



FAILURE TO THRIVE

- **Failure to thrive** is defined as decelerated or arrested physical growth and is associated with abnormal growth and development.

- This condition implies that the patient has not been growing at the expected and predicted rate consistent with their age, species, gender and other parameters. It is a commonly seen condition that often responds to simple alterations in management. The common causes of failure to thrive are, Inadequate dietary input most nutrients Stress acute and/or chronic Parasitism internal and/or external Chronic illnesses diarrhea, renal disease Congenital deformities such as cardiac conditions, gastrointestinal malformations metabolic aberrations renal abnormalities competition with each other/other species.

- lack of weight gain
- delays in reaching developmental milestones
- lethargic
- Abnormal bowel movements

What is Failure to thrive?

- There are 4 broad sub-forms of undernutrition: wasting, stunting, underweight, and deficiencies in vitamins and minerals.

- Low weight-for-height is known as wasting.
- Low height-for-age is known as stunting.
- Species with low weight-for-development are known as underweight. Species underweight may be stunted, wasted, or both.

Undernutrition

- Inadequacies in intake of vitamins and minerals, often referred to as micronutrients, can also be grouped together. Micronutrients enable the body to produce enzymes, hormones, and other substances that are essential for proper growth and development.

Micronutrient

- Overweight and obesity result from an imbalance between energy consumed (too much) and energy expended (too little).
- Marsupials are known to have obesity in captivity.

Overweight

- Diet-related noncommunicable diseases (NCDs) include cardiovascular diseases (such as heart attacks and stroke, and often linked with high blood pressure), certain cancers, and diabetes. Unhealthy diets and poor nutrition are among the top risk factors for these diseases.

Diet-related noncommunicable diseases

- **Malnutrition** is a condition that results from eating a diet in which one or more nutrients are either not enough or are too much such that the diet causes health problems. It may involve calories, protein, carbohydrates, vitamins or minerals.

Malnutrition



EASTERN COTTONTAILS

Most common patient to suffer from FFT.

- Escape
- Broken bones
- Concussion
- Stress
- Increase heart rate

Mishandling



Formula

- Age
- Temperature
- Thickness
- Nutrition



Feeding schedule

- Care plan
- Frequency
- Being Observant
- Transition to solid foods

Bloating

- Diarrhea
- Stress
- Dehydration
- Microbiome disruption



- Improper diet
- Contaminated greens –Escherichia coli
- Variety/ balance
- Amount
- Good bacteria- Lactobacillus acidophilus

