

Rat Care

Welcome to our Rat Care Guide! Below, you'll find information regarding housing (cagemates, cages, bedding/litter, water bottles, enrichment/exercise) and diet (staple diet, fruits/veggies, treats, etc), as well as common health issues (in progress!) However, this is not meant to be a comprehensive guide to all things pet rat. Feel free to [email us](#) with any further questions! (A bare bones quick-read version can be found here for easy reference

[☰ Brief Rat Care Guide](#))

I) Housing

➤ **Cagemates**

- Rats are a highly social, colony species, thus they should always be housed in pairs at minimum (trios or more are preferable if possible so they can form a group hierarchy and one isn't left alone suddenly if one passes). Rats should never be housed alone unless medically required for short-term care or in the case of hospice/very elderly rats when obtaining another companion is not possible. Cagemates should always be same sex or spayed/neutered to avoid unwanted and unnecessary breeding (brief obligatory statement - most rats should not be bred, and most people should not breed rats!) Do not allow intact male and female rats to interact, even under supervision, as they can mate in seconds. Rats often have very large litters and it is not always easy to find good homes for them.
- Rats should not be housed with nor allowed to interact directly with any other type of animal other than other compatible domestic rats. Even friendly pets can have instincts unexpectedly triggered or cause accidental harm. Cat saliva and bordetella (causes kennel cough in dogs) are very dangerous to rats. Rats also can attack and even kill other rodents and birds, and can cause injury to larger pets as well.
- Both sexes of rats make great pets and usually get along well with each other if properly introduced, but there are some general differences (for more information, see [Male or Female?](#)). Successful integration of new rats can happen with either sex and at any age, but spayed/neutered rats are typically easier to introduce to other rats. As long as at least one sex is altered, it is possible to have both sexes housed together, but be aware neutered males may still mount intact females when they are in heat. Spayed females do not go into heat, so intact male rats will not typically mount them beyond normal dominance-related behavior. Some intact males will harass spayed females, but these generally are males that should be neutered due to testosterone overload anyway. For more information on integrating previously unfamiliar rats with one another, see [Integrating New Rats with Existing Rats](#).

➤ **Cages/Habitats**

- The Don'ts: Aquariums (tanks), no matter how large or even with wire "toppers," are **not** appropriate rat housing. They do not provide adequate ventilation from the ammonia that urine contains (which settles at the bottom of the tank). Tanks provide fewer opportunities for appropriate enrichment items. They are also very heavy and cumbersome to clean, and easily cracked/broken.
- More Don'ts: We advise against building homemade cages, particularly from wooden structures such as bookcases, armoires, etc. These cages are usually much more effort and expense than they are worth and do not hold up well. Wood cannot be sanitized properly (even if covered) and will quickly start to absorb urine and smell. If the wood has been treated with sealants, other chemicals, or even certain paints, it can be harmful if chewed (and it will be!) In addition, many types of wire commonly used to make homemade cages are unsafe or unsanitary (ie chicken wire, galvanized wire). Avoid using any cages with wooden parts or shelves, and if you decide to build your own cage, be mindful of safety, airflow, and sanitation long-term.
- The Do's: The best housing for your rats is a large commercial wire cage prioritizing floor space, with coated (not galvanized) metal bars, and with a deep bottom pan for bedding/substrate. These cages allow proper ventilation, oodles of enrichment opportunities, and the ability to be moved about and/or taken apart and sanitized. "Bin cages" - homemade cages made out of large plastic totes (ex: Christmas tree storage totes) with cut-outs for wire on three sides and the lid - are also acceptable IF properly made, but care must be taken to choose an appropriately sized and constructed bin and provide plenty of enrichment opportunities.

CAGE TIPS:

- What is appropriate housing space for rats can be hotly debated, with many throwing out arbitrary minimums and requirements based solely on opinion and little else. However, be advised that most of the cages sold in pet stores labeled for rats are far too small for adult rats. As a general guideline, strive for a minimum of 2-2.5 cu. feet per rat. If you would like to give your rats more cage space, feel free! However, do consider that bigger is not *always* better. A huge but bare/empty cage with poor utilization of the space, that isn't cleaned properly, is far less optimal than a smaller cage with plenty of clutter and enrichment that is appropriately maintained. Our opinion is that if one struggles with the upkeep of a huge cage, it is far better to switch to a smaller cage that is easier to manage, as cleanliness of your rats' habitat is paramount for their health.
- Most rats appreciate climbing opportunities, but rats are fossorial in nature so wider/longer cages with ample horizontal floor space (30" x 20"

rough minimum guideline) are far preferable to narrow/very tall cages with many levels or ladders and a small footprint. Rats need room to run about, not just platforms and objects to scale. As rats age, they tend to become less graceful and agile, and a tall/narrow cage is hazardous due to the potential for a dangerous fall. Tall cages with many levels are also much more difficult to keep clean.

