



Dart Frog Emergency Kit #2: Weight Loss

Includes:

- 5mL Amphibian Ringers Solution
- 4 Sterile Synthetic Swabs
- 2 Pairs of Non-Sterile Vinyl Gloves
- 4 2mL Vials
- Lab Submission Sheet
- Ringer Solution SDS Sheet
- Flat Rate Padded USPS Mailer

Not Included, but Suggested:

- Hydei Larva Culture
- Fine Mesh Sieve

This kit is provided Free of Charge by Houston Frogs and is the same we use for treating amphibian weight loss. We use this product on our own amphibians with excellent success in treating amphibian weight loss, which can have many causes including stress, parasites, or bacterial, viral, or fungal infection. The included Amphibian Ringers Solution was prepared by Carolina Biological and is typically used to treat dehydration in amphibians as well as to increase appetite. The SDS is attached to this sheet.

The included products are repackaged in our laboratory at Houston Frogs LLC. If you choose to use any of the products in this kit, you agree to hold harmless Houston Frogs LLC, the owner, and all subsidiaries and affiliates for any negative reactions, damages, or other harm caused by this kit. Remember that it is best to consult a veterinarian before using any products on your animals. By using this product, you also agree that you have consulted a licensed veterinarian about the use of this Ringer Solution on your animal(s). By providing this product for free, we are not engaging in the practice of veterinary medicine nor recommending it be used on your animals. Use at your own risk.

What can cause weight loss in amphibians:

Weight loss in amphibians can be caused by many factors including:

- Parasites
- Chytrid
- Ranavirus
- Bacterial Infection
- Bullying/competition from other frogs
- Low humidity/low temperature/high temperature/ too small of tank/environmental stress
- Dehydration (Can be from the above)
- Injury
- Calcium/vitamin A deficiency
- Underfeeding

Refer to the weight chart attached to this kit for reference of what the proper weight of your dart frog should be. If you unknowingly buy a skinny animal, you should alert the seller to this problem and ask to return the animal as soon as possible. No animal should ever be sold underweight. If your frog has begun to lose weight suddenly, your first priority should be increase fat stores to give you more time to narrow down the issue(s).

How we treat underweight frogs:

First, we prepare a treatment tub, which typically consists of a large, clean plastic tote with moistened (using distilled water) paper towels on the bottom. This tub will reduce the chance that the amphibian escapes during treatment and becomes further injured. Secondly, we put on a set of vinyl gloves for handling the amphibian needing treatment. Third, we rinse the gloves using distilled water, which will help to reduce stress on the animal. Amphibians should never be handled using bare hands or with dry gloves as their skin is very delicate and can absorb any oils, salts, or chemicals from our skin. Finally, we gently collect the amphibian from its habitat by either cupping it with gloved hands or by coaxing it into a clear container to transfer it into the tub. If the gloves become soiled, they will then be rinsed a second time with distilled water before treatment.

Next, we will typically prepare a ringer solution bath in a 16-32oz deli container like those used for fruit fly preparation by simply adding 2-3mL of ringer solution to the bottom of the container. The frog can then be set into the container and solution to soak for about 15 minutes. It is helpful to put a vented lid on the container, so the frog does not jump out. The ringer solution helps to hydrate dehydrated frogs and additionally stimulates appetite. While the frog is soaking, we typically will prepare some fruit fly larva as they are typically very high in fats compared to fruit flies. This is done by simply scooping out some larva from a culture, rinsing the larva over a fine mesh screen or piece of cloth, then placing the larva in a bottle cap

or on a leaf to feed to the malnourished frog. We will then release the frog from its bath to begin feeding on the fruit fly larva. After this step, it's extremely important to narrow down the cause of the weight loss.

First, the source of the frog must be examined. If it was bought from someone other than a well-known, reputable breeder and it was skinny when bought or lost weight soon after, then it's very possible that the frog may be wild caught (especially if it was sold as an adult), or is otherwise infected due to improper husbandry. In this case (that it was bought from someone other than a reputable breeder/company), it's best to have a fecal examine performed by a laboratory or veterinarian to determine if the frog has parasites, after which a veterinarian can prescribe the proper course of medication. It is also best to see if your frog has chytridiomycosis caused by *Batrachochytrium dendrobatidis* or Ranavirus, both of which could have infected the frog when it was in either in the wild, or in a contaminated facility. Our sample collection instructions are included in this packet.