Diet

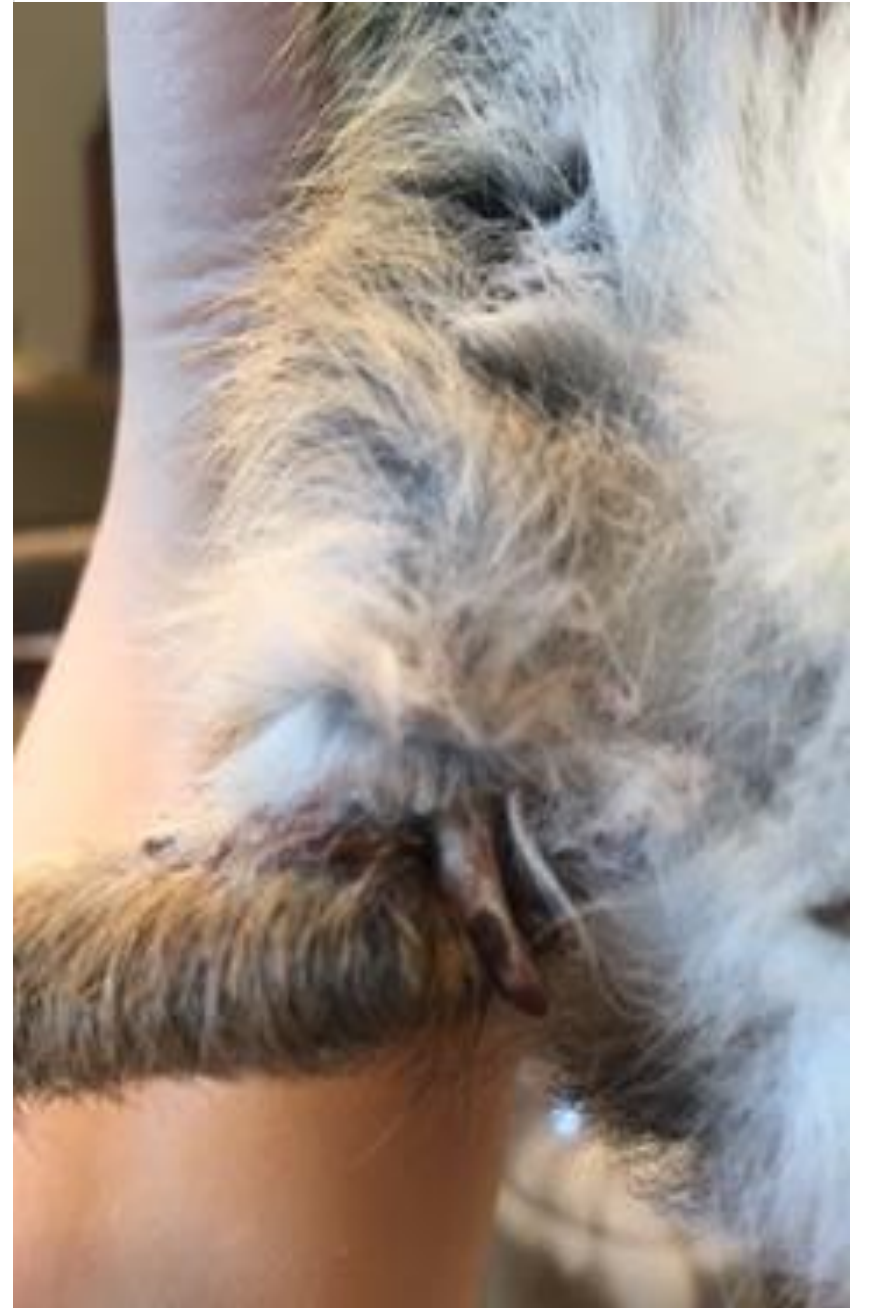


Improper caging

- Cage
- Not enough food
- Bullying
- Stress
- Hiding
- Surroundings

Wounds

- Extensive
- Infected
- Stress
- Incapable to give proper nutrition
- Unable to heal



Stress

- Diarrhea
- Dehydration
- Decline in Health
- Heart attack





VIRGINIA OPOSSUM



Overcrowding

- Floor cages
- Not enough food
- Bullying
- Stress
- Hiding
- pacing

Pouch removal

- Body damage
- Too young
- Unable to give proper nutrition
- Broken bond
- Non adapting



Improper feeding techniques/diets

- Tube too small or big
- Holding improper
- Tubing at a fast pace
- Mis calculated amount
- Punctured stomach
- Bruising
- Formula incorrect
- Formula temperature

EASTERN GRAY SQUIRRELS

The least common we see FTT in.