- Choose a cage with coated wire bars with appropriate spacing between. Uncoated metal (galvanized) will trap and absorb urine, resulting in rusting and a terrible odor. Cage bar spacing of ½" or less is suitable for most rats. For 1" spacing, the cage may effectively house large adults, but this is not recommended. CAUTION - a rat can fit its entire body through anything it can fit its head through, and those that can't, could get seriously injured trying! You can cover cages with hardware cloth, but this is expensive, time consuming, and has the potential for injury. Do not use chicken wire!
- Some rats are voracious chewers and may chew through cages with plastic bottoms or other parts. If your rats begin to chew your cage, be mindful of possible escape and consider a chew-proof cage. Once rats learn to chew plastic, they rarely stop.
- Wire flooring on cage floors/ramps/shelves does NOT specifically cause bumblefoot, contrary to popular belief. The coating, gauge, spacing, smoothness, etc of wire all factor into its suitability in rat housing. We do not believe in a blanket "wire flooring is bad" statement, but we generally recommend avoiding cages with wire bottoms/grates/pull-out trays and considering covering wire shelves/ramps for most cages. Cages with wire floors, shelves, and ramps may be more likely to cause injury, particularly in elderly/infirm rats.
- Rats adore their family and are incredibly social. They should be located in a high traffic area in the house or a spot where you visit often. If housing rats in a bedroom, be mindful that rats tend to be quite active (read: noisy) at night. Never house rats outside or in a garage/shed. Be sure to protect rats from other household pets.

NOTE: There is a trend on social media lately of removing all shelves, levels, and ramps in cages and replacing them with baskets, ropes, branches, seagrass mats, tie racks, and other such items. This can be a viable option, but keep in mind for this to be safe, you need to add a LOT of items for clutter/fall breakers. Be mindful of fall hazards and the potential for other injuries, especially as your rats age. Also, rats (even if litter trained) dirty everything in the cage and all of these items must be cleaned and/or replaced often. We personally feel rats are not squirrels and should not be forced to climb all of the time, and that shelves, middle levels, and the like can be a valuable source of cage space and enrichment, and are often essential for senior and/or debilitated rats. YMMV!

BRAND RECOMMENDATIONS:

[Midwest Critter Nation](#) (single, double, or triple) - This is a highly popular cage due to the amount of space, durability, wide doors, and pleasing aesthetic design. The cages can even be attached side by side for more space/versatility. We generally recommend no more than 4 adult rats per single/section (so up to 8 for a double), but this can vary depending on the cage layout, the individual rats, and the amount of time they spend outside the cage.

These cages DO require customization/modification for best experiences. The plastic pans that come with the cage are too shallow for any kind of substrate and are easily chewed and destroyed. However, you can order replacement custom stainless steel pans from companies such as Bass Equipment, or use plastic cement mixing tubs (found at Home Depot, Lowe's or Tractor's Supply) to allow for even more substrate and burrowing capacity (unless your rats are heavy chewers!) *Check measurements as size can vary with brand!* Some folks opt to remove the bottom floor grate and insert these pans in the "storage" shelf area of the cage. You can even make your own extra deep bases out of coroplast or more durable materials like [perspex/acrylic](#).

[Critter Nation Replacement Pans](#) (3" stainless steel, avoid galvanized)

While we recommend these cages, please be advised these are bulky/heavy and can be difficult to keep clean without a good upkeep regimen and modifications. They do need lots of clutter to maximize the space and prevent fall risks.

NOTE: urine and other substances can sometimes collect between the joints and bars of the cage, therefore they MUST be occasionally disassembled to thoroughly sanitize/deep clean and dried thoroughly to avoid rust. We use a toothbrush to get in the little crevices and crannies!

[FRISCO Small Animal Cage - Chewy.com](#) (single or double) - a newer cage on the market. It shares similarities to the Midwest Critter Nation but comes with scatter guards. We have no personal experience with this cage, but it may be a good alternative to the CN.

Exotic Nutrition Mansion [2-Level](#) or [4-Level](#) - another similar cage, somewhat expensive, but chew proof and now comes with cage guards

[Universal Small Animal Home / Ranch 5524 Prevue Pet Products](#) Great size, prioritizes floor space, has appropriate bar spacing, and a deep pan for bedding. This is a good choice for folks who cannot manage the weight/cleaning upkeep of a Critter Nation and for those with senior rats.

[Universal Small Animal Home/Suburban 5528 Prevue Pet Products](#) New, larger version of the Prevue 528, suitable for 2-3 rats. It is easy to assemble, lightweight, and relatively easy to clean.

[Exotic Nutrition Casablanca Small Animal Cage](#) - Another option for 2-3 rats, appears similar to the Prevue 5288.

[PREVUE PET PRODUCTS Two Story Small Pet Home](#) Lighter than the DCN cages, may be easier to keep clean. Remove/replace floor grate for rats. Needs lots of fall breakers.