If the frog came from a trusted source, or if it has been in care for a prolonged period of time, then the issue is very unlikely to be chytrid, ranavirus, or parasites unless a recently added contaminated plant, piece of décor, or an adjacent tank is to blame.

The next cause could potentially be a bacterial infection. If your tank has wet sphagnum moss underneath the leaf litter, remove it. If there is a stagnant water source in the tank, remove it. If your leaf litter does not dry out in between misting cycles, reduce misting and allow the leaf litter to dry a bit. Sometimes frogs will exhibit visible blisters on their feet, legs, or belly indicative of a bacterial infection, in which case antibiotics are needed from a veterinarian.

If none of the above issues are present, we must then look at tank mates, if any. Sometimes (especially in tinctorius), tank mates will "bully" each other, which can be exemplified by the aggressive frog standing on top of, pushing out of the way, kicking, tongue flicking at, wrestling with, standing in front of and eating the flies in front of, or chasing after the skinny frog. Often times, this is an easy issue to solve (more or less), by separating the two frogs.

Another issue could potentially be an injury, which is typically indicated by a limb being dragged, a white/gray patch indicating an abrasion, or otherwise abnormal movement. Dermal abrasions can be treated with a topical antibiotic, but internal injuries will either heal, or the frog will succumb to them.

Another issue could be underfeeding. Typically, it is best to ensure there are still some flies present the next day after feeding. Overfeeding can have similar results if soo many flies are put into the enclosure that they are constantly crawling all over the frog, stressing it out.

Another issue could be environmental. It's important to ensure that the temperature of the tank is between 68-78 degrees, that humidity remains between 70-100% (best not to have 100% humidity all of the time though so the leaf litter can dry out a bit), that there are no constant loud noises near the vivarium, that there are no scents/aerosols being using in the

same room as the frogs, and that the tank is the proper size/layout for the number and species of frogs you have (which can be derived from our species specific info guides).

The last potential issue could be a vitamin A deficiency or Calcium deficiency, which is typically caused by expired supplements (over 6 months), using low quality supplements, or not using supplements at all or in improper ratios. Typically, this is exemplified by the frogs attempting to eat the fruit flies, but being unable to “pick them up”, or even by seizures where the frog will freeze and sometimes even stretch out and appear dead from minutes to even hours.

While solving any potential problems causing the loss in weight, the frog is kept in the treatment tub and fed with larva, some springtails, and a few fruit flies daily (dusted with proper supplements such as Nekton Calcium +D3/Multi-Rep/Rep, or Repashy Calcium Plus and Supervite) until a proper weight is achieved, after which the frog can be returned to its habitat assuming the problem originally causing the weight loss has been solved. It’s very important to keep this treatment tub sanitary and to change the paper towel daily, to ensure the paper towel is moist but not saturated with water, and to spray down the tub (without the frog in it) once a week with 70% isopropyl alcohol, wipe it down, then spray down with distilled water, then wipe dry, to sanitize it.

For more information, visit us at www.HoustonFrogs.com



● **Emaciated**

Pelvic bones and other bony structures pronounced. Obvious loss of muscle mass, particularly in hind limbs. Skin may appear loose and wrinkled. *Dorsal view*, abdomen tapered at hips.



● **Thin**

Pelvic bones easily observed with little soft tissue (muscle, fat) cover. Some loss of muscle mass in hind limbs. *Dorsal view*, right and left sides of abdomen are parallel or only slightly taper at hips.



● **Average**

Pelvic bones easily observed with soft tissue cover. Muscle mass good in hind and forelimbs. *Dorsal view*, right and left sides of abdomen are slightly rounded away from parallel.



● **Fat**

Pelvic bones visible with good soft tissue cover. Muscle mass good in hind and forelimbs. *Dorsal view*, right and left sides of abdomen are rounded.



● **Obese**

Pelvic bones not visible. Fatty hind limbs, possibly fatty forelimbs. Skin appears stretched. *Dorsal view*, right and left sides of abdomen are bulging.

● Healthy ● Unhealthy