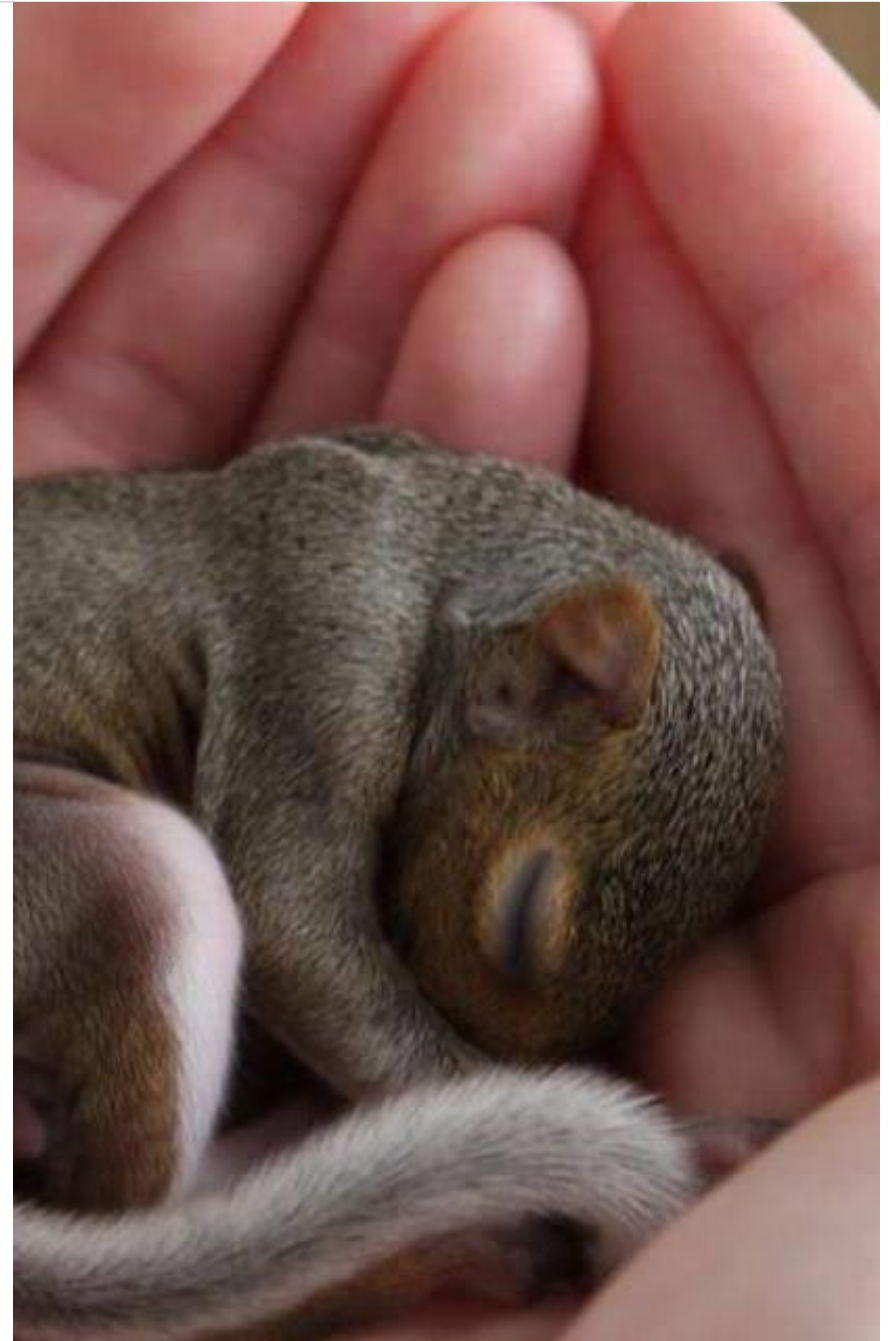
Captivity

A close-up photograph of a squirrel's face and paws behind vertical metal bars. The squirrel is looking directly at the camera with a somber expression. Its paws are gripping the bars. The background is a blurred green, suggesting an outdoor setting. The image has a dark, semi-transparent overlay.

- Imprinted
- Public
- Trauma
- Adapting
- Noises/movements
- caging

Depressed/Scared

- age
- Separation
- Trauma
- Screaming
- Hiding
- Refusal to eat



- Bordetella is a gram-negative bacterium, commonly found in the respiratory system. It is part of the normal respiratory flora in its non-pathogenic form. The virulent or disease form can be activated in animals with compromised health, or by the presence of stressors such as overcrowding, transportation, poor ventilation and other factors.
- Symptoms of Bordetella infection in squirrels include:
 - - Rapid onset of symptoms.
 - - Lethargy and weakness.
 - - Refusal to eat and/or fight attempts to feed, likely due to respiratory difficulty.
 - - Profuse, frequent urination, sometimes involuntary.
 - Moderate to high fever.
 - - Rapid and significant dehydration and weight loss

Bordetella



ALL BABY MAMMALS

- This can play a huge role in the proper development of the orphaned babies. Make sure when rehabbing these young species you can provide all dietary needs and supplements.