[Ferplast Ferret Tower Two-Story Ferret Cage](#) May not be suitable for chewers, needs lots of fall breakers.

[64" Extra Large Wrought Iron 4 Levels Cage with Removable Stand](#) Remove/replace floor grate and cover levels/shelves or replace. There are two sizes of this cage, choose the larger. Needs lots of fall breakers/modifications.

[Garvee Ferret Cage, Large](#) Newer option

More possible options are listed in our [Brief Care Guide](#)

➤ ***Cleaning Tips***

Whatever cage you choose, be sure that you are able to manage appropriate hygiene and cleanliness. Again, it is better to have a smaller cage that is cleaned appropriately than a mansion that is not. The more rats per cage and the smaller the cage, the more often it will need to be cleaned, but we generally recommend a thorough deep cleaning every 1-2 weeks, with hammock swapping, litterbox dumping, and spot cleaning happening more frequently. Your cage should NEVER "smell bad."

When cleaning your rats' habitat, be sure to **scrub cage surfaces/wires/shelves/levels** in addition to dumping out and cleaning the pans/bases/bins. Various cleaning materials can be used, anywhere from basic hot water and soap to veterinary grade cleaning solutions such as Rescue/Accel (our favorite), Ro-cal, Oxide, Trifectant, etc. Cages must be scrubbed of all debris BEFORE applying diluted bleach, if used. Be sure to follow all labeled instructions and rinse well with any and all cleaning products.

Soaking cages and cage accessories in white vinegar (a 50/50 mix with water can be used) can eliminate stubborn stains and odors. White calcium buildup from urine can also be removed by soaking and scrubbing with CLR or Lime Away products (rinse very thoroughly!)

All cage accessories, toys, hides, etc. must be regularly replaced and cleaned, not just the bottom pan and substrate. However, rats may be stressed by a complete lack of familiar scent after a thorough cage cleaning and may even mark more as a result. It is advised to leave a few cage items untouched at a time so the rats do not experience stress and/or feel the need to mark their territory as vigorously.

➤ **Bedding & Litter**

- Rats will frequently nibble on their bedding and litter, thus **never use clumping litter of any sort**. This can cause serious blockages if ingested!
- No matter the bedding or litter type, choose an unscented version. Scents can easily upset the delicate respiratory system of rats. If it has a scent to you, it is likely to be overpowering for a rat!
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- NO cedar, clay, or silicone. Cedar shavings and silicone litter are **TOXIC** to rats (and other small animals). Clay is extremely dusty, making it dangerous for rats' lungs. Also, it may cause blockages if ingested.
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- All bedding has the potential to bring in unexpected parasites such as mites and lice, usually caused by improper storage at the warehouses/pet stores/etc. "Feed stores" that house their bedding/litter outside or in sheds/barns should be avoided as they are more likely to be affected. Freezing bedding/litter before use may reduce the chance of transmission.

TYPES OF BEDDING & LITTER:

- *Aspen shavings*: Aspen is a hardwood and does not contain the harmful oils of cedar and pine. Aspen shavings are our bedding of choice at CTRR. Not all brands of aspen shavings are equal, however (we use Nepco Lab Supply Aspen and/or Pet Supplies Plus' brand, EasyClean by Pestell). Good quality aspen is low odor, absorbent and it controls odors and ammonia well. Consider using a net laundry bag to shake out any excess dust.
- *Hemp shavings*: Hemp-based bedding is another good choice, though low-dust hemp bedding can be harder to find. Price and quality can vary.
- *Unscented Paper Pellets (such as Back-2-Nature, Cell-Sorb Plus, Small Pet Select, Marshall Ferret Litter, Biofresh, etc)*: These are particularly useful for litter boxes (less so for full cage bedding material). They are generally low dust and absorbent. Try to choose unscented brands that do not contain baking soda or other additives.
- *Other pelleted litter*: Other pelleted litters, such as walnut shell, straw, or aspen, and even alfalfa pellets (rabbit food) can be an option as well.

Avoid corn or wheat based litters as rats may ingest this litter. Consider sifting before use.

