid the shedding of any patches that were stuck. Specially formulated shedding aids to help difficult sheds are available. If your pet consistently has trouble shedding, this may be

due to an incorrectly balanced diet: ensure that your iguana is getting the correct lighting, vitamins and minerals they need and consider speaking to your vet.

Parasite control

You can reduce the risk of your pet getting internal or external parasites in several ways:

- Submit a faecal sample to your vet for a parasite check when first taking on responsibility for your pet
- Send off periodic faecal samples throughout your pet's life to check for parasites
- Ensure no organic material is introduced to the enclosure without being thoroughly disinfected first
- Remove any uneaten food as soon as possible and take steps to prevent flies around food
- Keep water sources free from food debris, shed skin and faeces and provide fresh water daily
- Remove faeces from the enclosure promptly and keep substrate clean (or change newspaper)
- Regularly disinfect the enclosure and contents with a pet-safe disinfectant
- Ensure your hands, and those of others, are clean before handling your pet
- Monitor the appearance of faeces (diarrhoea could be due to internal parasites) and for weight loss
- Monitor for any changes in behaviour, such as prolonged periods soaking in their water bowl
- Monitor for any appearance of tan/yellow crusty lesions which may indicate Yellow Fungus Disease
- Monitor the external appearance of your pet regularly for external parasites.

It is important to look at all the areas of your iguana's body, not just their head and back from above. Places to note include their eyelids, tail and the underside of their body. Be aware that there may be particles on your iguana that can be confused with parasites, such as substrate debris or faecal matter. However, if you do notice anything that is of concern, speak to your vet and ensure that your pet has a check-up.

Calcium deficiencies

Captive reptiles can suffer from a common disease called metabolic bone disease (MBD), which describes a range of nutritional illnesses, often due to a lack of UVB lighting (resulting in a vitamin D3 deficiency, which prevents the iguana from absorbing calcium in food) or poor dietary calcium supplementation. Clinical signs include muscle weakness and twitching, swollen legs and fragility of the bones and can lead to deformities in the limbs, jaw, spine or tail. It is most often diagnosed in iguanas that are less than 2 years old. It is therefore essential that your pet receives the correct lighting, nutrition and supplementation to avoid MBD, and careful research should be done to ensure the health and wellbeing of your pet.

What is an emergency?

There are several signs that may indicate that your iguana requires medical attention from a vet. It is very important that you are familiar with your animal's normal behaviour, ➡

Green iguanas *continued*



to have the best indication of when this changes and when they may not be well.

If you notice any of the following signs, seek veterinary advice:

- Loss of appetite and weight: if your iguana suddenly stops eating and shows a significant decrease in weight and/or body condition, or behaviour changes when eating, this may indicate a health problem
- Although much time is spent basking, a sudden decrease in the amount of time your iguana spends being active (e.g. not wanting to climb to their basking spot) and increased lethargy may signal ill health
- Respiratory distress: signs of respiratory distress include open mouth breathing, wheezing or gurgling noises. This could be indicative of a respiratory infection or a respiratory condition
- Abnormal faeces: any significant changes in the appearance or frequency of droppings (including constipation or bloating) could be a sign of internal parasites or other underlying health condition

- Swelling or colour change in your iguana's mouth or gums: this can be an indication of stomatitis, a common condition in captive reptiles also known as mouth rot, which results from bacterial infection
- Falls from high surfaces (especially in fully grown iguanas) can result in bruising or fractures; monitor their weight bearing and movement. Following significant falls, your iguana should be checked by a vet as a precaution
- Any tremors, seizures or head tilt, which may be signs of an underlying neurological condition – in the case of seizures, seek veterinary care immediately.

Further information

This leaflet is purely a guide for the basic care and welfare of green iguanas. It is essential to research any animal species thoroughly before committing to their ownership and care. Always speak to a veterinary professional if you have any questions or concerns.