- Monkey biscuit
- Rodent block
- Fresh fruit/veggies
- Omnivore diet
- Yogurt
- Soaked chow
- Squirrel mix

Diets

- **Aspiration increases your risk for aspiration pneumonia. This is a condition where pneumonia develops after you've inhaled bacteria (through food, drink, saliva, or vomit) into their lungs. Inhaled formula is probably the leading cause; however, improper bedding such as sawdust, mist from aerosol sprays, powders, being housed in a dusty environment, smoke and gases.**
- **Labored/difficult breathing**
- **Nasal discharge**
- **Wheezing/crackling**
- **Lethargic**
- **Loss of appetite**
- **Pale, bluish to dark purple skin**

Aspiration

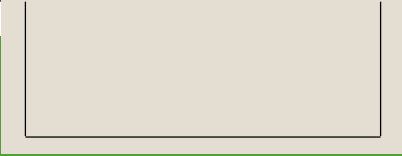
Fluid therapy, in an injured /orphaned animal, will dramatically improve the likelihood of survival.

Animals require fluids for:

- **Maintenance;**
- **Rehydration;**
- **Replacement of ongoing losses.**

The maintenance requirement of most species has been estimated to be 50-60 ml/kg/day, or 5% of body weight. Smaller species, such as passerines, may require up to 8% of body weight daily for maintenance. It is a reasonable assumption that most animals present with 10% dehydration.

Fluid Therapy



THE TOTAL VOLUME OF FLUID GIVEN MUST ADDRESS BOTH THE ONGOING MAINTENANCE REQUIREMENTS AND THE REPLACEMENT REQUIRED FROM DEHYDRATION. IN THIS SCENARIO, 50% OF THIS DEFICIT IS REPLACED IN THE FIRST TWENTY-FOUR HOURS AND THE REMAINDER OVER THE FOLLOWING TWO DAYS.

DAY 1: MAINTENANCE (5%) + REHYDRATION (5%) = 10% OF BODY WEIGHT
DAY 2: MAINTENANCE (5%) + REHYDRATION (2.5%) = 7.5% OF BODY WEIGHT
DAY 3: MAINTENANCE (5%) + REHYDRATION (2.5%) = 7.5% OF BODY WEIGHT

THE TOTAL REQUIREMENT FOR 24 HOURS SHOULD NOT BE GIVEN ALL AT ONCE. THE AMOUNT IS DIVIDED AND GIVEN AT REGULAR INTERVALS – FOR EXAMPLE, EVERY 4 – 6 HOURS. IF TOO MUCH FLUID WAS GIVEN, AND THIS MAY BE POSSIBLE WITH INTRAVENOUS FLUIDS, THE ANIMAL MAY HAVE SIGNS OF NASAL DISCHARGE, COUGHING, PANTING, ASCITES OR DIARRHEA.

Treatment plans

- Diets
- Medications
- Stimulants
- Fluid therapy
- Mimicking natural environment
- Timed feedings

Records

- Photos
- Ticket system
- Weights
- Behavior
- Bowel movements
- Food intake



FAILURE TO THRIVE

Has its own definition but dealing with this firsthand that definition feels nonexistent and becomes a self failure. As rehabbers we are the ones who put the pressure on ourselves to succeed by this, we forget to let ourselves breath and get so caught up in blaming ourselves versus looking at the legitimate cause and effect. At the end of the day they have lost their mother we can not replace her no matter how hard we try everything we do can be right but with orphaned wildlife that motherly bond is still needed just as much as the human child.



THANK YOU

By Kelsey & Kara