- *Eco Bedding, Newspaper (soy-based ink), Shredded Paper, & Paper Towels*: these types of bedding are technically safe for rats, but not nearly as absorbent and odor/ammonia controlling as other choices. Do not use these products for bedding/litter unless you are prepared to clean the cage daily. However, feel free to offer these items as enrichment!
- *Fluffy Paper Bedding (Such as CareFRESH, Kaytee Clean 'N Cozy, Oxbow Pure Comfort)*: While absorbent and soft, most paper-based bedding can be dusty, and all paper bedding needs to be changed very frequently to control ammonia and odor (at least every few days). There are many types and brands of paper-based bedding out there, and quality varies a great deal. Avoid any scented paper-based beddings (such as lavender or rose) or ones containing baking soda or other additives, which can be dangerous. White or colored paper bedding may be less absorbent due to the bleaching/coloring process.
- *Fleece, Towels, T-shirts, U-Haul Blankets, Liners, & Other Fabrics*: Fleece liners and other “cloth” materials are washable and dust free, but are not generally recommended as they require daily attention and considerable upkeep. Fleece and other fabrics have very little ammonia/odor control or absorbency and can be potentially hazardous if tattered or chewed (rats can get stuck in chewed holes or tangled in threads). Avoid anything with a loose thread weave (sweaters, crocheted items, etc). Fleece and other materials also do not allow for expressing digging/burrowing type behaviors, thus are not generally recommended. If you must use fleece/fabric bedding, consider a large dig box with substrate at minimum. We recommend changing liners daily, or at *minimum* every other day.
- *Pine*: Untreated/raw pine shavings (or other types of untreated pine bedding) are dangerous due to the phenols in the wood (the oils that make it aromatic). Kiln-dried pine has supposedly had most of the phenols removed during the drying process, but there is still debate over whether or not it is safe to use. We at CTRR do not recommend pine bedding, as if nothing else, pine tends to be strongly scented and dusty. If you choose to use pine shavings or pelleted pine products, aim for 100% kiln-dried pine that is as low-dust and low-odor as possible.

➤ **Litter Training**

- We recommend using hard plastic or glass storage containers (such as Sterilite) for rat litter boxes, though regular small cat litter pans work fine unless you have heavy chewers. There are also “corner” litter pans available that work well on cage shelves. A good rule of thumb is to have one good sized litter pan on any solid “floor” or full size level. A smaller box in the back corner of any shelf that is closest to favorite hammocks/beds may also be helpful.

- Rats will typically choose a particular corner (or corners) to do the majority of their business. This is where you should place your litter box(es). At least once a day (the more frequently, the better), physically pick up droppings from the cage and place them into the litter box(es). Leave a small amount of dirty litter in the pan when cleaning to help maintain their scent. In the wild, rats will scent-mark rocks, so placing a rock or piece of brick in the pan may help the process.
- Not all rats will take to litter training, and very few are 100% perfect at it. Babies/very young rats should not be expected to solely use a litter box. Many rats do get better at it with maturity, and spayed/neutered rats are often easier to litter train.
- [How To Litter Train Your Rats \(in 4 Easy Steps\)](#)
- [What Is A Pee Rock And Do Rats Like To Pee On Pee Rocks?](#)
- [HOW TO LITTER TRAIN RATS!](#)

➤ **Water**

- Never use a bowl as your rats' ONLY water source. The water can easily become contaminated or spilled, which can lead to dehydration, not to mention create an unsanitary mess. There are many styles of gravity bottles on the market. Glass bottles will last longer and sanitize more thoroughly than plastic. Check that water bottles are functioning properly daily and change/clean them frequently. We strongly recommend using multiple bottles per cage to provide a "backup" source if one malfunctions.
- Water bottles we recommend are Lixit brand (Chew-Proof Glass), Oxbow, and Choco-Nose. Cheaper plastic options are much more likely to leak and/or break. *Always "test" the bottle after hanging to be sure water is able to dispense!*

➤ **Enrichment & Exercise**

Rats are very intelligent animals that need environmental enrichment both inside and outside of their cage to thrive. We DO NOT recommend exercise balls for rats. Rats rely on their sense of smell and touch to navigate, especially whiskers. Inside these balls, they can use none of these. There are several better options for play time:

- *Exercise Wheels:* Many, but not all, rats will happily use an appropriately sized running wheel (we strongly suggest 14"-16" - although we personally used 12" Silent Spinners for years without issue before larger wheels were commonly available, larger is better!) Using a wheel that is too small stresses the spine and tail, which can cause permanent damage, and rats are less likely to use them in

the first place. Wheels should have a solid running surface to prevent injuries. Do not use “saucer” type wheels for rats. For quality larger wheels, [Pandamonium Pets](#), [Pet Revolution](#), or [YKD](#) are good options. [Niteangel](#) has a wheel that may work for rats (no personal experience with this one). Appropriately sized wheels are unfortunately rather more expensive, but well worth the extra cost. You can make your own if you are crafty (using cake pans and lazy susan pieces - check Youtube!)

- *Playpens:* Kiddie pools, tables, and beds make great free range play areas. Just pop on an old blanket and create a temporary playground with boxes, tubes, toys, etc. Amazon sells a [playpen](#) that can be used for rats that is relatively inexpensive (although some rats can jump or chew out, use only with supervision!) We recommend putting it together with metal zip ties rather than the connectors it comes with. You can also make your own with coroplast or other materials!)
- *Toys:* Houses, hammocks, litter boxes, and other cage accessories will last longer if you give your rats plenty of opportunities to chew, forage, shred, push, pull, carry, climb, and more. Bird and cat toys are great choices and can be hung or strewn about. Dog ropes are popular, as well as seagrass mats, bird ladders, mirrors, perches, ledges, etc. CAUTION: No stuffed toys, leather, or rawhides (potentially toxic and/or choking hazards).
- *Shredding/Nest Building:* There are many great options to provide shredding outlets for rats. They love to turn all sorts of stuff into confetti fluff and build nests: newspaper, paper towels, toilet paper, tissue, cardboard boxes, scraps of fabric, phone books, etc. Dried orchard grass is well-liked for nest building, as well. **Do not provide “polyfill” (crafting fluff)** as bedding or nesting material for rats. It can present serious choking hazards and tangle around toes.
- *Dig Boxes/Foraging:* These are great for outside of cage play, though can be messy! Fill a deep storage box with organic soil (purchased, not from outside) or sterile coco coir. You can add treats, vegetables, or even grow wheatgrass for them to forage. Other “dig” boxes can be filled with shredded paper, ping pong balls, pom poms, or other items that encourage searching. Foraging toys are also ideal: balls, boxes, toilet paper tubes, etc filled with shredded paper or hay and a few treats can provide hours of fun. Try a Snuffle Mat made for dogs or rabbits!
- *Other Enrichment:* Rats love little cubby holes, beds, and houses to sneak away for privacy. Plastic “igloos,” PVC pipes, terracotta pots, coffee cans, cardboard boxes, tissue boxes, and hammocks are all greatly appreciated. Be sure to wash/replace all these items frequently. [20 Free or Cheap DIY Rat Toys](#)

NOTE OF CAUTION: If an item is not **specifically made/designed for pets**, it may have been treated with something that is potentially dangerous. A lot of wooden, wicker, or fabric/material items not specifically labeled for pet use (i.e baskets, wine racks, outdoor wood fencing, etc) are treated with toxic sealants for pest control, ease of cleaning/water resistance, or even with fire retardants.

II) Diet

➤ Staple Diet

- *Lab Blocks/Kibble*: These are solid foods specifically formulated to provide proper nutrition for rats and avoid selective feeding habits. A good quality lab block or rodent kibble should be the main staple of your rats' diet. We suggest starting with about ½ to 1 ounce per rat per day, and adjusting if necessary. This can vary due to age, size, and activity level. **We do not recommend free-feeding for most healthy adult rats.** Obesity is common in pet rats and can lead to a shorter lifespan and increased health issues. Recommended brands:
 - Oxbow Essentials. Can be found at many pet stores in 3-4 lb bags or online in 20 lb bags. Oxbow also has a "Young Rat" formula that is unfortunately not very palatable, but supplementing Essentials with some extra protein is generally seen as adequate. This diet does contain commercial fish meal which is somewhat controversial. The "Garden Select" Oxbow formula does not contain fish meal but is *generally* less recommended due to high grass/hay content as well as inclusion of cane molasses.
 - Supreme Pet Foods Science Selective Rat & Mouse Food. Available online and in some pet stores in 4.4 lb bags. It has high quality ingredients, is low in sugar, and is highly palatable. It is a vegetarian diet thus may not be considered ideal by some (as rats are opportunistic omnivores), and there are some concerns about it being formulated for both rats and mice.
 - Harlan Teklad/Native Earth/Envigo. Traditional "lab block" diet, higher quality than most, generally highly recommended. Unfortunately, it can be more difficult to source. It comes in several formulas with varying fat/protein levels and ingredients (we suggest 2014 for adults/seniors and 2018 for younger rats). Amazon, ebay, or other online retailers have this diet for sale in small quantities.
 - Purina LabDiet, Mazuri, Kalmbach (18%). Other traditional "lab block" type diets. Online retailers or farm & feed stores may carry 50 lb bags. These formulas are acceptable, though not our preferred diets due to some controversial ingredients. NOTE: The

small bags of Mazuri sold in some pet stores may be too high in protein for some adult pet rats.)

- *Commercial Grain, Nut, & Seed Mixes:* These diets are typically high in fat, protein, and added sugars. They are **not** formulated to provide appropriate nutrition as a main staple, especially as rats tend to pick and choose which parts of the mix to consume. Most commercial seed mixes contain ingredients that are indigestible to rats (such as alfalfa pellets), and result in a lot of wasted product. Many mixes also use dangerous preservatives and color additives. Dried whole or split corn kernels can contain aflatoxins. We suggest avoiding these products.
- *Homemade mixes:* The most popular of these is based on the “Shunamite Diet,” created by Alison Campbell and modified by those living in the USA. While this makes a great reference for supplemental feeding/treat ideas, we do not generally recommend feeding solely a homemade mix due to the difficulty in meeting all of a rat’s daily nutritional needs and the potential for selective feeding behaviors. If you must do a homemade mix, be sure to properly research and formulate your mix carefully and tailor it to your individual rats’ needs (see Shunamite Diet - USA on Facebook). Be aware that with multiple rats sharing a cage it is impossible to control that each rat is eating the proper amount/ratio of the ingredients, thus this may potentially cause an unbalanced diet. You can find this diet offered pre-made for sale on etsy and similar sites, but quality/nutritional content may vary.
- *Dog food:* While certain brands of dry dog food/kibble make an acceptable occasional treat for rats, dog food as a staple diet is wholly inappropriate for rats. High quality brands of dog food are far too high in protein and fat and too heavily meat-based for rats, but low quality brands of dog food (that typically contain less meat protein and more grain or soy-based ingredients) are unsuitable as well. Even if the basic ingredients and protein/fat percentages of these foods appear similar to those of certain rat lab blocks, micro/macro nutrients, vitamin analysis, quality of ingredients, and processing quality of foods are all just as important. Please do not feed your rat dog food as a staple diet, and avoid feeding cheap brands even as treats.
- *Hog feed, cattle cubes, or other “farm animal” feed:* Some people opt to provide livestock feed to their rats due to the apparent similarity of some formulas to traditional lab block diets. These diets are not formulated for rats, but for the mass production of farm animals. We advise against them for the same reasons as listed above for dog food.

➤ **Fruits & Veggies**

- Fresh greens/vegetables are a key component to rat health and are best offered daily at the rate of approximately ½ to 1 oz per rat. Fruits are a wonderful treat to offer (in small quantities due to high sugar content - no more than the size of a thumbnail for most fruits).
- Introduce new fruits and vegetables to your rats' diet one at a time to avoid any gastrointestinal upset. Remove any uneaten produce after 24 hours. Never feed your rats anything not fit for human consumption - if you wouldn't eat it, neither should your rats!

➤ **Proteins & Dairy:**

A rat diet should aim somewhere around 14-18% protein (a bit more for growing babies up to 3-4 mos). Most good quality blocks/kibble will provide this need. Too much protein can cause skin and health problems. Additional protein should be offered to adults only as occasional treats. Senior rats may need diets even lower in protein.

Dairy is high in sugar and can cause diarrhea. In general we do not recommend feeding dairy products to rats. Note: For prolonged antibiotic treatment, probiotics or non-dairy yogurt with live cultures may be recommended to maintain proper gut flora.

○ ***Healthier choices include:***

- Chicken & Poultry. Bones are also nutritious & safe. Rats grind their food to a fine powder/paste, so bones do not present a choking hazard as with other species. They double as a fun chewing opportunity!
- Crickets & Mealworms. Only purchase these from a pet store or feed supplier. Wild insects can contain parasites. We recommend freeze dried options.
- Eggs. Hard boiled, scrambled, with or without shell.
- Canned Oysters. Non-smoked contain less sodium. These can be particularly advantageous for growing rats up to 3-4 mos. Oysters contain copper and protein, which growing babies need more of than adults.

➤ **Treats**

Limit foods high in fat, salt, or sugar such as nuts, seeds, sugary fruits (banana, grapes, dried fruit), yogurt drops, cookies, chocolate, and other "junk" food. Rats will gobble them up happily, but a little goes a long way.

Healthier treat options include:

- Baby Food - Fruits & Veggies - Healthy Table Scraps - Raw Pasta - Plain Cheerios or other low sugar cereals - Unsalted/Unbuttered Popcorn - Raw or Puffed Oats & Grains - Baby cereal “puffs” - Toddler cookies and snacks

➤ **Harmful Foods**

- There is some evidence to conclude that the D-limonene found in some fruits can cause cancer in male rats when fed in large quantities. Consider avoiding feeding male rats citrus fruits and tomatoes. This includes juice.
- Pits or seeds of many fruits, including apple seeds, peach/plum pits, etc. are generally unsafe for consumption. Avocado RIND and PITS/STONES are harmful to rats. Be sure to only feed the flesh of the fruit away from the rind and pit.
- Although not conclusive, it has been recorded that poppy seeds can cause severe immediate respiratory failure. Best not to risk it.
- Sticky, thick foods like straight peanut butter or soft bread are a choking hazard. Only offer these items in small amounts (thinly spread/diluted) and while being observed, if at all.
- Carbonation. Rats cannot burp, so this can cause serious digestive issues.
- Blue cheese contains a mold that is toxic to rats. Dairy products in general are not recommended for rodents, despite the cheese stereotype! Dairy products tend to be high in sugar and can cause digestive upset.
- RAW/UNCOOKED potatoes (including sweet potatoes) & beans are toxic (for humans, too!). Cooked, they are an excellent option.
- RAW/UNDERCOOKED meat, fish, or eggs are not recommended - food safety 101!
- Alcohol and other mood-altering substances are very dangerous for pets.

<https://www.smallpetjournal.com/what-do-pet-rats-eat/> has a good list of foods and recommended portions.

NOTE: We strongly advise against feeding rats treats through the bars of their cage, as tempting as it can be. Rats do not have good eyesight and are very food motivated. If

they are accustomed to receiving goodies through the cage bars, this usually leads to a bad habit of grabbing ANYTHING that comes near the cage, including fingers - mistaking them for food and even causing injury. This habit is often difficult to break, and can result in a rat being labeled a “biter” and “aggressive.” **Always open the cage to provide food and treats, and consider adding a cue such as saying the word “treat” or making a clicking noise.**

III) Common Health Issues

Rats can potentially suffer from a variety of health concerns throughout their lifetime. Rats are also masters at hiding illnesses due to being prey animals, and thus diligence is required to avoid unnecessary suffering. It is highly recommended to identify a qualified veterinarian experienced with treating pet rats in your area as soon as possible, preferably before one is needed (see [Recommended Rat Veterinarians](#)).

Please be advised that rats are considered “exotic” pets and thus may incur higher veterinary costs. If you are unwilling to seek veterinary care for rats, and/or cannot afford at minimum the cost of a veterinary exam, basic medications, and euthanasia, please reconsider keeping rats as pets.

Some of the more common health issues rats face may include:

➤ Parasites

- Ectoparasites: Mites and lice are the most common ectoparasites found in pet rats. These parasites are most commonly acquired through exposure to an infected pet or through contaminated bedding/litter. Signs of issues may include increased itching/scratching, hair loss, scabs (especially around chin/face and shoulders), lethargy, weight loss, and even self-mutilation in severe cases. Most types of mites are not visible to the naked eye; lice present as tiny moving brown/red dots (along with silvery nits on the hair shafts). Puppy/kitten/cat Revolution (not Revolution Plus!) dosed by weight is the most effective and safest treatment. Freezing bedding before use may help reduce the likelihood of your rats contracting ectoparasites.
- Endoparasites: Rats can also suffer from endoparasites such as pinworms, roundworms, and tapeworms, just as cats and dogs do. Symptoms may include diarrhea, foul-smelling stool, blood-tinged stool, weight loss, and lethargy. Treatment options may include Revolution, fenbendazole, and/or praziquantel. When obtaining new rats, it is a good idea to have their stool tested if possible.

➤ Respiratory issues

- Respiratory issues are one of the most common ailments of pet rats. Early signs may include excessive sneezing, audible congestion (often described as “cooing or oinking”, may be nasal to start and progress to lungs), clicking, red discharge from the nose and/or eyes (called porphyrin). Novice owners sometimes mistake early signs of respiratory issues for normal rat vocalizations. More severe and/or

chronic respiratory infection signs may include wheezing, heavy congestion, fluffed-out fur, lethargy, weight loss, inappetence, labored breathing, and open-mouth breathing.

- Treatment for respiratory issues often includes a combination of oral antibiotics and nebulizing therapy, but may also include other medications. Respiratory disease is treatable in most cases, and catching respiratory signs early and treating promptly is ideal for the rat's best chance of a full recovery. Unfortunately respiratory disease can become chronic and progressive in many rats. Highly aggressive, longer term treatment therapy is often necessary if a rat reaches these stages, and may not be successful.
- A rat suffering with severe respiratory issues not responsive to treatment does not have a good quality of life and humane euthanasia is warranted in most cases. We sadly see FAR too many rats suffering unnecessarily with advanced respiratory disease symptoms. It is far better to humanely euthanize than allow a rat to struggle to breathe, lose excessive weight, and be unable to do normal rat behaviors.

➤ **Tumors**

- Tumors are another common health issue in pet rats. While there are many kinds of tumors, unspayed female rats are particularly prone to mammary tumors and are at highest risk. Spaying female rats as young as possible is recommended for best prevention. If a rat develops a growth, in most cases, surgical removal is best done as soon as it is noticed. The larger a tumor grows, the more difficult and lengthy (and thus more risky and more costly) surgery will be. Spaying an intact female rat at the same time as a mass removal reduces the chances of tumor recurrence and is highly recommended. This may not be possible if a mass grows too large, necessitating a spay later which adds to expense.
- Other types of tumors may occur in both sexes. Rats who are overweight/obese are at higher risk for tumor development, so keeping rats at a healthy weight and feeding a proper diet is recommended to help avoid tumor growth.
- Rats can also suffer from pituitary tumors or other brain tumors. Signs may include ataxia, unequal eye or pupil size, headtilt/circling, stiffness of forelimbs and/or knuckling, inability to grasp food/difficulty eating, weight loss, general weakness, seizures, and behavioral changes. Prognosis is generally poor in these cases, but medical management along with palliative care is possible. While tumors of this nature are inoperable, there are some medications and treatments (usually steroids in combination with cabergoline or bromocriptine)

that can help to potentially shrink the tumor, reduce symptoms, and improve/extend quality of life.

➤ **Abscesses**

- Abscesses (encapsulated areas of infection, may or may not have draining fluid) are common in rats. An abscess can result from any wound or surgery site. While some minor abscesses may be treated at home, large abscesses, abscesses from the result of surgical procedures, or any abscesses found on/around the face or groin should be treated by a veterinarian.

➤ **Malocclusion**

- Rats' teeth grow continuously throughout their lifetime. Normally, chewing/eating and bruxing wears down their teeth appropriately and intervention is not required. Genetic defect, injury, or illness can cause the teeth to become out of alignment, leading to inability to eat, injury to the mouth/gums, infection, and even death. Should your rat develop this issue, it requires regular trimming of the teeth by a veterinarian using proper dental tools, usually under sedation. We do NOT recommend trimming teeth at home due to the risk of injury, splintering the teeth, and causing other painful damage leading to infection.

➤ **Hind-end Degeneration**

- As rats age, many develop generalized weakness to their hind end (spine, legs, tail). This process happens gradually and is not to be confused with sudden inability to walk or lameness. Care must be taken to keep rats with severe hind-end degeneration clean, safe, and comfortable. Older rats with this issue may need cage accommodation to prevent injury due to falls or catching feet on ramps/shelves/etc. Nail trimming may become required if they lose the ability to wear down their nails themselves. In older males, penis plugs may become common and require daily checks.
- Keeping your rats at a healthy weight, providing appropriate exercise, and supplementing with B vitamins and joint supplements may help reduce the likelihood of occurrence. There may be a link with HED and kidney disease, which is also common in older rats. Consider limiting protein levels and phosphorus in senior rats.

➤ **Pododermatitis (bumblefoot)**

- Bumblefoot is a medical condition where open sores develop upon the hind feet, often growing quite large. It is a condition that may result from any of the following (or a combination thereof); improper sanitation of habitat, obesity, genetic predisposition, injury, and improper/rough/hard cage surfaces. It is NOT a result of using wire flooring in itself, despite common belief. Bumblefoot is notoriously difficult to treat. At any sign of redness or unusual bumps to the feet

(we recommend regular inspection), seek veterinary treatment and environmental modification immediately.

Be very cautious when searching for medical advice online and on various social media forums. There is a plethora of outdated, misleading, and outright inaccurate information and poor advice (however well-intentioned). The best online resource for reading up on rattie ailments is <https://ratguide.com/>.

Top tips for keeping your rats as healthy as possible:

- practice good husbandry, keeping their habitat and play areas safe and sanitary. Neither rats nor their habitats should ever “stink”

- provide good air quality (avoiding scents/smoke/perfumes/other contaminants in their vicinity); consider investing in an appropriate air purifier/filter

- feed a nutritious, balanced diet that includes fresh, whole/unprocessed foods, and keep your rats at a healthy weight. Fat rats are NOT healthy rats. Underweight rats also need medical attention and may require supplemental feeding measures or other interventions. Significant/consistent weight loss, especially in senior or sick rats, should not be ignored or minimized!

- consider spaying female rats (especially ones from unknown genetic backgrounds) if you have an experienced vet

- do a basic home “health check” physical exam frequently (at least once a week - see checklist below). Be familiar with your rats’ “normal” and take careful note of any deviations in behavior

- invest in a postal or food scale and weigh your rats regularly (weekly if possible), taking note of any unexpected changes (often a first sign of issues!)

- seek veterinary care promptly if an issue presents, and if first attempt at treatment is unsuccessful, follow up for additional care and/or seek a second opinion

- invest in a quality nebulizer and chamber setup to manage and treat respiratory issues

- consider humane euthanasia (performed by a veterinarian) if your rat is incurably ill or debilitated from age; consult a “quality of life” scale if uncertain if a rat is suffering. As prey animals, rats will often still eat and otherwise hide their discomfort - rats rarely “pass away peacefully at home”

Weekly Rat Home Health Check Guide:

1. Weigh your rats and document/address any notable changes or trends - unexplained changes in weight are important to address!
2. Check rats' teeth and note any irregularities, discoloration, or overgrowth. Adult rat teeth should be bright orange/dark yellow, not white
3. Check for any significant or frequent eye or nasal discharge (often red in color - called porphyrin).
4. Look/smell in their ears, note any discharge, redness, or odor
5. Observe for excessive sneezing, congestion (often described as "monkey," "guinea pig," or "pigeon" noises), and/or labored/heavier breathing. Listen to their lungs (hold them up to your ear like a "rat phone"). Rats may suck in their sides, "rock" when breathing, or take deeper breaths ("sigh") when having difficulty getting enough oxygen. Any open mouth breathing or gasping or purple/blue tinged extremities is an emergency situation!
6. Gently palpate their abdomen and along mammary tissue (particularly under arms/legs/neck and near groin)
7. Ruffle through their coats checking for any parasites, cuts, scabs, lumps, or bumps. Take note of puffy/fluffed out fur (piloerection) - a sign of illness or pain
8. Check feet and tail for signs of injury or abnormality, trim overgrown nails
9. Check for "penis plugs" in males - most common in intact (non-neutered) older males, especially ones with hind-end degeneration
10. Check for any vaginal discharge in females - any blood or purulent material is not normal (rats do not have "periods")